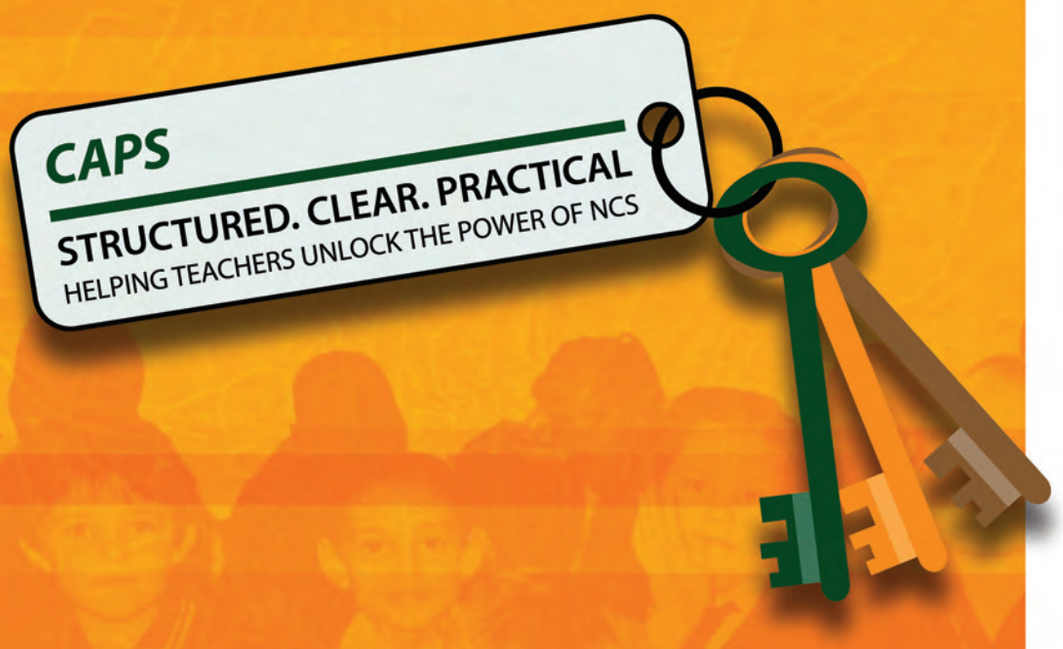
ISIZULU MATHEMATICS

National Curriculum Statement (NCS)

Curriculum and Assessment Policy Statement



Foundation Phase
Grades 1-3

basic education
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REPUBLIC OF SOUTH AFRICA

basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

ISITATIMENDE SENQUBOMGOMO YOHLELO LWEZIFUNDO NOKUHLOLA

IBANGA 1-3

IZIBALO

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FOREWORD BY THE MINISTER



Our national curriculum is the culmination of our efforts over a period of seventeen years to transform the curriculum bequeathed to us by apartheid. From the start of democracy we have built our curriculum on the values that inspired our Constitution (Act 108 of 1996). The Preamble to the Constitution states that the aims of the Constitution are to:

- heal the divisions of the past and establish a society based on democratic values, social justice and fundamental human rights;
- improve the quality of life of all citizens and free the potential of each person;
- lay the foundations for a democratic and open society in which government is based on the will of the people and every citizen is equally protected by law; and
- build a united and democratic South Africa able to take its rightful place as a sovereign state in the family of nations.

Education and the curriculum have an important role to play in realising these aims.

In 1997 we introduced outcomes-based education to overcome the curricular divisions of the past, but the experience of implementation prompted a review in 2000. This led to the first curriculum revision: the *Revised National Curriculum Statement Grades R-9* and the *National Curriculum Statement Grades 10-12* (2002).

Ongoing implementation challenges resulted in another review in 2009 and we revised the *Revised National Curriculum Statement* (2002) to produce this document.

From 2012 the two 2002 curricula, for *Grades R-9* and *Grades 10-12* respectively, are combined in a single document and will simply be known as the *National Curriculum Statement Grades R-12.* The *National Curriculum Statement for Grades R-12* builds on the previous curriculum but also updates it and aims to provide clearer specification of what is to be taught and learnt on a term-by-term basis.

The *National Curriculum Statement Grades R-12* accordingly replaces the Subject Statements, Learning Programme Guidelines and Subject Assessment Guidelines with the

(a) Curriculum and Assessment Policy Statements (CAPS) for all approved subjects listed in this document;

(b) *National policy pertaining to the programme and promotion requirements of the National Curriculum Statement Grades R-12*; and

(c) *National Protocol for Assessment Grades R-12.*

MRS ANGIE MOTSHEKGA, MP
MINISTER OF BASIC EDUCATION

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ISIGABA SOKU – 1: ISINGENISO NESENDLALELO

1.1 ISENDLALELO

IsiTatimende SoHlelo LweziFundo LukaZwelonke seBanga-R kuya kwele-12 (uTaHFuZwe) sikhombisa inqubomgomo yezinhlelo zezifundo kanye nezokuhlola emkhakheni wokufunda esikoleni.

Ukuze kwenziwe ngcono ukusetshenziswa kwaso, kwadingeka ukuthi kube nezichibiyelo ezithile ezizoqala ukusebenza ngoMasingana ngonyaka wezi-2012. Kwabe sekubhalwa umqulu owodwa odidiyele *IsiTatimende SeNqubomgomo YoHlelo LweziFundo NokuHlola* saleso naleso sifundo, okuwumqulu othatha isikhundla *seziTatimende zesiFundo, umHlahlandlela woHlelo lokuFunda kanye nomHlahlandlela wokuHlola Izifundo eBangeni-R kuya kwele-12*.

1.2 UKUBUKA NGAMAFUPHI

(a) IsiTatimende *SoHlelo LweziFundo LukaZwelonke seBanga-R kuya kwele-12 (kuMasingana ngonyaka wezi-2012)* simele inqubomgomo yokufunda nokufundisa ezikoleni zaseNingizimu Afrika futhi siqukethe lokhu:

(i) NesiTatimende seNqubomgomo yoHlelo LweziFundo nokuHlola kuleso naleso sifundo esifundwayo.

(ii) Umqulu weNqubomgomo, i-*National Policy pertaining to the programme and promotion requirements of the National Curriculum Statement IBanga-R kuya kwele-12,kanye*

(iii) Nomqulu weNqubomgomo, i-*National Protocol for Assessment IBanga-R kuya kwele-12 kuMasingana ngonyaka we-2012).*

(b) *IsiTatimende SoHlelo LweziFundo LukaZwelonke seBanga*-R-12 *(kuMasingana 2012), sithatha indawo yeziTatimende zoHlelo LweziFundo lukaZwelonke ezimbili ezikhona njengamanje; okuyilezi*

(i) *IsiTatimende soHlelo LweziFundo LukaZwelonke Olubukeziwe IBanga-R kuya kwelesi-9, IGazethi KaHulumeni* ye-23406 zingama-31 kuNhlaba ngonyaka wezi -2002 kanye

(ii) *IsiTatimende soHlelo LweziFundo LukaZwelonke IBanga le-10 kuya kwele-12, IGazethi KaHulumeni* ye-25545 ziyi-6 kuMfumfu ngonyaka we-2003 neye-27594 ziyi-17 kuNhlaba ngonyaka we-2005.

(c) IsiTatimende soHlelo LweziFundo lukaZwelonke esibekwe sacaciswa esigabeni u-b(i) kanye no- (ii) siqukethe le miqulu yenqubomgomo elandelayo esizomiswa ukusetshenziswa kuthi esikhundleni sayo kungene i*siTatimende soHlelo LweziFundo IBanga-R kuya kwele -12 kusuka ngonyaka wezi-2012 kuya kowezi-2014:*

(i) Isifundo/isiTatimende sesiFundo, umHlahlandlela woHlelo lokuFunda kanye nomHlahlandlela wokuHlola kwesiFundo IBanga-R kuya kwelesi-9 kanye neBanga le-10 kuya kwele -12;

(ii) Umqulu wenqubomgomo, i*National Policy on Assessment and Qualification for Schools in the General Education and Training Band okwashicilelwa kwaba umthetho kuGovernment Notice No.124 kuGovernment Gazette No. 29626 mhla ziyi-12 kuNhlolanja ngonyaka wezi-2007.*

(iii) Umqulu weNqubomgomo, i-*National Senior Certificate: iKhwalifikheshini yezinga lesi-4 kuNational Qualifications Framework (NQF),* elishicilelwa laba semthethweni *kuGovernment Gazette No. 27819* mhla zingama- 20 kuNtulikazi ngonyaka wezi-2005;

(iv) Umqulu weNqubomgomo, *isichibiyelo somqulu wenqubomgomo, weNational Senior Certificate: iKhwalifikheshini yezinga lesi-4 kuNational Qualifications Framework (NQF), ukubhekelela izingane ezinezidingo eziyisipesheli,* elethulwa *kuGovernment Gazette, No. 29466* mhla ziyi-11 kuZibandlela ngonyaka wezi-2006, lifakiwe nalo kulo mqulu wenqubomgomo, i-*National Policy pertaining to the programme and promotion requirements of the National Curriculum Statement IBanga-R kuya kwele-12; kanye;*

(v) Nomqulu wenqubomgomo,*isichibiyelo somqulu wenqubomgomo, weNational Senior Certificate: iKhwalifikheshini yezinga lesi-4 kuNational Qualifications Framework (NQF),* ukubhekelela i-*National Protocol for Assessment (IBanga-R kuya kwele-12), elashicilelwa laba semthethweni kuGovernment Notice No. 1267 kuGovernment Gazette No. 29467* mhla ziyi-11 kuZibandlela ngonyaka wezi-2006*;*

(d) Umqulu wenqubomgomo, *i-National policy pertaining to the programme and promotion requirements of the National Curriculum Statement IBanga-R kuya kwele-12,* kanye nezigaba ezitholakala esiTatimendeni seNqubomgomo soHlelo lweziFundo nokuHlola njengoba kubekiwe ezahlukweni kusuka kwesesi-2,3 kanye nesesi-4 kulo mqulu kuyingxenye yemithetho nemigomo *yesiTatimende soHlelo lweziFundo IBanga-R kuya kwele-12.* Ngalokho-ke, *ngokuka Section 6 A* we*South African Schools Act,1996 (Act No.84 of 1996,)* kwakha isisekelo sokuthi uNgqongqoshe weMfundo esemaZingeni aPhansi akwazi ukunquma imiphumela kanye nemigomo emincane nje okungasukelwa kuyo, kanye nenqubo, nendlela yokwenza ukuhlola kokuphumelela komfundi ukuba kusetshenziswe ezikoleni zomphakathi nalezo ezizimele.

1.3 IZINHLOSO EZIVAMILE ZOHLELO LWEZIFUNDO ZASENINGIZIMU AFRIKA

(a) *IsiTatimende soHlelo lweziFundo lukaZwelonke IBanga-R kuya kwele-12* sikhombisa lokho okuthathwa ngokuthi kungulwazi, amakhono namagugu adinga ukufundwa ezikoleni zaseNingizimu Afrika. Lolu Hlelo lweziFundo luhlose ukuqinisekisa ukuthi abafundi bathola babuye basebenzise ulwazi namakhono njengendlela ahambisana ngayo nezimpilo zabo. Ngale ndlela uHlelo lweziFundo lukhulisa ulwazi lwezimo abaphila kuzona, babenozwelo kuzibopho zomhlaba jikelele.

(b) *IsiTatimende SoHlelo LweziFundo LukaZwelonke seBanga-R kuya kwele-12 sihlose lokhu:*

- Ukuhlomisa abafundi, noma ngabe bavela kuziphi izimo zenhlalo yomphakathi nezomnotho, ubuzwe, ubulili, ukukwazi ukusebenzisa umzimba nengqondo/ukuhlakanipha, ngolwazi, amasu nokungamagugu adingekayo ukuze bakwazi ukuzenelisa, nokubamba iqhaza elibonakalayo emphakathini njengezakhamuzi zezwe elikhululekile.
- Ukuvumela abafundi ukuba bangene emikhakheni yemfundo ephakeme.
- Ukwenza kube lula kubafundi ukwedlulela ezikhungweni zemisebenzi ngemuva kokuqeda esikoleni/ imfundo yamabanga aphakeme; kanye
- Nokwedlulisela kubaqashi ulwazi oluphelele ngamakhono nakwazi ukukwenza ngempumelelo umfundi.

(c) *IsiTatimende soHlelo lweziFundo lukaZwelonke seBanga-R kuya kwele -12 sesekwe yile migomo elandelayo:*

- *Ukuguquka kwezenhlalo yomphakathi*; ukubhekelela ukungalingani kwezemfundo ngesikhathi esedlule ukuze kulungiswe, nokuthi amathuba okufunda alinganayo atholwe yiwo wonke umphakathi;
- *Ukufunda ngokuphapheme nangokuhlolisisa*; ukukhuthaza indlela yokufunda ngokuphapheme nangokuhlolisisa ekufundeni , kunokuthi abafundi bamane bagxishe emakhanda lokho abanikwe khona bebe bengayiqondi incazelo yakho;

- *Ulwazi oluphakeme namakhono aphakeme*, ubuncane obemukelekile umthetho wokulinganisa ulwazi okumele luzuzwe ebangeni ngalinye kumele bucaciswe, kubekwe nemigomo ephezulu okumele izuzwe kuzo zonke izifundo;

- *Inqubekela phambili yolwazi*; okuqukethwe nengqikithi yalelo nalelo banga kukhombise inqubekela phambili ukusuka kokulula kuya kokulukhuni.

- *Amalungelo esintu, ukudidiyela, ubulungiswa bezemvelo nezenhlalo yomphakathi;* ukufaka imigomo nenkambiso yobulungiswa bezemvelo nezenhlalo kanye namalungelo esintu njengoba echaziwe kumThethosisekelo waseNingizimu Afrika. IsiTatimende soHlelo lweziFundo lukaZwelonke seBanga-R kuya kwele-12 (Jikelele) sinozwela ezindabeni zokwehlukahlukana kwesintu njengobuphofu, ukungalingani, ubuzwe, ubulili, ulimi, ubudala nokukhubazeka kanye nezinye izimo;

- *Ukwazisa ngezinhlelo zolwazi lwendabuko*, ukwazisa ukunotha komlando namasiko aleli zwe, nomthelela obalulekile wokufundisa ngamagugu aqukethwe ngumThethosisekelo okube nawo njengomsuka wenguquko ukusiza ekuguquleni amagugu abafundi; kanye

- *Nokukholakala, uhlonze kanye nokwenza ngempumelelo*, ukuhlinzeka ngohlobo lwemfundo olungaqhathaniseka ngokuqeqesheka nangazo zonke ezinye izindlela njengakwamanye amazwe.

(d) Isitatimende Sohlelo LweziFundo Lukazwelonke seBanga-R kuya kwele-12 sihlose ukukhiqiza abafundi abazokwazi:

- Ukubona baxazulule izinkinga, bakwazi nokwenza izinqumo besebenzisa ukucabanga ngokuhlaziya nangobuchule;

- Ukusebenza ngokuzinikela nabanye njengamalungu eqembu;

- Ukulungiselela, bakwazi ukuziphatha bona baphathe nemisebenzi yabo ngokuyikho;

- Ukuqoqa, bahlaziye, bahlele, bahlanganise, bahlolisise ngokucubungula ulwazi.

- Ukuxoxisana ngempumelelo besebenzisa izinto ezibukwayo, ukufanekisa ngezimpawu kanye namanye amakhono olimi ezimweni ezahlukene;

- Ukusebenzisa isayensi nobuchwepheshe ngempumelelo nangokuhlolisisa bekhombisa nokuzinikela kwezemvelo kanye nempilo yabanye; kanye

- Nokukhombisa ukuqondisisa umhlaba njengenkundla yezinhlelo ezihlobene ngokubona ukuthi izimo zokuxazulula izinkinga azenzeki ngazodwana.

(e) *Ukuhlanganisa izinhlobo zabafundi* yikho okumele kube ngumgogodla wokuhlela, ukulungiselela, nokufundisa kuleso naleso sikole. Lokhu kungenzeka kuphela uma bonke othisha bekuqonda kahle ukuthi bazobabona futhi babasize kanjani abafundi abanezihibe ekufundeni, nokuthi bazokuhlelela kanjani ukwehlukahlukana kwabafundi.

Okusemqoka ngokuhlanganisa izinhlobo zabafundi, ukuqinisekisa ukuthi zonke izithiyo ziyabonwa zigudluzwe ngayo yonke indlela ezikoleni, kumbandakanya othisha, amakomidi asemahhovisi ezemfundo, amakomidi ezikoleni, abazali kanye nezikole ezikhethekile ezisetshenziswa njengemithombo yolwazi. Ukugudluza izithiyo emakilasini, othisha bangasebenzisa amaqhinga ahlukene ezinhlelo zezifundo njengalezo zitholakala eMnyangweni wezeMfundo eyisisekelo: *Guidelines for Inclusive Teaching and Learning (2010).*

1.4 UKWABIWA KWESIKHATHI

1.4.1 IsiGaba esiyisiSekelo

(a) Isikhathi sokufundisa emkhakheni weSigaba Esiyisekelo sinjengoba sikhonjisiwe kuleli thebula elingezansi:

ISIFUNDO	IBANGA-R (AMAHORA)	IBANGA LOKU-1 KUYA KWELESI-2 (AMAHORA)	IBANGA LESI-3 (AMAHORA)
ULimi lwaseKhaya	10	7/8	7/8
ULimi lokuQala lokwEngeza		2/3	3/4
Izibalo	7	7	7
Amakhono Empilo:	**6**	**6**	**7**
• Ulwazi lokuqala	(1)	(1)	(2)
• Ubuciko bokusungula	(2)	(2)	(2)
• Isifundo sokuzivocavoca	(2)	(2)	(2)
• Okuqondene nomuntu uqobo kanye nokuphila emphakathini	(1)	(1)	(1)
ISAMBA	**23**	**23**	**25**

(b) Isikhathi sokufundisa seBanga-R, 1 neBanga lesi-2, amahora angama-23 kuthi IBanga lesi-3 kube ngamahora angama-25.

(c) Izilimi zabelwe amahora ayi-10 eBangeni-R kuya kwelesi-2 kanye namahora ayi-11 eBangeni lesi-3. Isibalo esiphezulu samahora ayisi-8 nesibalo esiphansi esingamahora ayi-7 sabelwe ULimi lwaseKhaya kanye nesibalo esiphansi esingamahora ama-2 nesibalo esiphezulu esingamahora ama-3 soLimi lokuQala lokwEngeza eBangeni loku-1 kuya kwelesi-2. EBangeni lesi-3 isibalo esiphezulu esingamahora ayisi-8 nobuncane obungamahora ayisi-7 sabelwe iziLimi zaseKhaya kanye nobuncane obungamahora ama-3 nobuningi obungamahora ama-4 oLimini lokuQala lokwEngeza.

(d) Esifundweni samakhono olwazi lokuqala, kwabiwe Ihora eli-1 eBangeni-R kuya kwelesi-2 kanye namahora ama-2 njengoba kukhonjisiwe ngamahora akubakaki ethebulini eBangeni lesi-3:

1.4.2 IsiGaba esiPhakathi neNdawo (iBanga lesi- 4 kuya kwelesi-6)

(a) Leli thebula elingezansi likhombisa izifundo nesikhathi sokufundisa esibekiwe sesigaba esiphakathi nendawo:

ISIFUNDO	AMAHORA
ULimi lwaseKhaya	6
ULimi lokuQala lokwEngeza	5
Izibalo	6
Isayensi nobuchwepheshe	3,5
Isayensi yezokuhlalisana kwabantu	3
Amakhono Empilo • Ubuciko bokusungula • Isifundo sokuvocavoca umzimba • Okuqondene nomuntu uqobo kanye nokuphila emphakathini	**4** **(1.5)** **(1)** **(1.5)**
ISAMBA	**27,5**

1.4.3 IsiGaba esiPhakeme

(a) Isikhathi sokufundisa IsiGaba EsiPhakeme simi ngale ndlela:

ISIFUNDO	AMAHORA
ULimi LwaseKhaya	**5**
ULimi lokuQala lokwEngeza	**4**
Izibalo	**4.5**
Isayensi yezemvelo	**3**
Isayensi yokuhlalisana komphakathi	**3**
Ezobuchwepheshe	**2**
Isayensi yokuphathwa komnotho	**2**
Ukwazi ngamakhono empilo	**2**
Ubuciko bokusungula	**2**
ISAMBA	**27,5**

1.4.4 IBanga le-10 kuya kwele-12

(a) Isikhathi sokufundisa eBangeni le 10 kuya kwele-12 simi ngale ndlela:

ISIFUNDO	UKWABIWA KWESIKHATHI NGESONTO (AMAHORA)
ULimi LwaseKhaya	**4.5**
ULimi lokuQala lokwEngeza	**4.5**
Izibalo	**4.5**
Ukwazi amakhono empilo	**2**
Okungenani kungakhethwa izifundo ezintathu **eqoqweni B** Isengezelelo B, Ithebula B1 kuya ku-B8 kumqulu wenqubomgomo, *National policy pertaining to the programme and promotion requirements of the National Curriculum Statement IBanga-R kuya kwele-12,* isifundo ngenkombandlela ebhalwe esigabeni sama-28 kumqulu weNqubomgomo obhalwe ngenhla.	**12 (3xAmahora ama-4)**
ISAMBA	**27,5**

Ukwabiwa kwesikhathi ngesonto kungasetshenziswa kuphela esibalweni esiphansi esidingekayo sezifundo zesiTatimende soHlelo LweziFundo lukaZwelonke (TAHFUZWE) njengoba kukhonjisiwe ngenhla, akumele kusetshenziswe kunoma yiziphi izifundo ezengeziwe ohlwini lwenani lezifundo ezivunyelwe. Uma umfundi efisa ukwengeza ezinye izifundo, isikhathi kumele sandiswe ukwenelisa lezo zifundo..

ISIGABA SESI – 2: ANCAZELO, IZINHLOSO, IMAKHONO NOKUQUKETHWE

2.1 ISINGENISO

Kulengxenye yesibili, imfundo yezibalo kumaBanga aphansi kwisitatimende senqubomgomo yohlelo lwezifundo lukazwelonke luzonika othisha incazelo yezibalo, imiphumela eqondile namakhono aqondile, igxile ezingxenyeni zokuqukethwe, isisindo sezingxenye zokuqukethwe ezibalweni, izinsiza kufundisa ezinconyiwe kwizifundo zamaBanga aphansi ezibalweni, inqubomgomo enconyiwe ukwelekelela izingane ezinezinkinga ekufundeni izibalo, izibalo zekhanda kanye nokukhulisa amakhono okufundisa izibalo eBangeni – R.

2.2 ZIYINI IZIBALO

Izibalo ulimi olusebenzisa uphawu nezimpawu ukuchaza uphawu olumele inombolo, okusejiyometri nokukhombisa ubudlelwano ngegrafu. Kuwumsebenzi lapho abantu bebuka, bebeka okumele kanye nokuphenya amaphethini nobudlelwano obuphusile okwenzeka ngokwenza enhlalweni yabo naphakathi kwezinto eziphathelene nezibalo. Igqugquzela ukusebenza ngengqondo okuthuthukisa ukucaBanga ngokuhlelekile nangokujulile, ngokucophelelekile nokuxazulula izinkinga ezinomthelela ekuthatheni izinqumo ezifanele.

2.3 IMIPHUMELA EQONDILE

Ukufunda nokufundiswa kwezibalo, kuhlose ukuthuthukisa umfundi kulokhu okulandelayo:

- ukuqaphela ngobumqoka bokuthi busebenza kanjani ubudlelwano bezibalo ngokwenhlalo, ngokwemvelo, ngokwamasiko nangokomnotho.
- ukuzethemba nokukwazi ukubhekana nezimo ezahlukene zezibalo ngaphandle kokungabaza nokwesaba ukwenza izibalo.
- uthando nentshisakalo yezibalo.
- ukuncoma ubuhle bezibalo.
- ukubona ukuthi izibalo ziwubuchwepheshe bomsebenzi wabantu
- ukuba nomcabango ojulile wokuqonda izibalo; kanye
- nokuthola ulwazi namakhono aqondile adingekayo:
    - ukusetshenziswa kwezibalo ngokwenza, ngokwenhlalo nezinkinga zezibalo;
    - ukufundiswa kwesifundo ezincike ezibalweni (isib.ezinye izifundo); kanye
    - nokuqhuba ulwazi lwezibalo.

2.4 AMAKHONO AQONDILE

Ukuthuthukisa amakhono adingekayo ezibalo, umfundi kufanele:

- ukuthuthukisa ulwazi olufanele lokusebenzisa ulimi lwezibalo;
- ukuthuthukisa ulimi lwezibalo nolwazi lwezinombolo, namakhono okubala nokusebenzisa izinombolo;
- afunde ukulalela, ukuxhumana, ukucaBanga ngokuhlelekile, kanye nokusebenzisa ulwazi lwezibalo alufundile
- afunde ukuphenya, ukuhlaziya, ukubeka okumele ulwazi nokulihumusha
- afunde ukubuza nokuxazulula izinkinga zezibalo; kanye
- nokwakha ngokuqaphela ukubaluleka kwezibalo ezimweni zempilweni nasekukhuleni komfundi.

2.5 IZINGXENYE ZOLWAZI OKUGXILWE KULO

Izibalo emaBangeni aphansi zinezingxenye ezinhlanu. Ingxenye ngayinye ilekelela ekutholeni amakhono athile. Ithebula elilandelayo likhombisa okuqukethwe yizingxenye ngokuvulelekile nezikhethekile emaBangeni aphansi.

Ithebula 2.1 Izibalo zamaBanga aphansi nolwazi okugxilwe kulo

ULWAZI LWEZIBALO		
Ingxenye Yolwazi	**Ulwazi Oluvulelekile**	**Ulwazi Olukhethekile EmaBangeni Aphansi**
Izinombolo, izimpawu kanye nobudlelwano bazo	Ukuthuthukisa ulwazi lwezinombolo olufaka: • incazelo yezinhlobo ezahlukene zezinombolo; • ubudlelwano phakathi kwezinhlobo ezahlukene zezinombolo; • ubudlelwano bobungako bazo ezahlukene; • ukubekwa okumele izinombolo ezinhlobonhlobo ngezindlela ezahlukene; kanye • nomphumela wokusebenza ngezinombolo	Uhla lwezinombolo okufanele luthuthukiswe kuyofika ekupheleni kweBanga lesi 3 lufaka izinombolo eziphelele kuze kufinyele e 1000 kanye namaqhezu ajwayelekile. KumaBanga aphansi ukufundwa kolwazi lwezinombolo luphathelene nezinsiza kufunda eziphathekayo ukuze bakwazi ukubala, bahlukanise, bahlanganise, babale ngokweqa izinombolo ngezindlela ezahlukene, baxazulule izinkinga zezibalo (zamagama), bese bekwazi ukwakha nokuhlakaza izinombolo • Ukubala kusiza abafundi ukuba bathuthukise ulwazi lwezinombolo, izibalo zekhanda, ukuqagela, amakhono okubala nokwazi ukubona amaphethini. • Ukuthuthuka kolwazi lwezinombolo lusiza abafundi ukuba bazi izakhiwo zezinombolo kanye namasu angabasiza ukuthuthukisa ukubala kalula. • Ukukwazi ukuxazulula izinkinga kusiza abafundi ukukwazi ukuxoxa nokubhala imicabango yabo besebenzisa imidwebo nezimpawu. • Abafundi bakhula ekuqondeni indlela yokusebenzisa izinombolo behlanganisa, besusa, behlukanisa nokuphindaphinda. • Abafundi bathuthukisa ulwazi ngamaqhezu ukuxazulula izinkinga zezibalo besebenzisa ukucazelana izinto eziphathekayo nokusebenzisa imidwebo. Izinkinga zezibalo abazenzayo aziveze imiphumela enezinombolo eziphelele kanye nezinsalela noma amaqhezu. Ukucazelana akumele kufake kuphela inani lamaqoqo kodwa kubhekwe ukuthi kungaki eqoqweni ngalinye. Kulesisigaba abafundi akufanele bafunde noma babhale izimpawu zamaqhezu.

ULWAZI LWEZIBALO		
INGXENYE YOLWAZI	**ULWAZI OLUVULELEKILE**	**ULWAZI OLUKHETHEKILE EMABANGENI APHANSI**
Amaphethini, ukuxhumana kanye ne-aljebhra	I-aljebhra ulimi lokuphenya nokuxhumana ngokwezibalo olungabuye lusetshenziswe ekufundweni kwemisebenzi kanye nobudlelwano phakathi kwezingxenyana zezibalo. Umgogodla wolwazi lwalengxenye yezibalo udinga ukuba umfundi akwazi ukusebenzisa amakhono ngendlela efanele ye-aljebhra. Iphinde ibheke: • ukuchaza amaphethini nobudlelwane ngokusebenzisa izimpawu zokuchaza , amagrafu namathebula; kanye • nokukhomba nokuhlaziya okuvamile nokushintsha kwamaphethini, nobudlelwano obusiza abafundi ukuthi baqagele babuye baxazulule izinkinga zezibalo.	KuleliBanga abafundi basebenza ngakho kokubili: • amaphethini ezinombolo (isib.ukubala weqa inombolo); kanye • nokusazibalo mdwebo (isib.izithombe) Abafundi kumele basebenzise izinto eziphathekayo, imdwebo kanye nezimpawu ukukopisha, ukwandisa, ukuchaza nokwakha amaphethini. Ukukopisha iphethini kusiza abafundi ukuba babone ukuthi iphethini yakheke kanjani. Ukuchaza iphethini kusiza abafundi ukuthuthukisa amakhono olimi. Ukugxila ekulandelaneni kwephethini kusiza ekuthuthukiseni amakhono okucaBanga nge-aljebhra. Amaphethini ezinombolo asiza ekuthuthukiseni ulwazi lwezinombolo, nokwakheka komqondo wezinombolo ukusebenza kanye nobudlelwano bazo. Okusejiyometri kuhlanganisa imigqa, izimo, nezinto, kanye namaphethini akhona ezweni. Kulokhu okusazibalo mdwebo abafundi basebenzisa ulwazi lwabo lwezindawo nesimo.
Indawo nesimo (ijiyometri)	Ukufunda ngendawo nesimo kuthuthukisa ukuqonda nokuncoma amaphethini, ukucacisa, ukuphumelela nobuhle bendalo namasiko. Kugxila kulokhu: • Izakhiwo nobudlelwano bazo ; • Isimo, izikhundla kanye • Nezinguquko zezimo ezinhlangothimbili nezinto ezinhlangothintathu	KuleliBanga abafundi bagxila kwizinto ezinhlangothintathu (3-D), izimo ezinhlangothimbili (2-D), isikhundla nezinkomba. • Abafundi bahlola izinto ezinhlangothintathu nezimo ezinhlangothimbli ngokuhlela, nokuhlukanisa ngamaqoqo, ukuchaza nokuzisho ngamagama. • Abafundi badweba izimo bakhe ngezinto. • Abafundi babona babuye bachaze izimo nezinto ezisezindaweni zabo ezifana nezinto nezimo ezisebenza ezibalweni. • Abafundi bachaza isikhundla sezinto, ezabo, nezabanye besebenzisa amagama afanele. • Abafundi balandela babuye banike izinkomba.
Isilinganiso	Isilinganiso kugxile ekukhetheni nasekusebenziseni amayunithi ngendlela efanele, izinsizakukala kanye namafomula ukunika inani lobunjalo bezehlakalo,izimo, izinto kanye nendawo. Kuhambelana ncamashi nobuciko, nobuchwepheshe, nomnotho wokuqonda komfundi ngokwezinga lakhe. Lokhu kumsiza ukuba: • aqagele ngokuyikho, kanye • nokukwazi ukuqikelela isilinganiso ngokuyikho nokuthola imiphumela eyiyo.	KulamaBanga ulwazi lwabafundi lokulinganisa luthuthukiswa ngokusebenzisa izinto eziphathekayo nezimo, befunda izakhiwo zobude,zomthamo, zesisindo, zobungako bendawo kanye nesikhathi. • Abafundi balinganisa izakhiwo zezimo, nezinto besebenzisa amayunithi angalinganisiwe njengezandla, amagxathu, izitsha njll. • Abafundi baqhathanisa izinto besebenzisa amagama okuqhathanisa njengokuthi kude kuna/kufishane kuna, kuyasinda kuna kulula kuna njll. • Abafundi bethulwa kumayunithi ahleliwe njengama gramu, khilogramu; ilitha, imililitha; imitha, isentimitha. Imisebenzi ephathalene nesikhathi kufanele ihlelwe ngokwazi ukuthi abafundi banalo ulwazi ngokudlula kwesikhathi ngaphambi kokuba bafunde ngesikhathi.

ULWAZI LWEZIBALO		
INGXENYE YOLWAZI	**ULWAZI OLUVULELEKILE**	**ULWAZI OLUKHETHEKILE EMABANGENI APHANSI**
Ukuqokelelwa kolwazi lwezibalo	Ngesifundo sokuqokelelwa kolwazi, umfundi uthuthukisa amakhono oku: • qoqa • hlela • khangisa; • ukuhlaziya nokuhumusha ulwazi alunikiwe.	Okugxilwa kukho uma kufundiswa, kufundwa ngokuqokelelwa kolwazi emaBangeni aphansi kusekuhlelweni kwezinto nolwazi ngezindlela ezahlukene kube kuncike ezimpawini ezahlukene zezinto noma ulwazi. • Kulindeleke ukuthi abafundi bahumushe baphinde bakhe igrafu yezithombe nebar grafu ngokukodwa nokukodwa okuhambisanayo olwazini olunikiwe.

2.6 ISISINDO SEZINGXENYE ZOLWAZI

Isisindo sezingxenye zolwazi lwezibalo kunezinhloso ezimbili: eyokuqala isisindo seluleka ngobungako besikhathi esidingekayo ukufundisa ulwazi engxenyeni ngayinye ngokwanele; eyesibili isisindo seluleka ngokusabalalisa ulwazi ekuhlolweni. Isisindo sezingxenye zolwazi siyehlukahlukana ngokwamaBanga emaBangeni aphansi.

Ithebula 2.2 isisindo sezingxenye zolwazi emaBangeni aphansi

ISISINDO SEZINGXENYE ZOLWAZI			
Ingxenye yokuqukethwe	**IBANGA LOKU-1**	**IBANGA LESI-2**	**IBANGA LESI-3**
Izinombolo, izimpawu kanye nobudlelwano bazo*	65%	60%	58%
Amaphethini, ukuxhumana kanye ne-aljebhra	10%	10%	10%
Indawo nesimo (Ijiyometri)	11%	13%	13%
Isilinganiso	9%	12%	14%
Ukuqokelelwa kolwazi lwezibalo	5%	5%	5%
	100%	**100%**	**100%**

* Ebangeni R-3, kusemqoka ukuthi izinombolo, ukusebenza kanye nobudlelwano bazo iyona esemqoka ohlelweni lwezibalo. Abafundi kufanele bakwazi ukusebenzisa izinombolo ngokukhululekile lapho sebeqede iBanga lesithathu. Inhloso ukuba abafundi bakwazi ukusebenzisa izinombolo ngokukhululeka nangokuzethemba. Ngalesizathu isikhathi sokufundisa izinombolo, ukusebenza kanye nobudlelwano bazo sesengeziwe. Umsebenzi omningi wamaphethini kufanele ubheke kakhulu ekwenzeni amaphethini ezinombolo ukuhlanganisa ulwazi lwabafundi lokusebenza ngezinombolo ngokuqhubekayo.

2.7 IZIBALO EMABANGENI APHANSI

Izibalo emaBangeni aphansi ziqinisekisa ukuxhumana kolwazi lwezibalo ebangeni – R, empilweni ngaphandle kwesikole nasemaBangeni aphakeme emfundo. Abafundi emaBangeni aphansi kumele bakhonjiswe ulwazi lwezibalo oluzobanika amathuba okwenza, ukukhuluma, nokubhala imcabango yabo.

Isikhathi esisetshenziswa ekufundiseni izibalo yisona esiveza umphumela wokuthuthuka olwazini nasemakhonweni ezibalo. Imisebenzi enikwa abafundi kumele kube ezobakhulisa olwazini lwezibalo njengoba kubekiwe kunqubomgomo hayi umsebenzi nje.

2.7.1 Imigomo ephakanyisiwe yokuphatha ikilasi

Sonke isikhathi esibekelwe ukufundisa izibalo ngelanga kufanele sithathwe njengesifundo esisodwa. Ngesikhathi sokufundwa kwezibalo kufanele kwenzeke lokhu okulandelayo:

- **Umsebenzi wekilasi**
  - Izibalo zekhanda
  - ukuhlanganisa ubukeze ulwazi olufundiwe
  - ukuphathwa kwekilasi (ukwabiwa komsebenzi ozimele,njll)
- **Ukufundisa abafundi ngamaqembu**
  - Ukubala
  - Ukuthuthukisa ulwazi lwezinombolo (ngokukhuluma nangokwenza)
  - Ukuxazulula izinkinga zezibalo (ngokukhuluma nangokwenza)
  - Umsebenzi wokubhala
  - Ukuthuthukisa amasu okubala (ngokukhuluma nangokwenza)
  - Amaphethini
  - Isimo neNdawo
  - Isilinganiso
  - ukuqokelelwa kolwazi lwezibalo
- **Umsebenzi abawenza ngokuzimela**

Abafundi bazokwenza bese behlanganisa babukeze ulwazi lwezibalo abalufunde beyikilasi nasemaqenjini.

Umsebenzi wekilasi: lapho kugxilwa khona kakhulu ezibalweni zekhanda, ukuhlanganiswa kolwazi nokwabiwa kwemisebenzi ezimele okungenani imizuzu engama 20 ngosuku ekuqaleni kwesifundo sezibalo.kulesikhathi uthisha uzophinda asebenze nekilasi lonke ukubona abhale (uma sekufanele)igama losuku,usuku, abafundi abakhona nabangekho, nesimo sezulu.izibalo zekhanda zifaka ukubala ngokushesha njengoku “inombolo engemuva/ngaphambili kwesi 8 ingu; 2 ngaphezulu/ngaphansi kwesi 8 ngu; 4+2; 5+2; 6+2” ngalesikhathi uthisha angahlanganisa ulwazi olubukhunyana.Futhi kubalulekile ukuthi uthisha anike ikilasi umsebenzi ojwayelekille wekilasi kanye nalowo msebenzi wokuzimela abazowenza ngokwabo ngesikhathi yena eqhubeka neqembu agxile kulo.

*Izifundo ezigxile emaqenjini:*zisebenza kahle kakhulu uma uthisha ethatha abafundi abayiqembu elincane (aBangaba 8 kuya e 12) abasezingeni elifanayo lokusebenza basebenze naye eceleni ngesikhathi amanye amaqembu esebenza ngokuzimela umsebenzi osufundiwe. Kuleliqembu elinothisha benza umsebenzi **wokukhuluma nokwenza** emisebenzini efana nokubala, ukuqagela, ukuthuthukisa ulwazi lwezinombolo nokuxazulula izinkinga, kanye nemisebenzi ethinta amaphethini, isimo nendawo, isilinganiso kanye nokuqokelelwa kolwazi lwezibalo, okufanele kube kulungiselelwe ngokucophelela.

Ukuze ugcizelele ukufunda, umsebenzi wokubhala (incwadi yokusebenza, iphepha lokusebenzela, amakhadi okusebenza njll) kufanele ube yingxenye yomsebenzi weqembu uma kungenzeka. Abafundi kumele babe ne-zinto zokubhala (izincwadi zokusebenza ekilasini, njll)zokwenza imisebenzi yokuxazulula izinkinga.Ngesikha-

thi sokusebenza ngamaqembu kumele abafundi basebenzisane bagqugquzelwe ukuba “benze, bakhulume, batshengise bese bebhala ulwazi nemicaBanga yabo yezibalo”.

Othisha kufanele Bangababukeli phansi abafundi abathatha kancane;kufanele nabo banikwe imisebenzi ezobathuthukisa olwazini lwabo.Kulula ukuqondanisa izinga lomsebenzi othe thuthu nabafundi uma iqembu uthisha asebenza nalo lisezingeni elifanayo lokusebenza.Kodwa-ke,iqembu elixube amazinga ahlukene okusaebenza lingasebenza kahle uma lenza imisebenzi efana nokwakha, isilinganiso ukwakha amaphethini noma imisebenzi yokuhlela, noma imidlalo.

Imisebenzi yomfundi ngamunye: Ngesikhathi uthisha esebenza neqembu agxile kulo,abanye abafundi bazokwenza imisebenzi eminingi eyahlukene yezibalo egcizelela ihlanganise ulwazi namakhono asefundiwe ngesikhathi sokufunda emaqenjini nothisha.Lemisebenzi yokuzimela kufanele ihlelwe ngokwehlukana kwamazinga abafundi abakuwo.Imisebenzi yokuzimela ingafaka:

- Incwadi yokusebenzela;
- Amaphepha/amakhadi okusebenzela asemazingeni ahlukene uma bebala, besebenza ngezinombolo, bexazulula izinkinga zezibalo ezilula ezisesimweni esejwayelekile(izinkinga zezibalo zamagama), njll;
- Imidlalo yezibalo njenge Ludo,amadomino, amaphazili;kanye
- Imisebenzi efaka ukwakha, ukuhlela, ukwakha amaphethini noma isilinganiso.

Isikhathi sezibalo kufanele silekelele abafundi abanezinkinga ekufundeni kwabo,imisebenzi yokwandisa ulwazi kulabo abafunda ngokushesha, imisebenzi yokuhlola,njll.

Imisebenzi yezifundo yokuzimela neyamaqembu kufanele ibhekwe (ngokwenziwayo, nokuxoxwayo),imakwe bese ibhekwa uthisha njengemsebenzi yokuhlola ehleliwe nengahleliwe.

Ukubhekisisa izimpendulo zabafundi (ngokukhuluma, ngokuxoxa, ngokwenza, ngokubhala) ezimweni zokufunda nokufundisa kusiza uthisha ukuba enze ukuhlola okuqhubekayo,ukubheka inqubekela phambili yabafundi nokuhlela nokulekelela okufanele abafundi abanezinkinga ekufundeni kwabo.

2.7.2 Abafundi abanezingqinamba ekufundeni izibalo

Kusemqoka ukuthi abafundi abanezingqinamba banikwe umsebenzi yokwenza befunda.Izibonelo zokwenza usebenzisa izinto eziphathekayo nemisebenzi yokwenza kufanele yenziwe isikhathi esithe xaxa kunabanye abafundi, uma siqhubekela emsebenzini ofuna ukucatshangwa ungaholela ekudidekeni nasekudikibaleni. La bafundi Bangadinga ukunikezwa isikhathi esingaphezulu soku;

- qedela imisebenzi yokuhlola;
- ukuthola amakhono okucaBanga (amaqhinga akhe)

Inani lemisebenzi okufanele iqedwe kufanele ihambisane nezinga lokufunda lomfundi ngaphandle kokwehlisa izinga lolwazi namakhono.

2.7.3 Izibalo zekhanda

Izibalo zekhanda zinendima enkulu kwinqubomgomo yezibalo. Amabhondi ezinombolo namathebula okuphindaphinda okufanele abafundi bawazi noma bawakhumbule ngokushesha abhalwe ohlwini lweBanga neBanga. Ngaphezulu

kwalokho , izibalo zekhala zisetshenziswa kakhulu ukuthola uhla lwezinimbolo oluphezulu ngokusebenzisa ukubalweqe izinombolo nokwenza imisebenzi efana “nokwehla wenyuka isitbhisi sezinombolo”,isib. Uthisha weBanga le 3 angabuza imibuzo exhumene “Qala ngo 796. Yenza kube kuningi ngokuyi 7.Yebo, kuwu 803. Yenza lokho kuke ngaphansi ngoku 5. Yebo, kuwu 798. Yenza lokho kube ngaphezulu ngoku 10…ngaphezulu ngoku 2….ngokungaphezulu noku 90… ngokungaphansi ngiku 5…” njll. Lemisebenzi isiza abafundi ukwakha umugqa wezinombolo sakuhuba.

Ngakhoke izibalo zekhanda zingena kakhulu kukona kokubili ukubala nokuthuthuka kolwazi lwezinombolo ngokuxhumana ngezinombolo namaphethini, kungenzeka futhi ngokulinganisa nemisebenzi yokuqokelelwa kolwazi. Uma wenza izibalo zekhanda , uthisha akufanale aphoqe abafundi ukwenza izibalo zekhanda abangeke bakwazi ukuzikhona –izinto zokubhala noma zokubala kufanele zihlale zikhona lezo abafundi aBangazidinga.

2.8 IBANGA R

Indlela yokufunda izibalo eBangeni – R kufanele incike emigomeni yokuhlanganisa konke abakwenzayo nasekufundeni sakudlala. Uthisha kufanele akhuthale, njengomxhumanisi kunokuba umfundisi. Umxhumanisi wenza amathuba amaningi okufunda benganakile okwenzeka ngesikhathi benza imisebenzi eminingi yobuntwana njengokudlala ngokukhululeka ekhoneni labo lamaphupho noma esizindeni sokwakha amabhuloki,iimidlalo yesihlabathi namanzi elawulwa uthisha egxile olwazini lwezibalo njengokubala, ukuthuthukiswa kolwazi lwezinombolo, indawo nesimo, amaphethini, isikhathi nezinye imisebenzi ezingenelayo yezibalo. Umbala awusilo ulwazi lwezibalo ngokuzimele, kodwa lungasetshenziswa ekuthuthukisweni kokukhuliswa kolwazi lwezibalo emsebenzise efana nokuhlele, ukwenza amaqoqo nokuhlela ngendlela ethile.

Konke okufundwa eBangeni – R okufaka impilo yasekilasini nokufunda nokufundiswa, kufanele kubasize, kubakhulise kwizingxenye zonke zempilo. Ukuthuthukiswa kuyingxenye kokwenzeka ezibalweni okufaka nokuthuthuka ngokwengqondo (ukuxazulula izinkinga, ukucaBanga ngendlela ehlelekile), ukuthuthukiswa kolimi (ulimi lwezibalo) imicabango nemizwa kanye nokuthuthuka ngokwenhlalo. Konke lokhu kungathuthukiswa, ngezindaba, amaculo, imilolozelo, imidlalo Yeminwe neyamanzi, izinto zokudlala ezifundisayo okufaka kuzo imidlalo yamabhodi, yokwakha nokubona (isisindo, isikhathi, umthamo, isilinganiso, njll), imidlalo yemicabango, imidlalo yangaphandle” nemidlalo yasenkundleni”. Izinhlobo eziningi zemidlalo zingafaka izingxenye zezibalo, isibonelo: ukukala ngesikhathi sokukhathi sokupheka noma ukubala ngesikhathi sokuthenga.

Ngamanye amagama ukufundwa kwezibalo zokuqala nolwazi oluhambisana nazo njengokufundisa okufanele, kuhambisana nemigomo elanselayo lapho khona abantwana bedlula kuwona womathathu amazinga okufunda, lawa:

- Ukusetshenziswa komzimba (ukufunda ulwazi ngomzimba nemizwa);
- ukusetshenziswa kwezinsiza kufunda eziphathekayo (3-D, ukusetshenziswa kwezinhlobo ezahlukene zezinto njengamabhuloki, izivalo zamabhodlela, izinti zokubala nezinye izinto ezibazungezile); kanye
- Ukusetshensizwa komfanekiso osephepheni (imidwebo njengezithombe, amakhadi okuqondanisa njll)

Onyakeni weBanga R uhlelo lwesikhathi lubizwa ngokuthi **uhlelo losuku** (bheka umbhalo 1)lwakhiwe izinhlaka ezintathu ezibizwa:

- Imisebenzi eholwa uthisha;
- Imisebenzi yansukuzonke;kanye
- Imisebenzi esungulwa abafundi noma imidlalo ekhululekile.

Ukugcizelela kukona konke kufanele kube sekusebenziseni lezi zingxenye zohlelo losuku ukuthuthukisa ukufunda izibalo zokuqala ngokuthokozisayo nokwenzeka kungalindelekile esimweni esejwayelekile. Isibonelo: ukufundwa

kwezibalo ezilawulwa uthisha ngesikhathi seringi. Amaringi amaningi anganikwa isikhathi sokugxila ezibalweni. Iringi yasekuseni ngesikhathi sokubingelela nokubizwa kwamagama kunikeza amathuba okudlala ngezinombolo, njengokubala.Amanye amaringi, njengeringi yezibalo , amaringi emicabango, eminyakazo, umculo nobuchwepheshe zingagxila ekunikezeni izibalo.

Imisebenzi yokuzenzela ingagcizelela izibalo, kusetshenziswa izimo ezisazibalo mdwebo ezifana njengezindilinga, nezikwele ukwenza ikholaji noma ukwakha iphethini yokufaka isithombe. Ishadi lesimo sezulu, ikhalenda neringi yezinsuku zokuzalwa nacho kunika amathuba okuvaza ulwazi lwezibalo.Ulwazi lukathisha nokuzinikela olungenyusa izinga lokufunda.

- *Okwenziwa njalo,* Lapho abafundi befunda ngokwenza, njengesikhathi sokudla, ukufika, ukugoduka/ukuya ekhaya, nokuya endlini encane, kunganikwa ukugxilwa ezibalweni. Abantwana abagqoke okubomvu, isibonelo, baya endlini encane kuqala (umbala nenombolo esho isikhundla), umntwana ngamunye uthola ipuleti nesinkwa (okukodwa nokukodwa okuqondanayo), UThandi angathanda isinkwa sesibili, uSipho akasithandi esesibili. Lokhu kulekelela ekuboneni nasekufundiseni , Ngamanye amazwi kuba umxhumanisi wokufunda.
- Ngesikhathi *sokudlala ngokukhululekile* uthisha angathuthukisa **ulwazi lwezibalo zokuqala** ngokuhlela kahle indawo yokudlala ngokukhululekile.Ukudlala okukhululekile okuphandle okunjengokugibela isitebhisi esenziwe ngezingodo kungathuthukisa ulwazi lolimi lwezibalo olufana nophezulu/phansi, ngenhla/ ngenzansi, ukushesha / nokuhamba kancane, njll. Umdlalo wamanzi nesihlabathi kungathuthukisa ukuqonda ulwazi njenge isisindo, umthamo nokumumethwe. Yonke lemisebenzi izothuthukisa amakhono okusebenza kwengqondo, okuholela ekutholeni ukufunda okuhlelekile kolimi nezibalo. Izibonelo zalamakhono:
    - ukuthuthukiswa kolwazi lokuqonda isikhundla sakhe nendawo isib. Ngemuva, ngaphambili, ngaphansi noma eceleleni kwento (lokhu kunga xhumana nesikhundla senombolo ezibalweni); kanye
    - ukuqonda izinkomba kanye nezinhlangothi (lokhu kungaxhumana nezinombolo nokwakheka kwezinhlamvu, kanye nokufunda kusukela kwesokudla kuya kwesobunxele)

Ukwenza okuchazwe ngenhla kuchaza indlela yokusebenza kweBanga -R ekuxazululeni izinkinga ekucaBangani okuhlelekile, kanye nemfundo yobuzwe egxile ekubambisaneni nasekuxoxisaneni. Ngokusebenzisa izikhathi zokufundisa uthisha angagqugquzela abantwana ukubheka izinqumo abazenzayo nokuqagela okungase kwenzeke, isib. Uma bebuka isitsha samanzi okudlala asetshenziswe emdlalweni wamanzi singamumatha amanzi amningi ukunanoma isiphi esinye isitsha.

Ngokwenza izincomo ezilekelelayo nokumenza umntwana ukuba acabange ngezinye izindlela zokuxazulula izinkinga, uthisha angagqugquzela abantwana ukuba bacabange kabanzi ngalento nokuthola izizathu ezifanele zezinqumo ezifanele. Ngalendlela akuzona kuphela izibalo ezithuthukayo kodwa ukuthuthuka komntwana ngokuphelele nezizinda ezisekele amaCAPS ziyasebenza.

Ukuhlolwa eBangeni – R kumele kungabi okuhlelekile nabafundi Bangakuzweli ukuhlolwa. Ngakho – ke akukho ukuhlola eBangeni – R. Umsebenzi ngamunye kufanele ulungiselelwe kahle ukuze kuthuthukiswe amakhono.

Ukuhlola eBangeni – R kwenzeka ngenkathi uthisha ebabuka benza bese ebhala phansi akubonile ngokwenza komfundi, kumele akwenze ngokusebenzisa uhlu lwezinto azibhekayo. Ngokuqhubeka konyaka uthisha uzokwakha isithombe esiphelele somntwana, esiveza lokho akwazi ukukwenza nangakwazi ukukwenza. Lokhu kunika ithuba lokuthi lokhu angakwazi ukukwenza kubhekisiswe nalokho akwazi ukukwenza kuthuthukiswe.

Ikilasi leBanga – R elihlelwe ngendlela yokubheka phambili, elilandela imigomo yokufunda ngendlela engaguquki “nenemigomo emile” kufanele ligwenywe, njengoba ingavumeli ukutholakala kolwazi lwezibalo emntwaneni weBanga –R. IBanga –R akufanele libe ikilasi elibukeka njengeleBanga-1. Linezinto zalo ezehlukile ezincike

ekutheni abantwana baleliBanga bazibona kanjani izinto emhlabeni wobuntwana bebebethola nolwazi, amakhono, nezimfundiso ezizobavumela ukwenyusa amathuba atholakala eminyakeni yokufunda okuhlelekile.

UMBHALO 1: UHLELO LWANSUKU ZONKE IBANGA R

(UKUSUKA ± 7:30 – 13:00)

UKUFIKA NEMIDLALO EKHULULEKILE

Imizuzu: 36

Ukubingelela Izindaba
Ishadi lesimo sezulu Iregista

UMSEBENZI OHOLWA UTHISHA
Izibalo; Ulimi; Amakhono Empilo

Izibalo

Ulimi, Amakhono empilo

Imizuzu: 50

- UMSEBENZI WAMAKHONO (nsukuzonke: OKUMQOKA oku-1 kanye 2/3 imisebenzana yokulekelela
- UKUDLALA OKUKHULULEKILE
- UKUHLANZWA KWANGAPHAKATHI

- Imidlalo yokuzenzisa
- Ukulingisa
- Ukudlala ngokwakha
- Amabhuloki
- ukufunda
- Amathoyisi
- Imidlalo ecabangisayo
- Iphazeli
- Ikhona lezincwadi
- Isikhathi sokuthula
- Indawo enokuthula

Imizuzu: 30

ISIKHATHI SOKUZIKHULULA ULimi, Izibalo, Amakhono Empilo

Imizuzu: 10

UMSEBENZI OHOLWA UTHISHA Izibalo; Ulimi; Amakhono Empilo

Imizuzu: 20

ISIKHATHI SOKUDLA Ulimi, Izibalo, Amakhono Empilo

Imizuzu: 60

Imidlalu ekhululekile ngaphandle nokuqoqa

- Umdlalo wamanzi
- Umdlalo wesihlabathi
- Ukulingisa
- Umdanso
- Imijikelo/ozwingi
- Amathoyizi anamasondo
- Amathoyizi okufundisa
- Amathayi
- Ukunyakaziswa komzimba
- Imidlalo

Imizuzu: 10

Isikhathi sokuzikhulula
Izibalo, Ulimi, Amakhono Empilo

Imizuzu: 30

UMSEBENZI OHOLWA UTHISH
Izibalo, Ulimi, Amakhono Empilo

Imizuzu: 30

INDABA nsuku zonke

Isikhathi sokuphumula/esokuthula kanye nosokuhamba

IZIBALO

- Imisebenzi ehlelwe nge-(CAPS) yezibalo
- Imisebenzi yomculo namaculo
- Imisebenzi emayelana nokucaBanga
- Imilolozelo enokubala
- Ingxoxo ngezihlokwana
- Ubuciko bokuhlola
- Ukudlala ngokukhululeka
- Inqubo

ULIMI

- Imisebenzi ngokwe nqutahlelo (ulimi lwasekhaya)
- Izindaba
- Ukulingisa
- Izincwadi / izithombe
- Ukufunda ngezithombe
- Ukuxoxa ngezithombe
- Imisebenzi emayelana nokucaBanga
- Iphosta yabazali
- Incwadi yabazali
- Izindaba
- Imilolozelo nezinkondlo
- Okuqoshiwe
- Ukuxoxa ngezihlokwana
- Imidlalo yokunyakazisa imizimba
- Inqubo
- Imidlao ekhululekile
- Ukudlala ngokukhululeka

AMAKHONO EMPILO

- Imisebenzi ehlelwe ngokwe-caps (amakhono empilo)
- Imidlalo yokunyakazisa umzimba
- Ukucula namaculo
- Imilolozelo nezinkondlo
- Ingxoxo ngezihlokwana
- Izinsuku zokuzalwa
- Inqubo
- Ukudlala ngokukhululeka

2.9 IZINSIZAKUFUNDISA EZINCONYIWE KUMABANGA APHANSI EKILASINI LEZIBALO

- Izinto zokubala
- Idayisi elikhulu
- Ibhodi lezinombolo elikhulu
- Ishadi lobude
- Igridi enkulu tezinombolo esukela 1-100 nesuka ku 101-200 (amashadi-100)
- Imigqa yezinombolo ehlukene (ovundlile nosuka phezulu uya phansi)
- Amafuladi khadi
- Imali yokudlala-ewuhlweza nengamaphepha
- Ikhalenda yalowo nyaka
- Iwashi elikhulu lezinti lasodongeni
- Isilinganiso sokuzimelela
- Amabhuloki okwakha
- Ubumba lokudlala
- Izinhlobo ezahlukene zamabhokisi ezinezimo nobungako obungafani ezitholakala emakhaya
- Amabhodlela ayiplastiki anhlobonhlobo nezitsha zokuchaza nokuqhathanisa okumemethwe
- Izibonelo ezinhle zokuyindilinga (Ibhola), iprizimu ewunxande (ibhokisi), ikhiyubhu, ikhoni, iphiramadi nesilinda.uthisha angazenzela lezinto ngokwakhe.
- Izikwele ezingamaplasitiki noma ezingamakhadibhodi, onxande abahlukene, izindilinga, onxantathu abahlukene abawubungakho obuhlukene
- Imidlalo yezibalo, isib uLudo, Izinyoka nezitebhisi, amaphazili, amadomino, aTangrams njll.
- Okudingeka ebangeni R no 1
  - Izindawo zemidlalo yamanzi nesihlabathi
  - Izinto zokugibela, ezokuzimelela, ezokujikela nezokweqa
  - Isitolo sokudlala esinezinto zokuthengwa ngemali yokudlala
  - Izinhlobo zemidlalo ehlukene njengokuthi ‘yini esesikweleni?
  - Amabhuloki

ISIGABA SESI – 3: UKUCACISA OKUQUKETHWE NOKUQONDWE NGQO

3.1 ISINGENISO

Emfundweni yamazinga aphansi kunezingxenye ezinhlanu zolwazi lwezibalo:

- Izinombolo, izimpawu kanye nobudlelwano bazo
- Amaphethini, ukuxhumana kanye ne-Aljebhra
- Indawo nesimo (Ijiyometri)
- Isilinganiso
- Ukuqokelelwa kolwazi lwezibalo

Ezibalweni ingxenye ngayinye yolwazi yehlukaniswe ngezihlok , njenge ndawo nesimo emaBangeni aphansi esinye isihloko singe zimo ezinhlangothi mbili.Isihloko ngasinye siluveza kahle ulwazi namakhono. Ingxenye yesi-3 kumaBanga aphansi kumaCAPS ezibalo iveza iphinde icacise ngolwazi oludingekayo.

3.2 OKUQUKETHWE OKUQONDWE NGQO OKUKHOMBISA INQUBEKELA PHAMBILI

Ithebula lolwazi oluqukethwe emaBangeni aphansi lukhombisa ngqo inqubekela phambili yolwazi namakhono kusuka eBangeni R kuya eBangeni 3. Ithebula leBanga likhombisa inqubekela phambili yolwazi namakhono kuwona omane amathemu onyaka.

Kwezinye izihloko ulwazi namakhono kuyafana kwamanye amaBanga amabili noma amathathu alandelanayo. Incazelo yolwazi inika inqubomgomo emayelana nokuthi inqubekela phambili izohamba kanjani kulamaBanga. Incazelo enemininingwane yolwazi kufanele ifundwe ngokuhlanganyela nencazelo yolwazi.

Ulwazi jikelele emaBangeni aphansi lukhombisa ingqubekela phambili yengxenye yolwazi; izinombolo, ukusebenza kanye nobudlelwano bazo, amaphethini, imisebenzi kanye ne-aljibhra, indawo nesimo, isilinganiso, ukuqokelelwa kolwazi lwezibalo kumaBanga aphansi kusetshenziswa lelithebula elilandelayo:

ULWAZI JIKELELE EMABANGENI APHANSI

1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANO BAZO

INQUBEKELAPHAMBILI KWIZINOMBOLO, UKUSEBENZA KANYE NOBUDLELWANO

- Inqubekela phambili ebalulekile kwizinombolo, ukusebenza kanye nobudlelwano yenzeka ngezindlela ezintathu:
  - Uhlelo lwezinombolo luyakhula
  - Ukwethulwa kwezinhlobo ezahlukahlukene zezinombolo
  - Ukushintsha kwamasu okubala
- Ngesikhathi uhlelo lokuthuthukisa izinombolo lukhula kuze kufinyelele ebangeni le – 3, kulindeleke ukuthi abafundi bathuthuke kangcono kumasu okubala.
- Izinkinga ezisesimweni esejwayelekile kumele zithathe uhla lwezinombolo zeBanga kanye nokubala kwabafundi okusezingeni elifanele.

ULWAZI	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: Ukubala kusetshenziswa izinombolo eziphelele				
1.1 **Bala izinto**	**Bala izinto eziphathekayo** Qagela bese ubala izinto okungenani eziyi – 10 ngokuyikho nsukuzonke.	**Bala izinto eziphathekayo** Qagela bese ubala izinto okungenani ezingama – 50 ngokuyikho nsukuzonke. Gqugquzela ukubala ngamaqoqo.	**Bala izinto eziphathekayo** Qagela bese ubala izinto okungenani ezingama – 200 ngokuyikho nsukuzonke. Gqugquzela ukubala ngamaqoqo.	**Bala izinto eziphathekayo** Qagela bese ubala izinto okungenani ezingama – 1000 ngokuyikho nsukuzonke. Gqugquzela ukubala ngamaqoqo.
1.2 **Bala uye phambili nasemuva**	Bala ukusuka phambili uye emuva ngakunye kusukela koku 1 – 10; Sebenzisa imilolozelo efaka izinombolo kanye namaculo	Bala uya phambili ubuye uye emumva ngakunye kusukela kunoma iyiphi inombolo phakathi kuka 0 – 100; **Bala uye phambili:** • Bala ngama -10 phakathi kuka - 0 kuya e – 100 • Bala ngokuyisi – 5 phakathi kuka -0 kuya e – 100 • Bala ngoku -2 phakathi kuka -0 kuya e – 100	Bala uye phambili ubuye uye emumva: • Ngakunye kusukela kunoma iyiphi inombolo phakathi kuka 0-kuya e 200 • Bala ngama – 10 kusukela kunoma iyiphi inombolo phakathi kuka -0 kuya e – 200 • Bala ngokuyisi – 5 kusukela kunoma iyiphi inombolo phakathi kuka – 0 kuya e – 200 • Bala ngaku – 2 kusukela kunoma iyiphi inombolo phakathi kuka 0-kuya e 200 • Bala ngaku – 3 kusukela kunoma iyiphi inombolo phakathi kuka – 0 kuya e – 200 • Bala ngaku – 4 kusukela kunoma iyiphi inombolo phakathi kuka – 0 kuya e – 200	Bala uye phambili ubuye uye emumva: • Ngakunye kusukela kunoma iyiphi inombolo phakathi kuka 0-kuya e 1000 • Bala ngama – 10 kusukela kunoma iyiphi inombolo phakathi kuka -0 kuya e – 1000 • Bala ngokuyisi – 5 kusukela kunoma iyiphi inombolo phakathi kuka – 0 kuya e – 1000 • Bala ngaku – 2 kusukela kunoma iyiphi inombolo phakathi kuka 0-kuya e-1000 • Bala ngaku – 3 kusukela kunoma iyiphi inombolo phakathi kuka – 0 kuya e – 1000 • Bala ngaku – 4 kusukela kunoma iyiphi inombolo phakathi kuka – 0 kuya e – 1000 • Ngama – 20, 25, 50, 100 kuze kufike okungenani e – 1000

ULWAZI	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: Okumele izinombolo eziphelele				
1.3 **Izimpawu namagama ezinombolo**	**Buka, ukhombe ubuye ufunde izinombolo** • Buka, ukhombe ubuye ufunde uphawu lwezinombolo kusukela koku – 1 kuya e – 10. • Buka, ukhombe ubuye ufunde amagama ezinombolo kusukela koku – 1 kuya e – 10	**Buka, ukhombe ubuye ufunde izimpawu zezinombolo** • Buka, ukhombe ubuye ufunde uphawu lwezinombolo kusukela koku – 1 kuya e – 100. • Bhala izimpawu zezinombolo kusuka ko -1 kuya ema - 20 • Buka, ukhombe ubuye ufunde amagama ezinombolo kusukela koku – 1 kuya e – 10. • Bhala amagama ezinombolo kusukela koku – 1 kuya e - 10	**Buka, ukhombe ubuye ufunde izinombol** • Buka, ukhombe ubuye ufunde uphawu lwezinombolo kusukela ku – 0 kuya e – 200. • Bhala izimpawu zezinombolo kusuka ko -1 kuya ema - 200 • Buka, ukhombe ubuye ufunde amagama ezinombolo kusukela ku – 0 kuya e – 100. • Bhala amagama ezinombolo kusukela ku – 0 kuya e - 100	**Buka, ukhombe ubuye ufunde izinombolo** • Buka, ukhombe ubuye ufunde uphawu lwezinombolo kusukela ku – 0 kuya e – 1 000. • Bhala izimpawu zezinombolo kusuka ko -1 kuya ema – 1 000 • Buka, ukhombe ubuye ufunde amagama ezinombolo kusukela ku – 0 kuya e – 1 000. • Bhala amagama ezinombolo kusukela ku – 0 kuya e – 1 000
• UKUTHUTHUKISWA KOLWAZI L WEZINOMBOLO: Chaza, qhathanisa uphinde uhlele izinombolo eziphelele				
1.4 **Chaza, qhathanisa ubuye uhlele izinombolo**	**Chaza, qhathanisa bese uhlela iqoqo lezinto kuyofika e-10.** • Chaza izinombolo eziphelele kuya e-10. • Qhathanisa lezizinto ezimbili ozinikiwe ngobukhulu, ngobuncane, okuncane kunokunye, okukhulu kunokunye, okungaphezulu kunokunye, okungaphansi kunokunye, okulinganayo, okuningi kakhulu, okuncane kakhulu, okumbalwa kuze kufike e-10. • Hlela izinto eziqoqiwe ezingaphezu kokubili kusuka kokuncane kakhulu kuya kokukhulu kakhulu kuze kufike e-10.	**Chaza, qhathanisa bese uhlela izinto kuyofika e-20.** • Chaza uqhathanise iqoqo lezinto ngokuningi, okuncane, okulinganayo • Chaza uhlele iqoqo lezinto kusukela kokuningi kuya kokuncane, nokuncane kuya kokuningi		

ULWAZI	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
1.4 **Chaza, qhathanisa ubuye uhlele izinombolo**		**Chaza, qhathanisa bese uhlela izinombolo kuyofika e-20.** • Chaza bese uqhathanisa izinombolo eziphelele ngokubancane ukunenye,enkulu ukunenye kanye neningi ukunenye, nengaphansi ukunenye, nelinganayo • Chaza bese uhlela izinombolo kusukela kwencane kakhulu kuyofika kwenkulu kakhulu nakwenkulu kakhulu kuyofika kwencane kakhulu	**Chaza, uqhathanise ubuye uhlele izinombolo kuya ema – 99** • Chaza bese uqhathanisa izinombolo eziphelele kuze ufike ema – 99 usebenzisa okuncane kunokunye, okukhulu kunokunye, okungaphezulu kunokunye, okungaphansi kunokunye kanye nokulinganayo • Chaza bese uhlela izinombolo eziphelele kuyofika ema-99 kusukela kwencane kakhulu kuyofika kwenkulu kakhulu nakwenkulu kakhulu kuyofika kwencane kakhulu	**Chaza, uqhathanise ubuye uhlele izinombolo kuya ema – 999** • Chaza bese uqhathanisa izinombolo eziphelele kuze ufike ema – 999 usebenzisa okuncane kunokunye, okukhulu kunokunye, okungaphezulu kunokunye, okungaphansi kunokunye kanye nokulinganayo • Chaza bese uhlela izinombolo eziphelele kuze kufike ema - 999 kusukela kwezincane kakhulu kuya kwezinkulu kakhulu, ezinkulu kakhulu kuya kwezincane kakhulu.
	Sebenzisa izinombolo ezisho isikhundla ukukhombisa ukuhleleka, indawo noma isikhundla. • Thuthukusa ukuqaphela izinombolo ezisho isikhumdla isib. Okokuqala, okwesibili, okwesithathu kuyofika kwesithupha nokokugcina	**Sebenzisa izinombolo ezisho isikhundla ukukhombisa ukuhleleka, indawo noma isikhundla.** • Beka izinto emugqeni ngokulandelana kusukela kweyokuqala kuya kweyeshumi noma eyokuqala kuya kweyokugcina. Isib. Okokuqala, okwesibili, okwesithathu ... okweshumi	**Sebenzisa izinombolo ezisho isikhundla ukukhombisa ukuhleleka, indawo noma isikhundla.** • Beka izinto emugqeni ngokulandelana kusukela kweyokuqala kuya kweyamashumi amabili noma eyokuqala kuya kweyokugcina. Isib. Okokuqala, okwesibili, okwesithathu ... okwamashumi amabili	**Sebenzisa izinombolo ezisho isikhundla ukukhombisa ukuhleleka, indawo noma isikhundla.** • Sebenzisa, ufunde uphinde ubhale izinombolo ezimele isikhundla
UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: Ubungako benani lenombolo				
1.5 **Ubungako benani lenombolo**		**Qala ukubona ubungako benani benombolo okungenani izinombolo ezingambili kufinyelela ema – 20** • Hlakaza izinombolo ezihamba ezingambili kubalwa ngamashumi nangokukodwa /imivo.	**Qala ukubona ubungako benani benombolo okungenani izinombolo ezingambili kufinyelela ema – 99** • Hlakaza izinombolo ezihamba ngambili kufinyelela ema – 99 kubalwa ngamashumi nangokukodwa /imivo. • Ukukhomba ubuye usho ubungako benombolo ngayinye.	**Qala ukubona ubungako benani benombolo okungenani izinombolo ezingantathu kufinyelela ema – 999** • Hlakaza izinombolo ezihamba ngantathu kufinyelela kuma – 999 bebala ngamakhulu, ngamashumi nangokukodwa/imivo. • Ukukhomba ubuye usho ubungako benombolo ngayinye

ULWAZI	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
XAZULULA IZINKINGA EZISESIMWENI ESEJWAYELEKILE				
1.6 **Amasu okuxazulula izinkinga**	Sebenzisa lamasu kuze kufike e - 10: • Izinsiza kufundisa eziphathekayo, Isib. Izinto zokubala • Isitebhisi sezinombolo esiphathekayo	Sebenzisa lamasu alandelayo ukuxazulula izinkinga nokuchaza izixazululo zezinkinga: • Izinsiza kufundisa eziphathekayo, isib. (izinto zokubala)Amatshe, ummbila, ubhontshisi njll. • Izithombe ukuze kudwetshwe izibalo zengxoxo • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Umugqa wezinombolo ohambisana nezinto eziphathekayo	Sebenzisa lamasu alandelayo ukuxazulula izinkinga nokuchaza izixazululo zezinkinga: • Imidwebo noma izinsiza kufundisa eziphathekayo, isib. (izinto zokubala) amatshe, ummbila, ubhontshisi • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Umugqa wezinombolo	Sebenzisa lamasu alandelayo ukuxazulula izinkinga nokuchaza izixazululo zezinkinga: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Umugqa wezinombolo • Sondezela emashumini
1.7 **Ukuhlanganisa nokususa**	Xazulula izibalo zamagama (izibalo zengxoxo) ngokwesimo esejwayelekile ubuye uchaze isixazululo sakho esifaka ukuhlanganisa nokususa esinezimpendulo ezifinyelela e – 10.	Xazulula izibalo zamagama ngokwesimo esejwayelekile ubuye uchaze isixazululo sakho esifaka ukuhlanganisa nokususa esinezimpendulo ezifinyelela ema – 20.	Xazulula izibalo zamagama ngokwesimo esejwayelekile ubuye uchaze isixazululo sakho esifaka ukuhlanganisa nokususa esinezimpendulo ezifinyelela ema – 99	Xazulula izibalo zamagama ngokwesimo esejwayelekile ubuye uchaze isixazululo sakho ezinkingeni ezifaka ukuhlanganisa nokususa eziholela ezimpendulweni kufinyelela ema – 999
1.8 **Ukuhlanganisa okuphindaphin-dayo okuholela ekuphindaphinde-ni**		Xazulula izibalo zamagama ngokwesimo esejwayelekile ubuye uchaze isixazululo sakho esifaka ukuhlanganisa okuphindaphindayo okunemiphumela efinyelela ema – 20.	Xazulula izibalo zamagama ngokwesimo esejwayelekile ubuye uchaze isixazululo sakho esifaka ukuhlanganisa okuphindaphindayo okunemiphumela efinyelela ema – 50	Xazulula izibalo zamagama ngokwesimo esejwayelekile ubuye uchaze isixazululo sakho esifaka ukuhlanganisa okuphindaphindayo okunemiphumela efinyelela e – 100

ULWAZI	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
1.9 **Ukuhlela nga-maqoqo nokuh-lukaniselana okuholela ekwahl-ukaniseni**	Chaza uxazulule izisombululo ezimayelana nezibalo zamagama ngokwesimo esejwayelikle (izibalo zengxoxo) okufaka ukwahlukaniseana ngokulinganayo, ukuhlele ngamaqoqo izinombolo eziphelele kuze kufike e 10 kanye nezimpendulo ezingafaka izinsalela.	Xazulula uchaze izixazululo zezinkinga eziphathekayo kufaka ukwahlukaniselana ngokulinganayo, uhlele ngamaqoqo ezinombolo eziphelele kuze kufike ema – 20 kanye nezimpendulo ezingafaka izinsalela.	Xazulula uchaze izixazululo zezinkinga eziphathekayo kufaka ukwahlukaniselana ngokulinganayo, uhlele ngamaqoqo kufinyelela ema – 50 kanye nezimpendulo ezingafaka izinsalela.	Xazulula uchaze izixazululo zezinkinga eziphathekayo kufaka ukwahlukaniselana ngokulinganayo, uhlele ngamaqoqo kufinyelela e – 100 kanye nezimpendulo ezingafaka izinsalela.
UKUXAZULULA IZINKINGA EZISESIMWENI ESEJWAYELEKILE				
1.10 **Ukuhlukaniselana okuholela kumaqhezu**			Xazulula uchaze izixazulo ngezinkinga eziphathekayo ezifaka ukwabelana ngokulinganayo okuholela kwizixazululo ezifaka ingxenye eyodwa kokuphelele.	Xazulula uchaze izixazulo ngezinkinga eziphathekayo ezifaka ukwabelana ngokulinganayo okuholela kwizixazululi ezifaka ingxenye eyodwa kokuphelele kanye nezingxenye ezingaphezu kweyodwa kokuphelele.
1.11 **Imali**	Thuthukisa ulwazi lwemali esetshenziswa eNingizimu Afrika ewuhlweza nengamaphepha.	• Ukukwazi ukubona nokukhomba imali yaseNingizimu Afrika ewuhlweza (5c, 10c, 50c,R1, R2, R5), nengamaphepha (R10, R20) • Ukuxazululwa kwezinkinga zemali ezifaka isamba noshintshi kulemali – 20c, R20	• Ukuwazi ukubona nokukhomba imali yaseNingizimu Afrika ewuhlweza (5c, 10c, 50c,R1, R2, R5), nengamaphepha (R10, R20,R50) • Ukuxazululwa kwezinkinga zemali ezifaka isamba noshintshi kulemali – 90c, R99	• Ukuwazi ukubona nokukhomba yonke imali ewuhlweza nengamaphepha esetshenziswa eNingizimu Africa • Ukuxazululwa kwezinkinga zemali ezifaka isamba noshintshi owuhlweza nemali yamaphepha • Guqula imali ewuhlweza ibe amaphepha; eyamaphepha ibe uhlweza .
UKUBALA OKUKHULULEKILE				
1.12 **Amasu (izindlela noma amaqhinga)**		Sebenzisa lamasu alandelayo uma ubala: • Imidwebo noma izinsiza kufundisa eziphathekayo zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Umugqa wezinombolo ohambisana nezinto eziphathekayo.	Sebenzisa lamasu alandelayo uma ubala: • Imidwebo noma izinsiza kufundisa eziphathekayo zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Umugqa wezinombolo	Sebenzisa lamasu alandelayo uma ubala: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Umugqa wezinombolo • Ukusondezela emashumini

ULWAZI	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
1.13 **Ukuhlanganisa nokususa**	Xazulula ngomlomo izinkinga zokuhlukanisa nokuhlanganisa ezinezixazululo ezifinyelela e-10.	• Hlanganisa kuze kufike kuma – 20 • Susa ema – 20 • Sebenzisa izimpawu ezifanele (+, –, =, □) • Yenza uphindelela amabhondi kuze kufike e – 10	• Hlanganisa kuze kufike kuma – 99 • Susa ema – 99 • Sebenzisa izimpawu ezifanele (+, –, =, □) • Yenza uphindelela amabhondi kuze kufike e – 20	• Hlanganisa kuze kufike kuma – 999 • Susa ema – 999 • Sebenzisa izimpawu ezifanele (+, –, =, □) • Yenza uphindelela amabhondi kuze kufike ema – 30
1.14 **Ukuhlanganisa ngokuphindelela okuholela ezibalweni zokuphindaphinda**		• Hlanganisa inombolo efanayo ngokuphindelela kufinyelela ema – 20 • Sebenzisa izimpawu ezifanele (+, =, □)	• phindaphinda izinombolo kusukela kweyodwa kuya kwezilishumi ngoku - 2,5,3 nangoku-4 kuze kufike ema – 50 • Sebenzisa izimpawu ezifanele (+, x, =, □)	• Phindaphinda noma iyiphi inombolo ngoku -2,3,4,5,10 kuze kufike e– 100 • Sebenzisa izimpawu ezifanele (x, □)
1.15 **Ukwahlukanisa**				• Hlukanisa izinombolo kufinyelela e - 100 ngalezi zinombolo: 2,3,4,5,10 • Sebenzisa izimpawu ezifanele (÷, =, □)

ULWAZI	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
1.16 **Izibalo zekhanda**	**Ulwazi lwezinombolo: Uhla olufinyelela e-10** Umsebenzi ngamunye uqala ngezibalo zekhanda: • Bala izinto zansukuzonke • Bala uye phambili ubuye uye emumva • Ukubala ngezinombolo ezisho isikhundla • Shaya izandla kaningi/ kambalwa • Ikuphi ukushaya okuningi/ okuncane/okungaphezulu/ okumbalwa • Iyiphi inombolo eba ngaphambili/ ngemimva/ ephakathi	**Ulwazi lwezinombolo: uhla olufinyelela e – 20** • Shono inombolo engaphambi noma emuva kwenombolo enikiwe. • Hlela iqoqo olinikwe lezinombolo ezikhethiwe. • Qhathanisa izinombolo kufinyelela ema-20 usho ukuthi iyiphi enkulu noma encane ngokukodwa noma okubili.	**Ulwazi lwezinombolo: uhla olufinyelela e – 99** • Hlela iqoqo olinikwe lezinombolo ezikhethiwe. • Qhathanisa izinombolo kufinyelela ema-99 bese usho ukuthi iyiphi enkulu noma encane ngoku -1.2,3,4,5,10	**Ulwazi lwezinombolo: uhla olufinyelela e –1000** • Hlela iqoqo olinikwe lezinombolo ezikhethiwe. • Qhathanisa izinombolo kufinyelela ema-1000 usho ukuthi iyiphi enkulu noma encane ngoku -1.2,3,4,5,10
		Ukukhumbula okusheshayo: • Imigomo yokuhlanganisa nokususa ukufika e -10.	**Ukukhumbula okusheshayo:** • Imigomo yokuhlanganisa nokususa kufika ema-20 • Susa noma uhlanganise ubala ngokuyishumi kusukela ku-0 kuya e-100	**Ukukhumbula okusheshayo:** • Khumbula imigomo yokuhlanganisa nokususa kufika ema-20 • Susa noma uhlanganise ubala ngokuyishumi kusukela ku-0 kuya e-100 • Imigomo yikuphindaphinda usebenzisa: - Ithebula lokuphindaphinda ngokubili kufika ema - 20 - Ithebula lokuphindaphinda ngokuyi - 10 kufika e – 100

ULWAZI	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
1.16 **Izibalo zekhanda**		**Amaqhinga okubala:** Sebenzisa amaqhinga okuhlanganisa nokususa ngokuyikho: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma ubala uya emumva. • Umugqa wezinombolo. • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Ukwakha nokuhlakaza izinombolo	**Amaqhinga okubala:** Sebenzisa amaqhinga okuhlanganisa nokususa ngokuyikho: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma ubala uya emumva. • Umugqa wezinombolo. • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa.	• Imigomo yokuhlukanisa izinombolo: - Hlukanisa ngokubili kufinyelela ema – 20 - Hlukanisa ngokuyi – 10 kufinyelela e – 100 **Amaqhinga okubala:** Sebenzisa lamaqhinga alandelayo: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma ubala uya emumva. • Umugqa wezinombolo. • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa. • Sebenzisa ubudlelwano phakathi kokuphindaphinda nokuhlukanisa.

ULWAZI	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
1.17 **Amaqhezu**			• Sebenzisa bese usho ingxenye eyodwa kokuphelele kwizimo ezejwayelekile ufaka ohhafu, amakota, okukodwa kokuthathu nokukodwa kokuhlanu. • Ukukwazi ukubona amaqhezu emidwebweni • Bhala amaqhezu kahhafu o-1	• Sebenzisa bese usho ingxenye eyodwa kokuphelele kanye nezingxenye ezingaphezulu kweyodwa kokuphelele kwizimo ezejwayelekile kufaka ohhafu, amakota, okukodwa kokuyisishiyagalombili, okukodwa kokuthathu, okukodwa kokuhlanu, okukodwa kokuyisithupha. • Ukukwazi ukubona amaqhezu kwimidwebo • Ukukwazi ukubona ukuthi ohhafu ababili noma okuthathu kokuthathu kwenza okuphelele, nokuthi uhhafu owodwa kanye namakota amabili kuyalingana. • Bhala amaqhezu njengohhafu, nokubili kokuthathu (Isib. ½)

ULWAZI JIKELELE EMABANGENI APHANSI

2. AMAPHETHINI, UKUXHUMANAKANYE NE-ALJEBHRA

Inqubekela phambili kumaphethini, imisebenzi kanye ne-Aljebhra

- Kumaphethini, Imisebenzi kanye ne-Aljebhra, abafundi bathola amathuba oku:
  - qedela bese uqhubeke amaphethini lela ezahlukene; kanye
  - nokukhomba nokuchaza amaphethini.
- Ukuchaza amaphethini kwenza isisekelo kubafundi bamaBanga Aphakathi (Intermediate Phase) ukuchaza imithetho yamaphethini. Lokho kuphenduka kube ngokuhleliwe emsebenzini wama-aljebhra kumaBanga Aphezulu (Senior Phase).

IZIHLOKO	IBANGA- R	IBANGA-1	IBANGA-2	IBANGA-3
2.1 **Amaphethini asejiyometri**	**Kopisha bese uqhubeka** Kopisha bese uqhubeka namaphethini alula usebenzisa izinto eziphathekayo nemidwebo (Isib: usebenzisa imibala nezimo).	**Kopisha, uqhubeke bese uchaza** Kopisha, uqhubeke bese uchaza • ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo. • Amaphethini alula enziwe ngemidwebo yemigqa, izimo noma izinto **Ukwakha amaphethini akho** Akha amaphethini akho okusazibalo mdwebo • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto **Amaphethini asizungezile** Khomba, uchaza ngamagama ukopishe amaphethini okusazibalo mdwebo • emvelweni • kusuka empilweni yesimanje yansuku zonke, • kusuka emasikweni ethu ayigugu	**Kopisha, uqhubeke bese uchaza** Kopisha, uqhubeke bese uchaza • ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo. • Amaphethini axube izinto eziningi enziwe ngemidwebo yemigqa, izimo noma izinto **Ukwakha nokuchaza amaphethini akho** • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto **Amaphethini asizungezile** Khomba, uchaza ngamagama ukopishe amaphethini okusazibalo mdwebo • emvelweni • kusuka empilweni yesimanje yansuku zonke. • kusuka emasikweni ethu ayigugu	**Kopisha, uqhubeke bese uchaza** Kopisha, uqhubeke bese uchaza • ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo • Amaphethini axube izinto eziningi ezenziwe ngemidwebo yemigqa, izimo noma izinto **Ukwakha nokuchaza amaphethini akho** • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto **Amaphethini asizungezile** Khomba, uchaze ngamagama bese ukopisha amaphethini okusazibalo mdwebo • emvelweni • kusuka empilweni yesimanje yansuku zonke. • kusuka emasikweni ethu ayigugu
2.2 **Amaphethini ezinombolo**		**Kopisha, uqhubeke bese uchaza** Kopisha, uqhubeke bese uchaza ukulandelana okulula kwezinombolo okungenani kufike e - 100 **Ukwakha nokuchaza amaphethini akho**	**Kopisha, uqhubeke bese uchaza** Kopisha, uqhubeke bese uchaza ukulandelana okulula kwezinombolo okungenani kufike e - 200 **Ukwakha nokuchaza amaphethini akho**	**Kopisha, uqhubeke bese uchaza** Kopisha, uqhubeke bese uchaza ukulandelana okulula kwezinombolo okungenani kufike e - 999 **Ukwakha nokuchaza amaphethini akho**

ULWAZI JIKELELE EmaBangeni APHANSI

3. INDAWO NESIMO (IJIYOMETRI)

Inqubekela phambili yendawo nesimo

Ingqubekela phambili ebalulekile kwindawo nesimo yenzeka ngoku:

- ngokugxila ezakhiweni ezintsha nasezimpawini zezimo nezinto kumaBanga onke; kanye
- noukusuka ekufundeni ulimi lwesikhundla kanye nokuqondanisa ukubukeka okwahlukene kwezinto ezifanayo kuya ekufundeni nasekulandeleni izinkomba kumabalazwe angahlelekile.

IZIHLOKO	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
3.1 **Isikhundla, isimo nokubukeka kwento**	**Ulimi lwesikhundla** Chaza isikhundla sento eyodwa kwenye. isib: phezu kwe-, phambi kwe;ngemuva kwe-; kwesokunxele; kwesokudla; phezulu; phansi; eduze kwe-	**Ulimi lwesikhundla** Chaza isikhundla sento eyodwa kwenye. isib: phezu kwe-, phambi kwe;ngemuva kwe-; kwesokunxele; kwesokudla; phezulu; phansi; eduze kwe-	**Ulimi lwesikhundla** Chaza isikhundla sento eyodwa kwenye. isib: phezu kwe-, phambi kwe;ngemuva kwe-; kwesokunxele; kwesokudla; phezulu; phansi; eduze kwe-	
	Isikhundla nezinkomba • Landela izinkomba ulokhu uhamba ekilasini	**Isikhundla nokubuka** • Bona bese uqondanisa ukubukeka okwahlukene kwezinto ezifanayo zansuku zonke **Isikhundla nezinkomba** • Landela izinkomba ulokhu uhamba ekilasini • Landela imiyalelo ukubeka into eyodwa enobudlelwano nokunye isib: beka ipeni emuva kwebhokisi	**Isikhundla nokubuka** • Bona bese uqondanisa ukubukeka okwahlukene kwezinto ezifanayo zansuku zonke **Isikhundla nezinkomba** • Landela izinkomba ulokhu uhamba ekilasini	**Isikhundla nokubuka** • Bona bese uqondanisa ukubukeka okwahlukene kwezinto ezifanayo zansuku zonke • Isho into yansuku zonke uma ikhonjiswe ngendlela engajwayelekile • Funda, humusha bese udweba ibalazwe elingahlelekile, noma ukubuka ngaphezulu iqoqo lezinto. • Thola izinto kubalazwe **Isikhundla nezinkomba** • Landela izinkomba ulokhu uhamba ekilasini nasesikoleni. • Nika izinkomba zokulokhu uhamba ekilasini nasesikoleni. • Landela izinkomba ezisuka endaweni eyodwa kuya kwenye ebalazweni elingahlelekile.

IZIHLOKO	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
3.2 **Izinto ezinhlangothi ntathu (3-D)**	**Uhla lwezinto** Bona uphinde ubize izinto ezinhlangothi ntathu (3-D) ekilasini Izinto ezisabhola • Izinto ezisabhokisi **Izimpawu zezinto** Chaza, hlela bese uqhathanisa izinto ezinhlangothi ntathu (3-D) ngoku: • wobungako • imibala • izinto eziginqikayo • izinto ezishelelayo **Imisebenzi okugxilwa kuyo** • Sebenzisa izinto ezinhlangothi ntathu (3-D) njengamabhuloki okwakha, okusetshenziswa kabusha, njll ukwakha izinto ezakhiwe ngezinto ezahlukene. Isib: umbhoshongo, ibhuloho njll	**Uhla lwezinto** Bona uphinde ubize izinto ezinhlangothi ntathu (3-D) ekilasini nasezithombeni. • Izinto ezisabhola (imbulunga) • Izinto ezisabhokisi (iphrizimu) **Izimpawu zezinto** Chaza, hlela bese uqhathanise izinto ezinhlangothi ntathu (3-D) ngoku: • wobungako • imibala • izinto eziginqikayo • izinto ezishelelayo **Imisebenzi okugxilwa kuyo** • Bheka futhi wakhe izinto ezinhlangothi ntathu (3-D) usebenzisa izinto eziphathekayo njengamabhuloki okwakha, okusetshenziswa kabusha, izinto zokwakha.	**Uhla lwezinto** Bona uphinde ubize izinto ezinhlangothi ntathu (3-D) ekilasini nasezithombeni. • Izinto ezisabhola (imbulunga) • Izinto ezisabhokisi (iphrizimu) • isilinda **Izimpawu zezinto** Chaza, hlela bese uqhathanise izinto ezinhlangothi ntathu (3-D) ngoku: • wobungako • izinto eziginqikayo • izinto ezishelelayo **Imisebenzi okugxilwa kuyo** • Bheka futhi wakhe izinto ezinhlangothi ntathu (3-D) usebenzisa izinto eziphathekayo, izimo ezinhlangothi mbili, amabhuloki okwakha, okusetshenziswa kabusha, izinto zokwakha nezinto ezinhlangothi ntathu ezisazibalo mdwebo.	**Uhla lwezinto** Bona uphinde ubize izinto ezinhlangothi ntathu (3-D) ekilasini nasezithombeni. • Izinto ezisabhola • (imbulunga) • Izinto ezisabhokisi • (iphrizimu) • isilinda • iphiramidi • ikhoni **Izimpawu zezinto** • Chaza, hlela bese uqhathanise izinto ezinhlangothi ntathu (3-D) ngoku: • izimo ezinhlangothi mbili (2-D) ezenza ubuso bezinto ezinhlangothi ntathu • ingaphezulu lendawo endlalekile noma emagwingci **Imisebenzi okugxilwa kuyo** • Bheka futhi wakhe izinto ezinhlangothi ntathu (3-D) usebenzisa izinto eziphathekayo njengezimo ezinhlangothi mbili ezisikiwe, ubumba, izinti zokuvungula, izinti zokuphuza,nezinye izinto ezinhlangothi ntathu ezisazibalo mdwebo.

IZIHLOKO	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
3.3 **Izimo ezinhlangothi mbili (2-D)**	**Uhla lwezimo** • Bona bese usho izimo ezinhlangothi mbili (2-D) • indilinga • unxantathu Ukukhumbula, ukubona nokusho amagama ezimo ezinhlangothi mbili ekilasini nasezithombeni, ukufaka: • izimpawu zabafundi • igama lekilasi • isikwele **Izimpawu zezimo** • Chaza, hlela bese uqhathanise izimo ezinhlangothi mbili (2-D) ngoko: • bungako • imibala • amacala aqondile • amacala ayindilinga	**Uhla lwezimo** Bona bese usho izimo ezinhlangothi mbili (2-D) • indilinga • unxantathu • isikwele **Izimpawu zezimo** • Chaza, hlela bese uqhathanise izimo ezinhlangothi mbili (2-D) ngoko: • bungako • imibala • amacala aqondile • amacala ayindilinga	**Uhla lwezimo** Bona bese usho izimo ezinhlangothi mbili (2-D) • indilinga • unxantathu • isikwele • unxande **Izimpawu zezimo** • Chaza, hlela uphinde uqhathanise izimo ezinhlangothi mbili (2-D) ngoko: • wobungako • isimo • amacala aqondile • amacala ayindilinga	**Uhla lwezimo** Bona bese usho izimo ezinhlangothi mbiliu (2-D) • indilinga • unxantathu • isikwele • unxande **Izimpawu zezimo** • Chaza, hlela uphinde uqhathanise izimo ezinhlangothi mbili (2-D) ngoko: • isimo • amacala aqondile • amacala ayindilinga **Dweba izimo** • izindilinga • onxantathu • izikwele • onxande

IZIHLOKO	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
3.4 **Okufana nse nxazombili**	**Okufananse nxazombili** • Ukubona ukuhlukana komzimba wakhe kabili izingxenye ezifana nse.	**Okufananse nxazombili** • Ukubona ukuhlukana komzimba wakhe kabili izingxenye ezifana nse. • Bona uphinde udwebe umugqa ohlukanisa izimo ezinhlangothi mbili ezisazibalo mdwebo nalezo ezingezona ijiyometri.	**Okufananse nxazombili** • Bona uphinde udwebe umugqa ohlukanisa izimo ezinhlangothi mbili ezisazibalo mdwebo nalezo ezingezona ijiyometri.	**Okufananse nxazombili** • Bona uphinde udwebe umugqa ohlukanisa izimo ezinhlangothi mbili ezisazibalo mdwebo nalezo ezingezona ijiyometri. • Thola umugqa ohlukanisa izinto phakathi zilingane ngokugoqa iphepha phakathi nendawo lihlukane kabili.

ULWAZI JIKELELE EMABANGENI APHANSI 4. ISILINGANISO				
Ingqubekela phambili ekulinganiseni • Ingqubekela phambili ebalulekile ekulinganiseni kuwo wonke amaBanga yenzeka ngokwethulwa kwalokhu: - Izindlela ezintsha zokulinganisa; - Amathulusi amasha okulinganisa, kuqala emathulizini angahlelekile kuya kumathuluzi ahlelekile kumaBanga 2 no 3; - Izikali ezintsha zokulinganisa, ikakhulukazi kumaBanga 2 no 3, • Ukubala nokuxazululwa kwezinkinga zokulinganisa kumele kunakekekelwe ukuthi kusetshenziswe izinombolo esezifundiwe.				
IZIHLOKO	**IBANGA R**	**IBANGA LOKU-1**	**IBANGA LESI-2**	**IBANGA LESI-3**
4.1 **Isikhathi**	**Ukudlula kwesikhathi** Ukuxoxa ngokudlula kwesikhathi • Kuxoxwa ngezinto ezenzeke emini nasebusuku • Abafundi balandelanisa izigameko ezenzeke emini • Abafundi bahlela izigameko ezenzeka njalo ezimpilweni zabo	**Ukudlula kwesikhathi** Ukuxoxa ngokudlula kwesikhathi • Hlela izigameko ezenzeka ezimpilweni zabo. • Qhathanisa ubude besikhathi usebenzisa ulimi isib. side kuna, sifushane kuna, siyashesha kuna, sihamba kancane kuna. • Hlela izigameko usebenzisa ulimi njengokuthi izolo, namuhla, kusasa.		

IZIHLOKO	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
4.1 **Isikhathi**		**Ukusho isikhathi** • Chaza ukuthi into yenzeka nini ngokusebenzisa ulimi isib ekuseni, ntambama, ebusuku, ngaphambi kwesikhathi, ngemuva kwesikhathi. • Shono bese ulandelanisa izinsuku zesonto nezinyanga zonyaka. • Faka izinsuku zokuzalwa ekhalendeni.	**Ukusho isikhathi** • Shono bese ulandelanisa izinsuku zesonto nezinyanga zonyaka. • Faka izinsuku zokuzalwa, imugubho yezenkolo, amaholidi, izigameko zomlando, izigameko zesikole ekhalendeni. • Isho isikhathi ngokwa mahora, isigamu sehora kanye nekota lehora. **Bala ubude besikhathi nokudlula kwesikhathi** • Sebenzisa ikhalenda ukubala nokuchaza ubude besikhathi: - Ngezinsuku, - Ngamasonto • Sebenzisa iwashi ukubala ubude besikhathi: - Ngamahora - Uhhafu wehora	**Ukusho isikhathi** • Funda izinsuku (umhlaka bani) ekhalendeni • Faka izinsuku zokuzalwa, imugubho yezenkolo, amaholidi, izigameko zomlando, izigameko zesikole ekhalendeni. • Isho isikhathi ngokwa - amahora - uhhafu wehora - ikota lehora - amaminithi usebenzisa iwashi lezinti nelezinombolo nezinye izinto zokukala isikhathi isib. umakhalekhukhwini **Bala ubude besikhathi nokudlula kwesikhathi** • Sebenzisa ikhalenda ukubala nokuchaza ubude besikhathi: - Ngezinsuku, - Ngamasonto - Ngezinyanga • Ukushintsha kusuka ezinsukwini kuya evikini • Ukushintsha kusuka emavikini kuya ezinyangeni • Sebenzisa iwashi ukubala ubude besikhathi: - ngamahora - ngohhafu wehora - ngekota lehora

IZIHLOKO	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
4.2 **Ubude**	**Ukukala okungahlelekile** • Qhathanisa bese uhlela ubude, ukuphakama noma ububanzi bezinto ezimbili noma ngaphezulu ngokuzibeka eduze kwenye. Sebenzisa ulimi ukukhuluma ngokuqhathanisa Isib. Okude kuna, okufushane kuna, okude kuna, okubanzi ngokuthe xaxa,	**Ukukala okungahlelekile** • Qhathanisa bese uhlela ubude, ukuphakama noma ububanzi bezinto ezimbili noma ngaphezulu ngokuzibeka eduze kwenye. Sebenzisa ulimi ukukhuluma ngokuqhathanisa Isib. Okude kuna, okufushane kuna, okude kuna, okubanzi ngokuthe xaxa, • Qagela, linganisa, qhathanisa, hlela bese ubhala phansi ubude usebenzisa ukukala okungenasilinganiso Isib. ngezandla, amagxathu, ubude bamapensela, nezinto zokubala • Chaza ubude bezinto ngokubala bese usho ubude ngokwezikali ezingahlelekile.	**Ukukala okungahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala phansi ubude usebenzisa ukukala okungenasilinganiso Isib. ngezandla, amagxathu, ubude bamapensela, nezinto zokubala • Chaza ubude bezinto ngokubala bese usho ubude ngokwezikali ezingahlelekile. **Ukwethulwa kokulinganisa ngokuhlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala ubude usebenzisa amamitha (induku eyimitha noma intambo eyimitha) njengesikali esilinganisiwe sobude.	**Ukukala okungahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala phansi ubude usebenzisa ukukala okungenasilinganiso Isib. ngezandla, amagxathu, ubude bamapensela, nezinto zokubala • Chaza ubude bento ngokubala bese usho ukuthi kude kangakanani ngesikali esingahlelekile. **Ukwethulwa kokulinganisa ngokuhlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala ubude usebenzisa amamitha (induku eyimitha noma intambo eyimitha) njengesikali esilinganisiwe sobude. • Qagela bese ulinganisa ubude ngamasentimitha usebenzisa irula (akudingekile ukuguqula amamitha abe amasentimitha)

IZIHLOKO	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
4.3 **Isisindo**	**Isilinganiso okungahlelekile** • Qhathanisa bese uhlela isisindo sezinto ezimbili noma ngaphezulu ngokuzizwa noma usebenzise isikali sokuzimelela. • Sebenzisa ulimi ukuqhathanisa, Isib. kulula, kuyesinda, kulula kuna, kusinda kune	**Isilinganiso okungahlelekile** • Qagela, linganisa, qhathanisa, hlela, bese ubhala isisindo usebenzise isikali sokuzimelela kanye nokukala okungenasilinganiso Isib. amabhulokisi, izitini. • Chaza isisindo sezinto ngokubala ukhombise isisindo ngokwe zikali ezingahlelekile. • Sebenzisa ulimi ukuqhathanisa, Isib. kulula, kuyesinda, kulula kuna, kusinda kune	**Isilinganiso okungahlelekile** • Qagela, linganisa, qhathanisa, hlela, bese ubhala isisindo usebenzise isikali sokuzimelela kanye nokukala okungenasilinganiso Isib. amabhulokisi, izitini. • Chaza isisindo sezinto ngokubala ukhombise isisindo ngokwe zikali ezingahlelekile • Sebenzisa ulimi ukuqhathanisa, Isib. kulula, kuyesinda, kulula kuna, kusinda kune **Ukwethulwa kokulinganisa okukuhlelekile** • Qhathanisa, hlela ubhale isisindo sezinto ezithengisayo ezinesisindo esikaliwe esingama khilogram Isib.2 amakhilogramu elayisi,1 ikhilogramu ka fulawa. • Linganisa isisindo sakho ngamakhilogramu usebenzisa isikali sasendlini yokugeza	**Isilinganiso okungahelekile** • Qagela,linganisa,qhathanisa,hlela ,bese ubhala isisindo usebenzise isikali sokuzimelela kanye nokukala okungenasilinganiso Isib. amablokisi,izitena • Chaza isisindo sezinto ngokubala ukhombise isisindo ngokwe zikali ezingahlelekile • Sebenzisa ulimi ukuqhathanisa, Isib. kulula, kuyesinda, kulula kune, kusinda kune **Ukwethulwa kokulinganisa okukuhlelekile** • Qhathanisa, uhlele bese ubhala isisindo sezimpahla ezipakishiwe sabhalwa: - ngamakhilogramu. isib 2 amakhilogramu wempuphu no 1 khilogramu washukela. - Amagramu isib 500g kasawoti • Linganisa isisindo sakho ngamakilogramu usebenzisa isikali sasendlini yokugeza.. Ayikho inguquko edingekayo phakathi kwamagramu namakhilogramu
4.4 **Umthamo / okumumethwe**	**Ukukala okungahlelekile** • Qhathanisa bese uhlela umthamo woketshezi olusezitsheni ezimbili ezibekwe ndawonye. Abafundi bazohlola ngokuthi bathele uketshezi esitsheni sesithathu. • Qhathanisa bese uhlela umthamo woketshezi olungamumathwa izitsha ezimbili uma zigcwele. • Sebenzisa ulimi uqhathanise Isb. okuningi kunokunye, okuncane kunokunye, okugcwele, okungekho lutho.	**Ukukala okungahlelekile** • Qhathanisa bese uhlele umthamo woketshezi olusezitsheni ezimbili ezibekwe ndawonye. Abafundi bazohlola ngokuthi bathele uketshezi esitsheni sesithathu. • Qhathanisa bese uhlela umthamo woketshezi olungamumathwa izitsha ezimbili uma zigcwele. • Sebenzisa ulimi ukuqhathanise Isib. okuningi kunokunye, okuncane kunokunye, okugcwele, okungekho lutho.	**Ukukala okungahlelekile**	**Ukukala okungahlelekile**

IZIHLOKO	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
4.4 **Umthamo / okumumethwe**		• Qagela, linganisa, qhathanisa, hlela bese ubhala umthamo wezitsha usebenzisa ukukala okungenasilinganiso Isib.izipuni kanye nezinkomishi. • Chaza umthamo wesitsha ngokubala bese usho ukuthi ugcwala ngezikali ezingaki ezingahlelekile Isib.ibhodlela lithatha umthamo wezinkomishi ezine.	• Qagela, linganisa, qhathanisa, hlela bese ubhala umthamo wezitsha (Isib.umthamo ongagcwalisa isitsha) usebenzisa ukukala okungenasilinganiso Isib. izipuni kanye nezinkomishi. • Chaza umthamo wesitsha ngokubala bese usho ukuthi ugcwala ngezikali ezingaki ezingahlelekile Isib.ibhodlela lithatha umthamo wezinkomishi ezine. **Ukuthulwa kokulinganisa okuhlelekile** • Qagela, linganisa, qhathanisa, uhlele bese ubhala umthamo wezinto ezikalwe ngamalitha. • Qhathanisa, hlela bese ubhalea umthamo wezinto ezithengisayo ezikaliwe ezingamalitha Isib.2 amalitha obisi, 1 ilitha lesiphuzo, 5 amalitha kapende.	• Qagela, linganisa, qhathanisa, hlela bese ubhala umthamo wezitsha (Isib.umthamo ongagcwalisa isitsha) usebenzisa ukukala okungenasilinganiso Isib. izipuni kanye nezinkomishi. • Chaza umthamo wesitsha ngokubala bese usho ukuthi ugcwala ngezikali ezingaki ezingahlelekile Isib.ibhodlela lithatha umthamo wezinkomishi ezine. **Ukuthulwa kokulinganisa okuhlelekile** • Qagela, linganisa, qhathanisa, uhlele bese ubhala umthamo wezinto ezikalwe ngamalitha, uhhafu welitha nekota yelitha. • Qhathanisa, hlela bese ubhala umthamo wezinto ezithengisayo ezikaliwe ezingamalitha isib 2 amalitha obibs, 1 ilitha lesiphuzo, 5 amalitha kapende noma ibhalwe ngamamililitha isib 500 amamililitha wobisi, 340mamililitha wesiphuzo, 750 amililitha kawoyela • Inkomishi yetiye ejwayelekile ingamamililitha angama 250. • Ithisipuni ejwayelekile ingamamililitha ama 5. (Ayikho inguquko edingekayo phakathi kwamamililitha namalitha)

IZIHLOKO	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
4.5 **Ubude bengaphandle lento kanye nobubanzi bendawo**				**Ubude bengaphandle lento** Phenya iBanga lezimo ezinhlangothi mbili 2-D nezinto ezinhlangothintathu 3-D usebenzisa ukuqhathanisa ngqo noma isikali esingahlelekile. **Ububanzi bendawo** Phenya ububanzi bendawo ngokusebenzisa amathayela (aphansi / obondeni)

ULWAZI JIKELELE EMABANGENI APHANSI 5. UKUQOKELELWA KOLWAZI LWEZIBALO				
Inqubekela phambili kokuqokelelwa kolwazi lwezibalo • Inqubekela phambili ebalulekile ekuqokelelweni kolwazi lwezibalo kumaBanga ahlukene yenzeka ngoku: - Ukusuka ekusebenzeni ngezinto uye ekusebenzeni ngolwazi, futhi - Usebenza ngezindlela ezintsha zokukhombisa ulwazi lwezibalo. • Abafundi kufanele basebenze ngolwazi lwezibalo oluphelele okungenani kanye ngonyaka – lokhu kufaka ukuqoqa kanye nokuhlela ulwazi, ukwethulwa kolwa, ukuhlaziya, ukuhumusha kanye nombiko wolwazi. • Ezinye izingxenye zolwazi oluqokelelwe lungenzeka kweminye imisebenzi yezibalo.				
IZIHLOKO	**IBANGA R**	**IBANGA LOKU-1**	**IBANGA LESI-2**	**IBANGA LESI-3**
5.1 **Ukuqoqa nokuhlela izinto**	**Ukuqoqa nokuhlela izinto** Qoqa bese uhlela izinto eziphathekayo zansukuzonke	**Ukuqoqa nokuhlela izinto** Qoqa bese uhlela izinto eziphathekayo zansukuzonke		
5.2 **Okumele iqoqo lezinto eziphathekayo ezihlelekile**	**Beka okumele iqoqo lezinto eziphathekayo ezihlelekile .** Dweba isithombe sezinto eziqoqiwe	**Beka okumele iqoqo lezinto eziphathekayo ezihlelekile** Dweba isithombe sezinto eziqoqiwe		
5.3 **Ukuxoxa nokubika ngeqoqo lezinto eziphathekayo ezihlelekile**	**Xoxa ubike ngeqoqo lezinto eziphathekayo ezihlelekile** • Phendula imibuzo ngoku: - kuhlelwe kanjani okuqoqiwe - kudwetshwe kanjani okuqoqiwe	**Xoxa nubike ngeqoqo lezinto eziphathekayo ezihlelekile** • Nika izizathu ngokuthi okuqoqiwe kuhlelwe kanjani ; • Phendula imibuzo ngoku: - Zihlelwe kanjani izinto (indlela owenze ngayo) - Okuhleliwe kwaqoqwa kubukeka kanjani • Chaza okuqoqiwe / umdwebo • Chaza ukuthi okuqoqiwe kuhlelwe kanjani		

IZIHLOKO	IBANGA R	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
5.4 **Ukuqoqa bese uhlela ulwazi**		**Qoqa uphinde uhlele ulwazi lwezibalo** • Qoqa ulwazi ngekilasi noma isikole ukuze uphendule imibuzo ethulwa uthisha	**Qoqa uphinde uhlele ulwazi lwezibalo** • Qoqa ulwazi ngekilasi noma isikole ukuze uphendule imibuzo ethulwa uthisha	**Qoqa uphinde uhlele ulwazi** • Qoqa ulwazi ngekilasi noma isikole ukuze uphendule imibuzo ethulwa uthisha • Hlela ulwazi olwethulwe uthisha noma incwadi yomfundi noma yokusebenza • Hlela ulwazi lwezibalo kulokhu: - Uhla - amathalisi - amathebula
5.5 **Ukubeka okumele ulwazi**		**Ukubeka okumele ulwazi** • Beka okumele ulwazi ngokusebenzisa igrafu yezithombe • Sebenzisa igrafu yezithombe okukodwa nokukodwa okuhambisanayo.	**Ukubeka okumele ulwazi** • Beka okumele ulwazi ngokusebenzisa igrafu yezithombe • Sebenzisa igrafu yezithombe okukodwa nokukodwa okuhambisanayo.	**Ukubeka okumele ulwazi** • Beka okumele ulwazi: - Ngokwenza igrafu yezithombe (Sebenzisa igrafu yezithombe okukodwa nokukodwa okuhambisanayo) - amabhagrafu
5.6 **Ukuhlaziya nokuhumusha ulwazi**		**Ukuhlaziya nokuhumusha ulwazi** Phendula imibuzo ngolwazi kwigrafu yezithombe • Sebenzisa igrafu yezithombe okukodwa nokukodwa okuhambisanayo.	**Ukuhlaziya nokuhumusha ulwazi** Phendula imibuzo ngolwazi kwigrafu yezithombe • Sebenzisa igrafu yezithombe okukodwa nokukodwa okuhambisanayo.	**Ukuhlaziya nokuhumusha ulwazi** Phendula imibuzo ngokumele ulwazi ngo: • Ngokwenza igrafu yezithombe (Sebenzisa igrafu yezithombe okukodwa nokukodwa okuhambisanayo) • Bhagrafu

3.3 UKUCACISA OKUQUKETHWA

Kulengxenye yokucaciswa kolwazi, othisha banikezwa lokhu:

- Ulwazi jikelele lweThemu lwamaBanga R - 3;
- Iziphakamiso zokulandelana kwezihloko ngokwamathemu: akuzona zonke izingxenye zezihloko ezifundiswayo ithemu ngayinye; ezinye izingxenye zezinye izihloko kumele zifundiswe ngaphambili kwezinye izingxenye zalezo zihloko.
- Iziphakamiso zezikhathi ezibekelwe izihloko onyakeni. Njengoba ezinye izingxenye zolwazi zidinga isikhathi esiningi kezinye, ngakhoke ezinye izihloko zidinga isikhathi esiningi kunezinye; kanye
- NAmanothi Acacisayokanye nomhlahlandlela wokufundisa onezibonelo ezifanele.

Ingxenye ngayinye yolwazi ihlukaniswe ngezihloko. Zonke izingxenye zolwazi kufanele zifundiswe ngethemu. Ukuhleleka kwezihloko ngamathemu kunika umqondo wokusabalalisa nokubukeza izihloko kuwona wonke amathemu onyakeni. Akubalulekile ukufundisa zonke izihloko zendawo nesimo, isilinganiso kanye ukuqokelelwa kolwazi kuwo wonke amathemu. Kodwa ke akuqikelelwe ukuthi zonke izihloko ziyafundiswa ngonyaka.

Kwingxenye ye – 2 (isigamu 2.6) unikeziwe isisindo sezingxenye zolwazi. Uma kuhlanganiswa amahora anikeziwe onyakeni, ungakwazi ukubala isikhathi sokufundisa sengxenye ngayinye yolwazi.

Othisha Bangakhetha ukuhlela ulwazi balwabele isikhathi ngokwehlukile kunalokho okuphakanyisiwe kule sahluko. Othisha Bangashintsha isikhathi esiphakanyisiwe sesahluko kancane Kodwa ke, kufanele kuqashelwe isisindo esisondelene kanye namahora okufundisa izingxenye zolwazi lwezibalo emaBangeni aphansi.

- **Ebangeni R** izibalo zisemazingeni okuqala ngakhoke akumele zibe nezikhathi zokuzifundisa ezihleliwe. Uthisha weBanga R kufanele afake ukufundiswa kwezibalo emisebenzini yansuku zonke nakuba izikhathi uthisha kufanele abe nesikhathi lapho egxila khona emsebenzini yezibalo, ngaphandle kwalokho abafundi bangeke bathuthuke olwazini namakhono adingekayo ezibalweni.
- Izikhathi zamaBanga R – 3 zibekwe ngalendlela:
  - **Amahora ayisikhombisa kufanele asetshenziselwe izibalo ngesonto** (amasonto ayi -10 x 4 amathemu x 7 amahora = 280 amahora ngonyaka).
  - Isifundo ngasinye sezibalo kufanele **sibe yihora eli-1 namaminithi angama 24 ngosuku kumaBanga 1 – 3.**
  - Lokhu kusho ukuthi kunamathemu amane anamasonto ayi 10 anezifundo ezinhlanu ngesonto (uMsombuluko kuya koLwesihlanu).
  - Banike isonto lokuqala ethemini ukuthi bajwayele futhi babukeze umsebenzi abawenzile, njengoba abafundi bavame ukukhohlwa ulwazi abalufundile ngesikhathi samaholide babuye bakhohlwe inqubo abayejwayele yesikole. Banike isonto lokugcina ethemini ukuba babukeze ulwazi abalufundile. Lokhu kunika 8 x 4 x 5 = 160 izifundo.

3.4 ISIVININI NOKULANDELANISA OKUQUKETHWE

Amathebula alandelayo awamaBanga R – 3:

- Ukulandelana kwezihloko onyakeni (kukhombisa ukuhlelwa kwezihloko ngamathemu kanye nokuncoma ubude besikhathi isihlokweni ngasinye ingxenye yokuqukethwe)
- Ukulandelanisa kwezihloko onyakeni (kukhombisa ukuthi izihloko zifakwe kanjani ngamathemu nenqubekela phambili yilwazi namakhono ngamathemu)
- Amanothi Acacisayoisihloko ngasinye - amathebhula anika incazelo yolwazi nomhlahlandlela wokufundisa ngesihloko ngasinye ngokulandelana kwazo ngamathemu

Ukuhlelwa okuzofundiswa – Ukuhlelwa kwezihloko ngethemu

EmaBangeni aphansi isihloko sezinombolo yisona esisemqoka ekufundweni kwezibalo. Ezikhathini eziningi ezifundweni zezibalo ngesonto, ngethemu nangonyaka kugxilwa ekufundweni kwi - Izinombolo, Ukusebenza kanye Nobudlelwane bazo. Okungenani kathathu noma ngaphezulu ngesonto makugxilwe ezifundweni ze - Izinombolo, Ukusebenza kanye Nobudlelwane bazo. Isikhathi esisele asihlukaniselwe ezinye izingxenye zolwazi lwezibalo.

INdawo neSimo kanye nokuLinganisa kudinga kunikwe isikhathi esiningi kunokuQokelelwa koLwazi, kanye namaPhethini,Imisebenzi kanye ne Aljebhra. Amathebula alandelayo akhombisa ukuthi zingaki izifundo okufanele zenziwe kwingxenye ngayinye yolwazi nesihloko ebangeni ngalinye kumaPhethini, Imisebenzi kanye neAljebhra; Indawo neSimo; Isilinganiso kanye noKuqokelelwa koLwazi.

- IBanga R: Ukuhlelwa kwezingxenye zolwazi nezihloko zezifundo

Izibalo **eBangeni R zisezingeni loqala kolwazi lwezibalo**, ngakhoke isikhathi esiphakamisiwe sokufundisa sisetshenziselwa ukufundiswa kwezibalo ezihleliwe nalezo ezixubene nezinye izifundo ezingahlelelwe.Lokhu kwenzelwe ukukhombisa ukusebenzisa lonke ulwazi olumele lufundiswe. Imisebenzi yezibalo zokuqala ingaba ukubala inani lamapuleti nezinkomishi abazokusebenzisa, imidlalo yokubala abayidlala ngaphandle, imidlalo yasendlini njengamadomino namaphazili,njll. Uthisha kufanele ahlele imisebenzi, alungise izinsiza kufundisa kuye ngokwezidingo zabafundi.

Indawo neSimo iyingxenye esemqoka ekuthuthukisweni kokufundwa kwezibalo kubafundi abasebancane, okufanele isabalaliswe kwisonto lonke, lapho izingxenye ezithile ziholwa uthisha, kuthi amathuba amaningi okwakha, imidlalo yasesihlabathini nasemanzini yenziwe abafundi.

Isilinganiso kufanele kuhlanganiswe nemisebenzi yokubala, njengokuqagela nokubala uma kukalwa iBanga ngezandla, ngezinyawo namanyathelo.

Irejista yansukuzonke kanye neshadi lesimo sezulu kunikeza abafundi ithuba lokusebenza **ngokuqokelela ulwazi**.

Ithebula lesi- 3.1: ukwabiwa kwesikhathi sengxenye yolwazi ngalunye ngesonto

Ingxenye yokuqukethwe	Izihloko	Isikhathi Esiphakanyisiwe
Izinombolo Izimpawu kanye nobudlelwane bazo	Ukubala Ukubona izinombolo Ukukhomba nokuchaza izinombolo Ulwazi lwezinombolo Ukuxazulula izinkinga zezibalo	**120 imizuzu**
Amaphethini, Ukuxhumana kanye ne-Aljebhra	Ukukopisha, ukwandisa, ukwakha iphethini lakhe	**80 imizuzu**
Indawo neSimo (Ijiyometri)	Ukubona, ukukhomba nokusho izimo ezinhlangothi mbili/ izithombe Izibalomdwebo Ukwakha izinto ezinhlangothintathu ngokusebenzisa izinto eziphathekayo Ubudlelwane nendawo Izinkomba	**80 imizuzu**
Isilinganiso	Isikhathi Ubude Isisindo Umthamo	**80 imizuzu**
Ukuqokelelwa kolwazi	Qoqa, hlela, dweba, funda bese ubeka okumele ulwazi.	**60 imizuzu**
ISAMBA		**420 imizuzu** **7 amahora ngesonto**

Ibanga 1: Ukwabiwa kwezingxenye zolwazi nezihloko ezifundweni zamaBanga loku-1 kuya kwele-3

Okungenani izifundo ezintathu (phakathi kwamahora ama - 4 kuya kwa $4\frac{1}{2}$) ngesonto azosetshenziswa ukufundisa **Izinombolo, izimpawu kanye nobudlelwane bazo** emaBangeni oku-1, 2 nele-3. Izifundo ezimbili ezisele (phakathi kwamahora $2\frac{1}{2}$ kuya kwa -3) ahlukaniselwa izihloko zezinye izinxenye zolwazi lwezibalo njengoba kunconyiwe nge-zansi.

Ithebula lesi- 3.2: Inani lezifundo eliphakanyisiwe lengxenye ngayinye yeBanga loku- 1

Ingxenye yokuqukethwe	Isihloko	Inani Lezifundo				
		Ithemu 1	Ithemu 2	Ithemu 3	Ithemu 4	Isamba
Izinombolo kanye nobudlelwane bazo	Zonke izihloko zezinombolo kanye nobudlelwane bazo	22	30	28	25	**105**
Amaphethini, Ukuxhumana kanye ne-Aljebhra	Amaphethini ezinombolo	3	3	3	3	**12**
	Amaphethini ayizibalomdwebo	1	1	1	1	**4**
Indawo neSimo (Ijiyometri)	Izimo ezinhlangothi mbili		3		3	**6**
	Izinto ezinhlangothi ntathu	3		2	1	**6**
	Isikhundla, isimo nokubukeka kwento	2			1	**3**
	Okufana nse nxazombili			1	1	**2**
Isilinganiso	Isikhathi	2				**2**
	Ubude	2		2		**4**
	Isisindo	2			2	**4**
	Umthamo / okumumethwe	1	2		1	**4**
Ukuqokelelwa kolwazi	Ukuqoqa, ukuhlela, ukubeka okumele ulwazi nokuhlaziya izinto	2	1			**3**
	Ulwazi oluphelele			3		**3**
	Izingxenye zolwazi oluphelele				2	**2**
Inani Lezifundo		**40**	**40**	**40**	**40**	**160**

Ithebula lesi- 3.3: Inani lezifundo eliphakanyisiwe lengxenye ngayinye yeBanga lesi- 2

Ingxenye yokuqukethwe	Isihloko	Inani Lezifundo				
		Ithemu 1	Ithemu 2	Ithemu 3	Ithemu 4	Isamba
Izinombolo kanye nobudlelwane bazo	Zonke izihloko zezinombolo kanye nobudlelwane bazo	24	25	24	26	99
Amaphethini, Ukuxhumanakanye ne-Aljebhra	Amaphethini ezinombolo	3	3	3	3	12
	Amaphethini ayizibalomdwebo	1	1	1	1	4
Indawo neSimo (Ijiyometri)	Izimo ezinhlangothi mbili		3		3	6
	Izinto ezinhlangothi ntathu	3		2	1	6
	Isikhundla, isimo nokubukeka kwento		2	1		3
	Okufana nse nxazombili		1		1	2
Isilinganiso	Isikhathi	3	1	3	1	8
	Ubude	3			1	4
	Isisindo		3		1	4
	Umthamo / okumumethwe			3	1	4
Ukuqokelelwa kolwazi	Ukuqoqa, ukuhlela, ukubeka okumele ulwazi nokuhlaziya izinto					
	Ulwazi oluphelele	3		3		6
	Izingxenye zolwazi oluphelele		1		1	2
Inani Lezifundo		**40**	**40**	**40**	**40**	**160**

Ithebula lesi- 3.4: Inani lezifundo eliphakanyisiwe lengxenye ngayinye yeBanga lesi- 3

Ingxenye yokuqukethwe	Isihloko	Inani Lezifundo				
		Ithemu 1	Ithemu 2	Ithemu 3	Ithemu 4	Isamba
Izinombolo kanye nobudlelwane bazo	Zonke izihloko zezinombolo kanye nobudlelwane bazo	26	22	19	27	**94**
Amaphethini, Ukuxhumana kanye ne-Aljebhra	Amaphethini ezinombolo	3	3	3	3	**12**
	Amaphethini ayizibalomdwebo	1	1	1	1	**4**
Indawo neSimo (Ijiyometri)	Izimo ezinhlangothi mbili	2		2		**4**
	Izinto ezinhlangothi ntathu		3	3	1	**7**
	Isikhundla, isimo nokubukeka kwento		2	3		**5**
	Okufana nse nxazombili		2		1	**3**
Isilinganiso	Isikhathi	3	2	3	2	**10**
	Ubude		2	2		**4**
	Isisindo		2		1	**3**
	Umthamo	2			1	**3**
	Ubude bengaphandle lento				1	**1**
	Ububanzi bendawo				2	**2**
Ukuqokelelwa kolwazi	Ulwazi oluphelele	3		3		**6**
	Izingxenye zolwazi oluphelele		1		1	**2**
Inani Lezifundo		**40**	**40**	**40**	**40**	**160**

3.4.1 Ibanga 1 Ulwazi jikelele ngethemu

ULWAZI JIKELELE LEBANGA 1 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANO BAZO				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
UKUTHUTHUKISA ULWAZI LWEZINOMBOLO: Ukubala usebenzisa izinombolo eziphelele				
1.1 **Bala izinto eziphathekayo**	**Bala izinto eziphathekayo kuya kweziyi-10** **Qagela inani lezinto esingazibala ngokuyikho.**	**Bala izinto eziphathekayo kuya kwezingama-20 ngokuyikho.** **Qagela inani lezinto esingazibala ngokuyikho.** **Gqugquzela ukubala izinto ngamaqoqo**	**Bala izinto eziphathekayo kuya kuma-40 ngokuyikho.** **Qagela inani lezinto esingazibala ngokuyiko.** **Gqugquzela ukubala izinto ngamaqoqo.**	**Bala izinto eziphathekayo kuya kuma-50 ngokuyikho.** **Qagela inani lezinto esingazibala ngokuyiko.** **Gqugquzela ukubala izinto ngamaqoqo.**
1.2 **Bala uyaphambili ubuye uye emumva**	**Bala uyaphambili ubuye uye emumva kanje:** • Ngakunye kusukela kunoma iyiphi inombolo phakathi kuka -1 kuya kuma 20.	**Bala uyaphambili ubuye uye emumva kanje:** • Ngakunye kusukela kunoma iyiphi inombolo phakathi kuka -1 kuya kuma 50. **Bala uya phambili kanje:** • Ngama-10 kusuka kunoma iyiphi inombolo phakathi kuka -0 kuya kuma -50. • Ngaku -5 kusuka kunoma iyiphi inombolo phakathi kuka 0 kuya kuma -50. • Ngaku -2 kusuka kunoma iyiphi inombolo phakathi kuka 0 kuya kuma -20	**Bala uyaphambili ubuye uye emumva kanje:** • Ngakunye kusukela kunoma iyiphi inombolo phakathi kuka -1 kuya kuma 80. **Bala uya phambili kanje:** • Ngama-10 kusuka kunoma iyiphi inombolo phakathi kuka -0 kuya kuma -80. • Ngaku -5 kusuka kunoma iyiphi inombolo phakathi kuka 0 kuya kma -80 • Ngaku -2 kusuka kunoma iyiphi inombolo phakathi kuka 0 kuya kuma -80	**Bala uyaphambili ubuye uye emumva kanje:** • Ngakunye kusukela kunoma iyiphi inombolo phakathi kuka -1 kuya kuma 100. **Bala uya phambili kanje:** • Ngama-10 kusuka kunoma iyiphi inombolo phakathi kuka -0 kuya kuma -100. • Ngaku -5 kusuka kunoma iyiphi inombolo phakathi kuka 0 kuya kma -100 • Ngaku -2 kusuka kunoma iyiphi inombolo phakathi kuka 0 kuya kuma -100

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
UKUTHUTHUKISA ULWAZI LWEZINOMBOLO: Beka okumele izinombolo eziphelele				
1.3 **Uphawu negama lenombolo**	**Ukubona, akhombe nokufunda izinombolo** • Bona, khomba bese ufunda izimpawu zezinombolo kusukela koku -1 kuya kuma -20 • Bhala izimpawu zezinombolo kusukela koku -1 kuya koku -5 • Bona, khombea bese ufunda amagama ezinombolo kusukela koku -1 kuya koku -5 • Bhala amagama ezinombolo kusuka koku - 1 kuya koku -5.	**Ukubona, akhombe nokufunda izinombolo** • Bona, khomba bese ufunda izimpawu zezinombolo kusukela koku -1 kuya kuma -50 • Bhala izimpawu zezinombolo kusukela koku -1 kuya koku -10 • Bona, khombea bese ufunda amagama ezinombolo kusukela koku -1 kuya koku -10 • Bhala amagama ezinombolo kusuka koku - 1 kuya koku -10.	**Ukubona, akhombe nokufunda izinombolo** • Bona, khomba bese ufunda izimpawu zezinombolo kusukela koku -1 kuya kuma -80 • Bhala izimpawu zezinombolo kusukela koku -1 kuya koku -20 • Bona, khombea bese ufunda amagama ezinombolo kusukela koku -1 kuya koku -10 • Bhala amagama ezinombolo kusuka koku - 1 kuya koku -10	**Ukubona, akhombe nokufunda izinombolo** • Bona, khomba bese ufunda izimpawu zezinombolo kusukela koku -1 kuya kuma -100 • Bhala izimpawu zezinombolo kusukela koku -1 kuya koku -20 • Bona, khombea bese ufunda amagama ezinombolo kusukela koku -1 kuya koku -10 • Bhala amagama ezinombolo kusuka koku - 1 kuya koku -10
UKUTHUTHUKISA ULWAZI LWEZINOMBOLO: Chaza, qhathanisa bese uhlela izinombolo eziphelele				
1.4 **Chaza, qhathanisa bese uhlela izinombolo**	**Chaza, qhathanisa bese uhlela izinto kuye kufike koku -5** • Qhathanisa amaqoqo ezinto ngobuningi, okumbalwa; ngokuningi kakhulu, okuncane kakhulu; kuningi kuna, kunca kuna; kuyalingana, kuhlukile • Hlela iqoqo lezinto kusukela kwezininginikakhulu kuya kwezincane kakhulu nakwezincane kakhulukuya kwezininginikakhulu	**Chaza, qhathanisa bese uhlela izinto kuye kufike koku -10** • Qhathanisa amaqoqo ezinto ngobuningi, okumbalwa; ngokuningi kakhulu, okuncane kakhulu; kuningi kuna, kunca kuna; kuyalingana, kuhlukile • Hlela iqoqo lezinto kusukela kwezininginikakhulu kuya kwezincane kakhulu nakwezincane kakhulukuya kwezininginikakhulu	**Chaza, qhathanisa bese uhlela izinto kuye kufike koku -15** • Qhathanisa amaqoqo ezinto ngobuningi, okumbalwa; ngokuningi kakhulu, okuncane kakhulu; kuningi kuna, kunca kuna; kuyalingana, kuhlukile • Hlela iqoqo lezinto kusukela kwezininginikakhulu kuya kwezincane kakhulu nakwezincane kakhulukuya kwezininginikakhulu	**Chaza, qhathanisa bese uhlela izinto kuye kufike koku -20** • Qhathanisa amaqoqo ezinto ngobuningi, okumbalwa; ngokuningi kakhulu, okuncane kakhulu; kuningi kuna, kunca kuna; kuyalingana, kuhlukile • Hlela iqoqo lezinto kusukela kwezininginikakhulu kuya kwezincane kakhulu nakwezincane kakhulukuya kwezininginikakhulu

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
1.4 **Chaza, qhathanisa bese uhlela izinombolo**	**Chaza, qhathanisa bese uhlela izinomboli kuye kufike koku -5** • Chaza, qhathanisa izinombolo ngokuthi inkulu kuna, incane kuna, iningi kuna,kungaphansi kuna; kuyalingana • Chaza bese uhlela izinombolo - Kusukela kokuncane kakhulu kuya kokukhulu kakhulu, kusuka kokukhulu kakhulu, kuya kokuncane kakhulu - Usebenzisa umugqa wezinombolo kusuka ku 1 kuya kuoku -5	**Chaza, qhathanisa bese uhlela izinombolo kuye kufike koku -10** • Chaza, qhathanisa izinombolo ngokuthi inkulu kuna, incane kuna, iningi kuna,kungaphansi kuna; kuyalingana • Chaza bese uhlela izinombolo - Kusukela kokuncane kakhulu kuya kokukhulu kakhulu, kusuka kokukhulu kakhulu, kuya kokuncane kakhulu - engaphambi, engemumva, ephakathi nendawo - Usebenzisa umugqa wezinombolo kusuka ku 0 kuya -10	**Chaza, qhathanisa bese uhlela izinombolo kuye kufike koku -15** • Chaza, qhathanisa izinombolo ngokuthi inkulu kuna, incane kuna, iningi kuna,kungaphansi kuna; kuyalingana • Chaza bese uhlela izinombolo - Kusukela kokuncane kakhulu kuya kokukhulu kakhulu, kusuka kokukhulu kakhulu, kuya kokuncane kakhulu - engaphambi, engemumva, ephakathi nendawo - Usebenzisa umugqa wezinombolo kusuka ku 0 kuya -15	**Chaza, qhathanisa bese uhlela izinombolo kuye kufike koku -20** • Chaza, qhathanisa izinombolo ngokuthi inkulu kuna, incane kuna, iningi kuna,kungaphansi kuna; kuyalingana • Chaza bese uhlela izinombolo - Kusukela kokuncane kakhulu kuya kokukhulu kakhulu, kusuka kokukhulu kakhulu, kuya kokuncane kakhulu - engaphambi, engemumva, ephakathi nendawo - Usebenzisa umugqa wezinombolo kusuka ku 0 kuya -20 **Usebenzisa izinombolo zesikhundla ukuhlela, ukulandelana nangokwendawo** • Beka izinto emgqeni ngokulandelana kusukela kweyokuqala kuya kweyeshumi. Isib okokuqala, okwesibili, ikwesithathu,….okweshumi, okokugcina. • Ukuhlela izinombolo ngokwesikhundla ngokulandelana ukusuka kweyokuqala ukuya kweyeshumi.
UKUTHUTHUKISA ULWAZI LWEZINOMBOLO: Ubungako benani lenombolo				
1.5 **Ubungako benani lenombolo**			Ukubona ubungako benani lezinombolo usuka e-11 -kuya e-15. • Ukuhlakaza izinamba ezihamba ngambili uzise emashumini nasemiveni. Isib. 12 ungu 10 no 2	Ukubona ubungako benani lezinombolo usuka e-11 -kuya e-19 Ukuhlakaza izinombolo ezihamba ngambili uzise emashumini nasemiveni. Isib. 18 ungu 10 no 8

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
XAZULULA IZINKINGA ZEZIBALO ESIMWENI ESIJWAYELEKILE				
1.6 **Amasu okuxazulula izinkinga zezibalo**	Sebenzisa lamasu alandelayo ukuxazulula izinkinga zezibalo bese uchaza isisombululo kanje: • Sebenzisa izinsizakufunda eziphathekayo njengezinto zokubala. • Sebenzisa izithombe ukubonisa izibalo eziyingxoxo • Sebenzisa umugqa wezinombolo owakhiwe ngezinto eziphathekayo njengobuhlalu	Sebenzisa lamasu alandelayo ukuxazulula izinkinga zezibalo bese uchaza isisombululo kanje: • Sebenzisa izinsizakufunda eziphathekayo njengezinto zokubala • Sebenzisa izithombe ukubonisa izibalo eziyingxoxo • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili izinombolo • Sebenzisa umugqa wezinombolo owakhiwe ngezinto eziphathekayo njengobuhlalu	Sebenzisa lamaqhinga alandelayo ukuxazulula izinkinga zezibalo bese uchaza isisombululo kanje: • Sebenzisa izinsizakufunda eziphathekayo njengezinto zokubala • Sebenzisa izithombe ukubonisa izibalo eziyingxoxo • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili izinombolo • Sebenzisa umugqa wezinombolo owakhiwe ngezinto eziphathekayo njengobuhlalu	Sebenzisa lamaqhinga alandelayo ukuxazulula izinkinga zezibalo bese uchaza isisombululo kanje: • Sebenzisa izinsizakufunda eziphathekayo njengezinto zokubala • Sebenzisa izithombe ukubonisa izibalo eziyingxoxo • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili izinombolo • Sebenzisa umugqa wezinombolo owakhiwe ngezinto eziphathekayo njengobuhlalu
1.7 **Ukuhlanganisa nokususa**	Uxazulula izinkinga zezibalo eziyingxoxo ezisesimweni esijwayelekile bese uchaza isisombululo usebenzisa ukuhlanganisa, ukususa ezibalweni ezinika umphumela ofika esi -5.	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo usebenzisa ukuhlanganisa, ukususa ezibalweni ezinika umphumela ofika esi -10.	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo usebenzisa ukuhlanganisa, ukususa ezibalweni ezinika umphumela ofika esi -15	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo usebenzisa ukuhlanganisa, ukususa ezibalweni ezinika umphumela ofika esi -20
1.8 **Ukuhlanganisa okuphindayo okuholela ekuphindaphindeni**		Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo usebenzisa ukuhlanganisa okuphindayo ezibalweni ezinika umphumela ofika e -10.	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo usebenzisa ukuhlanganisa okuphindayo ezibalweni ezinika umphumela ofika e -15	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo usebenzisa ukuhlanganisa okuphindayo ezibalweni ezinika umphumela ofika e -20.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
1.9 **Ukwenza amaqoqo kanye nokuhlukaniselana okuholela ezibalweni zokuhlukanisa**	Uxazulula izinkinga zezibalo zamagama ezisezimweni ezijwayelekile bese bechaza isisombululo besebenzisa ukwenza amaqoqo nokuhlukaniselana ezinombolo eziphelele ezibalweni ezinemiphumela efika esi -5 ezingaba nezinsalela..	Uxazulula izinkinga zezibalo zamagama ezisezimweni ezijwayelekile bese bechaza isisombululo besebenzisa ukwenza amaqoqo nokuhlukaniselana ezinombolo eziphelele ezibalweni ezinemiphumela efika esi -10 ezingaba nezinsalela	Uxazulula izinkinga zezibalo zamagama ezisezimweni ezijwayelekile bese bechaza isisombululo besebenzisa ukwenza amaqoqo nokuhlukaniselana ezinombolo eziphelele ezibalweni ezinemiphumela efika esi -15 ezingaba nezinsalela..	Uxazulula izinkinga zezibalo zamagama ezisezimweni ezijwayelekile bese bechaza isisombululo besebenzisa ukwenza amaqoqo nokuhlukaniselana ezinombolo eziphelele ezibalweni ezinemiphumela efika esi -20 ezingaba nezinsalela
1.11 **Imali**		• Ukubona bese ukhomba imali yaseNingizimu Afrika ewuhlweza 5c, 10c, 20, 50c, R1, R2; R5 • Ukuxazulula izinkinga zemali ezifaka isamba noshintshi kuyofika ku R10 no 20c	• Ukubona bese ukhomba imali yaseNingizimu Afrika ewuhlweza 5c, 10c, 20, 50c, R1, R2; R5 • Ukuxazulula izinkinga zemali ezifaka isamba noshintshi kuyofika ku R20 no 20c	• Ukubona bese ukhomba imali yaseNingizimu Afrika - ewuhlweza 5c, 10c, 20, 50c, R1, R2; R5 - eyamaphepha R10 no R20 • Ukuxazulula izinkinga zemali ezifaka isamba noshintshi kuyofika ku R20 no 20c.
UKUBALA NGOKUKHULULEKA				
1.12 **Amasu** **(izindlela zokwenza noma amaqhinga)**	Sebenzisa amasu alandelayo uma ubala: • Izinsizakufunda eziphathekayo Isib. izinto zokubala • Dweba izithombe • Umugqa wezinombolo owenziwe izinto eziphathekayo njengobuhlalu.	Sebenzisa lamasu alandelayo uma ubala: • Sebenzisa izinsizakufunda eziphathekayo. Isib.izinto zokubala • Dweba izithombe • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili • Sebenzisa umugqa wezinombolo owakhiwe ngezinto eziphathekayo njengobuhlalu	Sebenzisa lamasu alandelayo uma ubala: • Sebenzisa izinsizakufunda eziphathekayo. Isib.izinto zokubala • Dweba izithombe • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili • Sebenzisa umugqa wezinombolo owakhiwe ngezinto eziphathekayo njengobuhlalu	Sebenzisa lamasu alandelayo uma ubala: • Sebenzisa izinsizakufunda eziphathekayo. Isib.izinto zokubala • Dweba izithombe • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili • Sebenzisa umugqa wezinombolo owakhiwe ngezinto eziphathekayo njengobuhlalu

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
1.13 **Ukuhlanganisa nokususa**	**Uhla lwezinombolo: 1 - 5** • Hlanganisa kuze kufike okuyi -5 • Susa kokuyi -5 • Enza uphindelela amabhondi kuze kufike kwinombolo yesi -5	**Uhla lwezinombolo: 1 - 10** • Hlanganisa kuyofika e- 10 • Susa koku -10 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Enza uphindelela amabhondi kuze kufike kwinombolo yesi - 7	**Uhla lwezinombolo: 1 - 15** • Hlanganisa kuyofika e- 15 • Susa koku -15 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Enza uphindelela amabhondi kuze kufike kwinombolo yesi - 9	**Uhla lwezinombolo: 1 - 20** • Hlanganisa kuyofika e- 20 • Susa koku -20 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Enza uphindelela amabhondi kuze kufike kwinombolo yesi - 10
1.14 **Ukuhlanganisa okuphindayo okuholela ezibalweni zokuphindaphinda**		• Izibalo zokuhlanganisa okuphindayo (ukuphinda inombolo efanayo) kuyofika e -10. • Sebenzisa izimpawu ezifanele (+, –, =, ☐)	• Izibalo zokuhlanganisa okuphindayo (ukuphinda inombolo efanayo) kuyofika e -15. • Sebenzisa izimpawu ezifanele (+, –, =, ☐)	• Izibalo zokuhlanganisa okuphindayo 9 ukuphinda inombolo) kuyofika e -20. • Sebenzisa izimpawu ezifanele (+, –, =, ☐)

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
1.16 **Izibalo Zekhanda**	**Ulwazi Lwezinombolo: Uhla olufinyelela esi -5** • Hlela iqoqo lezinombolo olunikiwe. • Qhathanisa izinombolo kusukela kweyo -1 kuya e -5,yisho ukuthi iyiphi encane noma enkulu ngokukodwa noma ngokubili.	**Ulwazi Lwezinombolo: Uhla olufinyelela esi -10** • Hlela iqoqo lezinombolo olunikiwe. • Qhathanisa izinombolo kusukela kweyo -1 kuya e -10,yisho ukuthi iyiphi encane noma enkulu ngokukodwa noma ngokubili.	**Ulwazi Lwezinombolo: Uhla olufinyelela esi -15** • Hlela iqoqo lezinombolo olunikiwe. • Qhathanisa izinombolo kusukela kweyo -1 kuya e -15,yisho ukuthi iyiphi encane noma enkulu ngokukodwa noma ngokubili. **Ukukhumbula okusheshayo:** • Amabhondi ezinombolo kuya e -5 • Khumbula izindlela zokuhlanganisa nokususa kuya e -5 **Amaqhinga okubala** Sebenzisa amaqhinga okuhlanganisa nokususa ngokugculisayo: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma uye emumva. • Umugqa wezinombolo • Ukuphinda kabili nokuhlukanisa kabili • Ukwakha nokuhlakaza inombolo	**Ulwazi Lwezinombolo: Uhla olufinyelela esi -20** • Hlela iqoqo lezinombolo olunikiwe. • Qhathanisa izinombolo kusukela kweyo -1 kuya e -20,yisho ukuthi iyiphi encane noma enkulu ngokukodwa noma ngokubili. **Ukukhumbula okusheshayo:** • Amabhondi kuya e -10 • Khumbula izindlela zokuhlanganisa nokususa kuya e -10 **Amaqhinga okubala** Sebenzisa amaqhinga okuhlanganisa nokususa ngokugculisayo: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma uye emumva. • Umugqa wezinombolo • Ukuphinda kabili nokuhlukanisa kabili • Ukwakha nokuhlakaza inombolo

Izinhlobo zezinkinga zezibalo: Ibanga 1

Lezi yizibonelo zezinhlobo zezinkinga ezibalulekile okufanele ukuthi uthisha azethule ngokuziphindaphinda ekilasni lakhe. Uma uthisha esebenza ngeqembu elincana, kufanele ayisho ngomlomo inkinga. Uma abafundi sebekwazi ukufunda, usengabanikeza izinkinga zezibalo ezibhalwe phansi, kodwa futhi ayisho inking ngomlomo.

Izinkinga ezisesimweni esejwayelekile zingafakwa encwadini yokusebenzela, kodwa kube kufishane, iqonde ngqo kube ejwayelekile, uthisha kufanele aqiniseke ukuthi bonke abafundi bayaziqonda lezinkinga.

Amaqoqo

Ukwenza amaqoqo, kulahlwa izinsalela

UNokwethaba uthengisa amahhabhula asezikhwameni ezinamahhabhula ngamathathu ngasinye. Unamahhabhula ayi - 14. Zingaki izikhwama ezinamahhabhula amathathu angazenza?

Ukwenza amaqoqo, kufakwa nezinsalela ezimpendulweni

USimanga ufuna ukunikeza ugogo wakhe ibhokisi lamaqanda ayi - 15. Mangaki amabhokisi azowadinga ukufaka amaqanda ayisithupha ibhokisi ngalinye?

Ukuhlukaniselana

Ukuhlukaniselana, kulahlwa insalela

Hlukanisa uswidi oyi - 14 kubafundi abathathu ukuze bonke bathole alinganayo.

Ukuhlanganisa okuphindayo

Mangaki amasondo emabhayisikilini amane?

Ukuhlanganisa nokususa

Kunezinhlobo eziyisisekelo okungenani ezintathu zokuhlanganisa nokususa, inhlobo ngayinye ingavezwa ngezindlela ezehlukene.

Izinhlobo eziyisisekelo:

Ushintshol ekubekeni inkinga

UNoluthando ubenamahhabhula amahlanu. USipho umuphe amanye ayisishiyagalombili. Mangaki amahhabhula kaNoluthando esewonke?

UNoluthando ubenamahhabhula ayi - 13, unikeze uSipho amahhabhula amahlanu. Mangaki amahhabhula asele nawo manje?

Hlanganisa

UNomfundo unomabuli abahlanu abaluhlaza kanye nabayisishiyagalombili ababomvu. Unomabuli abangaki sebebonke?

UNomfundo unomabuli abayi - 13. Abahlanu babo baluhlaza, bonke abanye babomvu. Bangaki omabuli ababomvu anabo?

Qhathanisa

UNomfundo unobhanana abayi - 13. UThemba unobhanana abahlanu. Bangaki obhanana uNoluthando anabo abangaphezulu kwabakaThemba?

Veza inkinga ngayinye ngezindlela ezahlukene

Izinkinga ingavezwa ngezindlela ezahlukene. Isibonelo, zombili lezizinkinga ezoshintsho, kodwa okungaziwa ku-sezindaweni ezahlukene.

- UNoluthando ubekade enamahhabhula. UThemba wamupha amanye ayisishiyagolombili. Manje usenamahhabhula ayi - 13. Ubekade enamahhabhula amangaki uNoluthando ekuqaleni?
- UNoluthando ubekade enamahhabhula amahlanu. UPhilasande wamupha amanye. Manje unamahhabhula ayi - 13. Mangaki amahhabhula amnike wona uPhilasande?

Izimo zezinkinga ezinobudlelwano obusebenzayo obehlukene

UNokwethaba uthengisa amawolintshi abiza amarandi amane (R4) lilinye. Yenza ithebula lokumsiza ukuthola inani lamaoda amakhulu.

Inani lamawolintshi	1	2	3	4	5	6	7
Inani ngokwamarandi	4	8					

Sebenzisa ithebula ukuthola inani lamawolintshi ayisi - 7

Lezizinhlobo zezinkinga zezenzelwe ukusiza uthisha. Abafundi akumele baxinwe ngamagama alezizinkinga. Khumbula ukuthi abafundi bajwayele ukusebenzisa izindlela ezahlukene zokuxazulula izinkinga okungenzeka kungabi yilokhu okulindelwe nguthisha.

ULWAZI JIKELELE LEBANGA 1 2. AMAPHETHINI, UBUDLELWANE NE-ALJEBHRA				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
2.1 **OKUSEjiyometri**	**Ukukopisha nokwandisa** Ukukopisha nokwandisa amaphethini alula usebenzisa: • Izinto eziphathekayo; • Izithombe (usebenzise imibala nezimo) **Isiphakamiso sokulandelanisa** Qala ukopishe bese wandisa amaphethini usebenzisa izinto eziphathekayo. Uma abafundi sebekwazi ukusebenzisa amakhrayoni namapensela, sebengaqala ukukopisha nokwandisa amaphethini ngokuwadweba.	**Ukukopisha, ukwandisa bese uchaza** Ukukopisha, ukwandisa bese uchaza ngamagama. • Amaphethini alula enziwe ngezinto eziphathekayo • Amaphethini alula enziwe ngokudweba imidwebo eyenziwe ngemigqa, ngezimo noma ngezinto eziphathekay **Akha uchaze amaphethini l akho** • Akha amaphethini akho asejiyometri - Usebenzisa izinto eziphathekayo - Ngokudweba imigqa, izimo noma izinto eziphathekayo • Chaza amaphethini akho.	**Ukukopisha, ukwandisa bese uchaza** Ukukopisha, ukwandisa bese uchaza ngamagama. • Amaphethini alula enziwe ngezinto eziphathekayo • Amaphethini alula enziwe ngokudweba imidwebo eyenziwe ngemigqa, ngezimo noma ngezinto eziphathekayo **Akha uchaze amaphethini l akho** • Akha amaphethini akho asejiyometri - Usebenzisa izinto eziphathekayo - Ngokudweba imigqa, izimo noma izinto eziphathekayo • Chaza amaphethini akho.	**Amaphethini asizungezile** Khomba, chaza nganagama bese ukopisha amaphethini asejiyometri • emvelo • awesimamje • nasemasikweni nasemagugwini ethu **Akha uchaze amaphethini akho** • Akha amaphethini akho asejiyometri - Usebenzisa izinto eziphathekayo - Ngokudweba imigqa, izimo noma izinto eziphathekayo • Chaza amaphethini akho.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
2.2 **AMAPHETHINI EZINOMBOLO**	**Ukukopisha, ukwandisa bese uchaza** Ukukopisha, ukwandisa nokuchaza ukulandela okulula kwezinombolo kuyofika kuma 20. Ukulandelana kwezinombolo kufanele kokhombise ukubala uya phambili nokubala uya emumva kanye: • Ngakunye usuka kunoma iyiphi inombolo phakathi kuka 1 kuya kuma -20	**Ukukopisha, ukwandisa bese uchaza** Ukukopisha, ukwandisa nokuchaza ukulandela okulula kwezinombolo kuyofika kuma 50 Ukulandelana kwezinombolo kufanele kokhombise ukubala uya phambili nokubala uya emumva kanye: • Ngaku 1 usuka kunoma iyiphi inombolo phakathi kuka 1 no 50 **Ubala uya phambili ngo:** • Ngama 10 kusuka kunoma iyiphi inombolo ephakathi,kuka 0 kuya ku 50 • Ngaku 5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya ku 50 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka o kuya ku 50 **Akha bese uchaza amaphethini akho** • Akha uchaze iphethini lakho lezinombolo	**Ukukopisha, ukwandisa bese uchaza** Ukukopisha, ukwandisa nokuchaza ukulandela okulula kwezinombolo kuyofika kuma 80 Ukulandelana kwezinombolo kufanele kokhombise ukubala uya phambili nokubala uya emumva kanye: • Ngaku 1 usuka kunoma iyiphi inombolo phakathi kuka 1 no 80 **Ubala uya phambili ngo:** • Ngama 10 kusuka kunoma iyiphi inombolo ephakathi,kuka 0 kuya ku 80 • Ngaku 5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya ku80 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka o kuya ku 80 **Akha bese uchaza amaphethini akho** • Akha uchaze iphethini lakho lezinombolo	**Ukukopisha, ukwandisa bese uchaza** Ukukopisha, ukwandisa nokuchaza ukulandela okulula kwezinombolo kuyofika kuma 100 Ukulandelana kwezinombolo kufanele kokhombise ukubala uya phambili nokubala uya emumva kanye: • Ngaku 1 usuka kunoma iyiphi inombolo phakathi kuka 1 no 100 **Ubala uya phambili ngo:** • Ngama10 kusuka kunoma iyiphi inombolo ephakathi,kuka 0 kuya ku 100 • Ngaku 5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya ku 100 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka o kuya ku 100 **Akhabese uchaza amaphethini akho** • Akha uchaze iphethini lakho lezinombolo

ULWAZI JIKELELE LEBANGA 1 3. INDAWO NEZIMO (IJIYOMETRI)				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
3.1 **Isikhundla, inkomba nokubukeka kwento**	**Ulimi olusho ukuthi into ikuphi** Chaza ukuthi into ikuphi uma uqhathanisa nenye. Isibonelo: phezu kwe, phambili kwe, emumva kwe, kwesobunxele, kwesokudla, phezulu, phansi, eduze kwe. **Indawo nezinkomba** • Landela izinkomba ukunyakaza ekilasini. • Landela imiyalelo ukubeka into uyiqhathanisa nenye. Isib. Faka ipensela phakathi ebhokisini **Iziphakamisozokugxilwa kukho ngokulandelana komsebenzi wethemu yokuqala** • Ulimi lwesikhundla kufanele lwethulwe ngemisebenzi lapho abafundi benyakazisa umzimba. • Lokhu kungahlanganiswa nangemisebenzi yokubhala efana nokudweba, ukufaka imibala noma ukuqondanisa amagama nezithombe. • Sebenzisa undile uma ulandela izinkomba. • Izinkomba zingenziwa ngokuphindelela ngokwenza imisenzi lapho abafundi benyakaza noma benyakazisa izinto ngokwemyalelo.			**Ulimi olusho ukuthi into ikuphi** Chaza ukuthi into ikuphi uma uqhathanisa nenye. Isibonelo: phezu kwe, phambili kwe, emumva kwe, kwesobunxele, kwesokudla, phezulu, phansi, eduze kwe. **Indawo nezinkomba** • Landela izinkomba ukunyakaza ekilasini. • Landela imiyalelo ukubeka into uyiqhathanisa nenye. Isib. Faka ipensela phakathi ebhokisini **Iziphakamisozokugxilwa kukho ngokulandelana komsebenzi wethemu 4** • Umsebenzi wesikhundla nezinkomba ungahlanganiswa ngokubhala njengokudweba, ukufaka imibala noma ukuqondanisa umdwebo negama. • Amanye amagama amasha esikhundla angathulwa ngemisebenzi efaka ukunyakaza kwabafundi. • Izinkomba zingenziwa ngokuphindelela ngokwenza imisenzi lapho abafundi benyakaza noma benyakazisa izinto ngokwemyalelo. **Isikhundla nokubukeka kwento** • Qondanisa ukubukeka kwento efanayo nsukuzonke.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
3.2 **Izinto ezinhlangoth-intathu**	**Uhla Lwezinto** Bona bese unika igama lezinto ezinhlangothi ntathu ezikhona ekilasini kanye nasezithombeni • Izinto eziyibhola • Izinto eziyibhokisi **Izimpawu zezinto** Chaza, uhlele bese uqhathanisa izinto ezinhlangothi ntathu ngokwe: • ngokobungako • ngokombala **Imisebenzi okugxilwa kuyo** Buka bese wakha izinto ozinikiwe ezinhlangothi ntathu usebenzisa izinto eziphathekayo njengamabhuloki nezinye izinto ezingabuye zisebenziseke., izinto zokwakha **Iziphakamiso zemisebenzi okugxilwe kuyo ngokulandelana eThemu 1:** • Imidlalo ekhululekile lapho kusethenziswa izinto ezinhlangothi ntathu. Ukwakha izinto ozithandayo usebenzisa amabhuloki,izinto zokwakha noma izinto ezingabuye zisebenziseke. Lokhu kungenziwa ngesikhathi sokusebenza ngokuzimela. • Kopisha isimo sento elethiwe uthisha.Lokhu kungenziwa ngesikhathi sokusebenza ngokuzimela.		**Uhla Lwezinto** Bona bese unika igama lezinto ezinhlangothi ntathu ezikhona ekilasini kanye nasezithombeni nasezithombeni • Izinto eziyibhola • Izinto eziyibhokisi **Izimpawu zezinto** Chaza, uhlele bese uqhathanisa izinto ezinhlangoth intathu ngokwe: • ngobungako • umbala • izinto ezigingqikayo • iznto ezishelelayo **Iziphakamiso zemisebenzi okugxilwe kuyo ngokulandelana eThemu 3:** • Sebenzisa izinto eziphathekayo ezinomumo webhola, namabhokisi ahlukene nokunye okunezimo eziyiprizimu kanxande noma eyekhiyubhu. Phenya ikuphi okukwazi ukugingqika, ukushelela kanye nongakubekwa phezulu kokunye. • Khomba bese uchaza izibalomdwebo kanye nezinye izinto bese usho ukthi zakheke njengebhola noma njengebhokisi. • Umsebenzi uphethwa ngomsebenzi obhalwayo.	**Uhla Lwezinto** Bona bese unika igama lezinto ezinhlangothi ntathu ezikhona ekilasini kanye nasezithombeni nasezithombeni • Izinto eziyibhola • Izinto eziyibhokisi **Izimpawu zezinto** Chaza, uhlele bese uqhathanisa izinto ezinhlangothi ntathu ngokwe: • ngobungako • umbala • izinto ezigingqikayo • iznto ezishelelayo **I Iziphakamiso zemisebenzi okugxilwe kuyo ngokulandelana eThemu 4:** Umsebenzi uphethwa ngomsebenzi obhalwayo.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
	• Qhathanisa ubungako bezinto ezifanayo e. g. isho ukuthi iliphi ibhola elikhulu • Khuluma bese uhlela izinto eziphathekayo ngokombala. • Khomba bese uchaze izibalomdwebo nezinye izinto usho ukuthi zimi njengebhola noma njengebhokisi. • Umsebenzi uphethwa ngomsebenzi obhalwayo.			
3.3 **IZIMO EZINHLANGOTHI MBILI 2-D**		**Uhla lwezimo** Bona bese usho amagama ezinto ezinhlangothi mbili: • indilinga • unxantathu • isikwele **Izimpawu zezimo** Chaza, hlela bese uqhathanise izimo ezinhlangothi mbili kanje: • ngobungako • ngombala • amacala aqondile • amacala ayizindilinga **Iziphakamiso zemisebenzi okugxilwe kuyo ngokulandelana eThemu 2** • Qala ngokudlala okukhululekile ngezimo ezahlukene okufaka ukwenza izithombe ngezimo eziyizibalo mdwebo ezisikiwe. Lokhu kungenziwa ngesikhathi sokusebenza ngokuzimela. Lokhu kungenzeka ngesikha sezifundo zamakhono empilo.		**Uhla lwezimo** Bona bese usho amagama ezinto ezinhlangothi mbili: • indilinga • unxantathu • isikwele **Izimpawu zezimo** Chaza, hlela bese uqhathanise izimo ezinhlangothi mbili kanje: • ngobungako • ngombala • amacala aqondile • amacala ayizindilinga **Iziphakamiso zemisebenzi okugxilwe kuyo ngokulandelana eThemu 4**

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
		• Kopisha isithombe esakhiwe ngesimo esiyisibalomdwebo. Lokhu kungenzeka ngesikhathi sokusebenza ngokuzimela. • Qhathanisa ubungako bezinto ezifanayo njengengezikwele zihlelwa kusukela kwesincane kuya kwesikhulu, bese usebenzisa ulimi lobungako ukuchaza izimo. • Xoxa ngemibala yezimo bese uhlela izimo ngemibala yazo. • Sebenzisa izindilinga, nezikwele eziwungako obungafani nonxantathu abayimo ezahlukene. Bahlele ngokuthi banamacala aqondile noma ayindilinga. • Hlela ubeke izimo ngamaqoqo njengonxantathu, izikwele, izindilinga. • Phetha lengxenye ngemisebenzi ebhalwayo.		• Sebenzisa izindilinga, izikwele nonxantathu bese ukuhlela ngokwamacala ayindilinga naqondile. • Hlela ubeke izimo ngamaqoqo njengonxantathu, izikwele, onxande noma izindilinga • Phetha lengxenye ngemisebenzi ebhalwayo.
3.4 **Okufana nse nxazombili**			**Okufana nse nxazombili** • Ukubona izinhlangothi ezimbili zomzimba wakho ezifanayo. • Ukubona bese udweba umugqa ohlukanisa kabili izimo ezinhlangothimbili nokungezona izibalomdwebo. **I Iziphakamiso zemisebenzi okugxilwe kuyo ngokulandelana eThemu 3** • Bheka imigqa ehlukanisa izinto kabili zifane nse • Imisebenzi yokubhala akufanele ibe “dweba ingxenye enye” kodwa kubekhona izibonelo lapho abafundi bedweba umugqa ohlukanisa kabili kufane nse.	**Okufana nse nxazombili** • Ukubona bese udweba umugqa ohlukanisa kabili izimo ezinhlangothimbili nokungezona izibalomdwebo. **Iziphakamiso zemisebenzi okugxilwe kuyo ngokulandelana eThemu 4** • Imisebenzi yokubhala kufanele ifake izibonelo lapho umugqa ohlukanisa kabili kufane ungabi osuka phezulu wehle kuphela.

ULWAZI JIKELELE LEBANGA 1 4. ISILINGANISO				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**TERM 3**	**TERM 4**
4.1 **ISIKHATHI**	**Ukudlula kwesikhathi** Khuluma ngokudlula kwesikhathi • Hlela izehlakalo ezejwayelekile ezenzeka ezimpilweni zabo. • Qhathanisa ubude besikhathi usebenzisa ulimi lwesikhathi njengokuthi isikhathi eside / esifushane, esisheshayo, esamba kancane • Landelanisa ukwenzeka kwezinto usebenzise amagama afana: izolo, namuhla, kusasa, **Ukusho isikhathi** • Chaza ukuthi izinto zenzeke nini usebenzisa amagama afana: ekuseni, ebusuku, ntambama, emva kwesikhathi, ngaphambi kwsikhathi • Isho ngokulandelana izinsuku zesinto nezinyanga zonyaka. • Faka izinsuku zokuzalwa zabafundi kwikhalenda.	Isikhathi siyafundwa ngenkathi yezifundo zekilasi	Isikhathi siyafundwa ngenkathi yezifundo zekilasi	Isikhathi siyafundwa ngenkathi yezifundo zekilasi.
4.2 **Ubude**	• **UKULINGANISE esingahlelekile** • Qhathanisa bese uhlela ubude, ukuphakama noma ububanzi bezinto ezimbili noma ngaphezulu ngokuzibeka enye eduze kwenye. • Sebenzisa amagama akhuluma ngokuqhathanisa njengikuthi: kude kune, kufushane kune, okude ngokuthe xaxa, okubanzi kune, • Qagela, linganisa, qhathanisa, hlela bese ubhala ubude usebenzisa ukukala okungenasilinganiso njengezandla, ubude bepensela, amagxathu, okokubala njll.		• **UKULINGANISE esingahlelekile** • Qagela,l inganisa, qhathanisa, hlela bese ubhala ubude usebenzisa ukukala okungenasilinganiso njengezandla, ubude bepensela, amagxathu, okokubala njll.	

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	TERM 3	TERM 4
4.3 **Isisindo**	• **UKULINGANISE esingahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala phansi isisindo usebenzisa isikali sokuzimelela kanye nokulinganisa okungenasi linganiso, njengebhuloki njll. • Sebenzisa amagama ukuqhathanisa izinto. Isibonelo kulula, kuyasinda, kulula kuna, kusinda kuna			• **UKULINGANISE esingahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala phansi isisindo usebenzisa isikali sokuzimelela kanye nokulinganisa okungenasi linganiso, njengebhuloki njll. • Sebenzisa amagama ukuqhathanisa izinto. Isibonelo kulula, kuyasinda, kulula kuna, kusinda kuna
4.4 **Umthamo/ okumumethwe**	• **Ukulimganisa okungahlelekile** • Qhathanisa bese uhlela inani loketshezi olusezitsheni ezimbili ezibekwe eduze nesinye. • Abafundi babheka ngokuthela esitsheni sesithathu	• **Ukulimganisa okungahlelekile** • Qhathanisa bese uhlela inani loketshezi olungena ezitsheni ezimbil uma zigcwele (umthamo). • Sebenzisa amagama ukuqhathanisa njengokuthi kuningi kuna, kugcwele, kuncane kuna, akunalutho • Qagela, linganisa, qhathanisa, uhlele bese ubhala umthamo wezitsha usebenzisa isilinganiso esingenasilinganiso Isib izipuni nezinkomishi.		• **Ukulimganisa okungahlelekile** • Qagela, linganisa, qhathanisa, uhlele bese ubhala umthamo wezitsha usebenzisa isilinganiso esingenasilinganiso Isib izipuni nezinkomishi.

ULWAZI JIKELELE LEBANGA 1 5. UKUQOKELELWA KOLWAZI				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
5.1 **Qoqa bese uhlela izinto eziphathekayo**	Qoqa bese uhlela izinto eziphathekayo ezisebenza nsukuzonke.	Qoqa bese uhlela izinto eziphathekayo ezisebenza nsukuzonke.		
5.2 **Okumele iqoqo lezinto eziphathekayo ezihlelekile**	Dweba isithombe sezinto esezihleliwe. • Chaza ukuthi amaqoqo ahlelwe kanjani Phendula imibuzo ngalokhu: - Zihlelwe kanjani izinto - Libukeka kanjani iqoqo elihleliwe	Dweba isithombe sezinto esezihleliwe. • Chaza ukuthi amaqoqo ahlelwe kanjani Phendula imibuzo ngalokhu: - Zihlelwe kanjani izinto - Libukeka kanjani iqoqo elihleliwe		
5.3 **Ukuxoxa nokubika ngeqoqo lezinto eziphathekayo ezihlelekile**	• Chaza iqoqo elihleliwe	• Chaza iqoqo elihleliwe		
5.4 **Qoqa bese uhlela ulwazi**			**Okunconywayo:** Ulwazi oluphelele lokwenza igrafu yezithombe yekilasi • Qoqa bese uhlela ulwazi - Izinto eziphathelene nekilasi noma nesikole - Izimpendulo zemibuzo ebuzwe uthisha. • Beka ulwazi kwigrafu yezithombe. • Phendula imibuzo ngolwazi lwegrafu yezithombe	
5.5 **Okumele ulwazi**				
5.6 **Hlaziya bese uyahumusha ulwazi**				Hlaziya ulwazi olukwigrafu olubekiwe. Okungenani abafundi abenze amagrfu ezithombe amabili

3.4.2 ULWAZI JIKELELE LEBANGA 2 NGETHEMU

ULWAZI JIKELELE LEBANGA 2 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANO BAZO				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: Bala usebenzisa izinombolo eziphelele				
1.1 **Bala izinto eziphathekayo**	• Bala ngokuyikho izinto ezisetshenziswa njalo okungenani kuye kufike e -100 • Qagela inombolo esondelela ngakhona yezinto ezingabhkwa ngokubala • Amaqhinga okubala ngamaqoqo kuyakhuthazwa.	• Bala ngokuyikho izinto ezisetshenziswa njalo okungenani kuye kufike e -150 • Qagela inombolo esondelela ngakhona yezinto ezingabhkwa ngokubala • Amaqhinga okubala ngamaqoqo kuyakhuthazwa.	• Bala ngokuyikho izinto ezisetshenziswa njalo okungenani kuye kufike e -180 • Qagela inombolo esondelela ngakhona yezinto ezingabhkwa ngokubala • Amaqhinga okubala ngamaqoqo kuyakhuthazwa.	• Bala ngokuyikho izinto ezisetshenziswa njalo okungenani kuye kufike e -200 • Qagela inombolo esondelela ngakhona yezinto ezingabhkwa ngokubala • Amaqhinga okubala ngamaqoqo kuyakhuthazwa.
1.2 **Bala uyephambili ubuye emumva**	**Bala uyephambili ubuye uye emumva kanje:** • Ngaku 1 kusukela kunoma iyiphi inombolo ephakathi kuka -0 ne -100 • Ngokuyi -10 kusukela kunoma iyiphi inombolo ephakathi 0 ne -100 • Ngokuyi -5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 ne 100 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 100	**Bala uyephambili ubuye uye emumva kanje:** • Ngaku 1 kusukela kunoma iyiphi inombolo ephakathi kuka -0 ne -150 • Ngokuyi -10 kusukela kunoma iyiphi inombolo ephakathi 0 ne -150 • Nokuyi -5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 ne 150 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 150 • Ngoku 3 usukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 99 • Ngoku4 kusukela kunoma iyiphi inombolo ephakathi kuka 0 okuya koku 100	**Bala uyephambili ubuye uye emumva kanje:** • Ngaku 1 kusukela kunoma iyiphi inombolo ephakathi kuka -0 ne -180 • Ngokuyi -10 kusukela kunoma iyiphi inombolo ephakathi 0 ne -180 • Nokuyi -5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 ne 180 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 180 • Ngoku 3 usukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 180 • Ngoku 4 kusukela kunoma iyiphi inombolo ephakathi kuka 0 okuya koku 180	**Bala uyephambili ubuye uye emumva kanje:** • Ngaku 1 kusukela kunoma iyiphi inombolo ephakathi kuka -0 ne -200 • Ngokuyi -10 kusukela kunoma iyiphi inombolo ephakathi 0 ne -200 • Nokuyi -5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 ne 200 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 200 • Ngoku 3 usukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 200 • Ngoku 4 kusukela kunoma iyiphi inombolo ephakathi kuka 0 okuya koku 200

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: Ukumela izinombolo eziphelele				
1.3 **Uphawu negama lenombolo**	**Khomba, ubone, bese ufunda izinombolo** • Khomba, ubone, bese ufunda izimpawu zezinombolo kusukela ku 0 kuya e 100 • Bhala uphawu lenombolo kusukela ku 0 kuya e 100 • Khomba, ubone, bese ufunda amagama ezinombolo kusuka ku 0 kuye ema 25 • Bhala amagama ezinombolo kusuka ku 0 kuye ema 25	**Khomba, ubone, bese ufunda izinombolo** • Khomba, ubone, bese ufunda izimpawu zezinombolo kusukela ku 0 kuya ema- 150 • Bhala uphawu lenombolo kusukela ku 0 kuya ema- 150 • Khomba, ubone, bese ufunda amagama ezinombolo kusuka ku 0 kuye ema -50 • Bhala amagama ezinombolo kusuka ku 0 kuye ema- 50	**Khomba, ubone, bese ufunda izinombolo** • Khomba, ubone, bese ufunda izimpawu zezinombolo kusukela ku 0 kuya ema- 180 • Bhala uphawu lenombolo kusukela ku 0 kuya ema- 180 • Khomba, ubone, bese ufunda amagama ezinombolo kusuka ku 0 kuye ema -75 • Bhala amagama ezinombolo kusuka ku 0 kuye ema 75	**Khomba, ubone, bese ufunda izinombolo** • Khomba, ubone, bese ufunda izimpawu zezinombolo kusukela ku 0 kuya e 200 • Bhala uphawu lenombolo kusukela ku 0 kuya e 200 • Khomba, ubone, bese ufunda amagama ezinombolo kusuka ku 0 kuye e100 • Bhala amagama ezinombolo kusuka ku 0 kuye e100
UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: Chaza, qhathanisa, bese uhlele izinombolo				
1.4 **Chaza, qhathanisa, bese uhlela izinombolo**	**Chaza, qhathanisa, bese uhlela izinombolo kuye kufike ema -25** • Qhathanisa izinombolo eziphelele usebenzise amagama njenga okuncane kuna, okukhulu kuna, kungaphezulu kunokunye, okungaphansi kunokunye, okulingana • Hlela izinombolo eziphelele kusukela kwencane kakhulu kuya kwenkulu kakhulu kanye nezinkulu kakhulu kuya kwezincane kakhulu.	**Chaza, qhathanisa, bese uhlela izinombolo kuye kufike ema -50** • Qhathanisa izinombolo eziphelele usebenzise amagama njenga okuncane kuna, okukhulu kuna, kungaphezulu kunokunye, okungaphansi kunokunye, okulingana • Hlela izinombolo eziphelele kusukela kwencane kakhulu kuya kwenkulu kakhulu kanye nezinkulu kakhulu kuya kwezincane kakhulu.	**Chaza, qhathanisa, bese uhlela izinombolo kuye kufike ema -75** • Qhathanisa izinombolo eziphelele usebenzise amagama njenga okuncane kuna, okukhulu kuna, kungaphezulu kunokunye, okungaphansi kunokunye, okulingana • Hlela izinombolo eziphelele kusukela kwencane kakhulu kuya kwenkulu kakhulu kanye nezinkulu kakhulu kuya kwezincane kakhulu. **Sebenzisa izinombolo zesikhundla ukukhombisa ukuhleleka kwezinombolo, ngokwesikhundla** • Beka izinto eziphathekayo ngokulandelana kusukela kweyokuqala kuya kweyamashumi amabili noma eyokuqala kuya kweyokugcina Isib eyokuqala, eyesibili, eyesithathu…eyeshumi.	**Chaza, qhathanisa, bese uhlela izinombolo kuye kufike ema -99** • Qhathanisa izinombolo eziphelele usebenzise amagama njenga okuncane kuna, okukhulu kuna, kungaphezulu kunokunye, okungaphansi kunokunye, okulingana • Hlela izinombolo eziphelele kusukela kwencane kakhulu kuya kwenkulu kakhulu kanye nezinkulu kakhulu kuya kwezincane kakhulu. **Sebenzisa izinombolo zesikhundla ukukhombisa ukuhleleka kwezinombolo, ngokwesikhundla** • Beka izinto eziphathekayo ngokulandelana kusukela kweyokuqala kuya kweyamashumi amabili noma eyokuqala kuya kweyokugcina Isib Eyokuqala, eyesibili, eyesithathu kuye kuyofika kweyamashumi amabili.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: Ubungako benani lenombolo				
1.5 **Ubungako benani lenombolo**	**Ukubona ubungako benombolo kusuka kwi -11 kuya kuma -25** • Hlakaza izinombolo ezihamba ngazimbili sizise kumashumi nemivo • Khomba bese usho ubungako benani benombolo ngayinye	**Ukubona ubungako benombolo kusuka kwi -11 kuya kuma -50** • Hlakaza izinombolo ezihamba ngazimbili sizise kumashumi nemivo • Khomba bese usho ubungako benani benombolo ngayinye	**Ukubona ubungako benombolo kusuka kwi -11 kuya kuma -75** • Hlakaza izinombolo ezihamba ngazimbili sizise kumashumi nemivo • Khomba bese usho ubungako benani benombolo ngayinye	**Ukubona ubungako benombolo kusuka kwi -11 kuya kuma -99** • Hlakaza izinombolo ezihamba ngazimbili sizise kumashumi nemivo • Khomba bese usho ubungako benani benombolo ngayinye
UKUXAZULULA IZINKINGA ZEZIBALO ESIMWENI ESIJWAYELEKILE				
1.6 **Amasu okuxazulula izinkinga zezibalo**	Sebenzisa lamasu alandelayo ukuxazulula izinkinga zezibalo bese uchaza isixazululo sakho: • Imidwebo noma izinto eziphathekayo Isib izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo osebenzisa izinto eziphathekayo	Sebenzisa lamasu alandelayo ukuxazulula izinkinga zezibalo bese uchaza isixazululo sakho: • Imidwebo noma izinto eziphathekayo Isib izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo osebenzisa izinto eziphathekayo	Sebenzisa lamasu alandelayo ukuxazulula izinkinga zezibalo bese uchaza isixazululo sakho: • Imidwebo noma izinto eziphathekayo Isib izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo.	Sebenzisa lamasu alandelayo ukuxazulula izinkinga zezibalo bese uchaza isixazululo sakho: • Imidwebo noma izinto eziphathekayo Isib izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo.
1.7 **Ukuhlanganisa nokususa**	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukuhlanganisa nokususa. Izimpendulo zibe nezisombululo ezifika kuma -20.	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukuhlanganisa nokususa. Izimpendulo zibe nezisombululo ezifika kuma -50.	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukuhlanganisa nokususa. Izimpendulo zibe nezisombululo ezifika kuma -75.	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukuhlanganisa nokususa. Izimpendulo zibe nezisombululo ezifika kuma -99.
1.8 **Ukuhlanganisa okuphindayo okuholela ezibalweni zokuphindaphinda**	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukuhlanganisa okuphindayo okuholela ezibalweni zokuphindaphinda. Izimpendulo zibe nesisombululo ezifika kuma -20.	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukuhlanganisa okuphindayo okuholela ezibalweni zokuphindaphinda. Izimpendulo zibe nesisombululo ezifika kuma -30.	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukuhlanganisa okuphindayo okuholela ezibalweni zokuphindaphinda. Izimpendulo zibe nesisombululo ezifika kuma -40.	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukuhlanganisa okuphindayo okuholela ezibalweni zokuphindaphinda. Izimpendulo zibe nesisombululo ezifika kuma -50.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
1.9 **Ukwenza amaqoqo nokuhlukaniselana okuholela ezibalweni zokuhlukanisa**	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukwabelana ngokulinganayo nokwenza amaqoqo ukufika kuma 20. Izimpendulo ezingafaka izinsalela.	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukwabelana ngokulinganayo nokwenza amaqoqo ukufika kuma 30. Izimpendulo ezingafaka izinsalela.	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukwabelana ngokulinganayo nokwenza amaqoqo ukufika kuma 40. Izimpendulo ezingafaka izinsalela.	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukwabelana ngokulinganayo nokwenza amaqoqo ukufika kuma 50. Izimpendulo ezifaka izinsalela.
1.10 **Ukuhlukanisa okuholela emaqhezwini**		Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isisombululo ngokusebenzisa ukwabelana ngokulingana okuholela kuzisombululo ezifaka ingxenye eyodwa yeqhezu.Isibonelo $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$ njll	Xazulula izinkinga zezibalo zamagama esimweni esjwayelekile bese uchaza isisombululo ngokusebenzisa ukwabelana okuholela kuzisombululo ezifaka ingxenye eyodwa yeqhezu.Isibonelo $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$ njll	Xazulula izinkinga zezibalo zamagama esimweni esjwayelekile bese uchaza isisombululo ngokusebenzisa ukwabelana okuholela kuzisombululo ezifaka ingxenye eyodwa yeqhezu.Isibonelo $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$ njll
1.11 **Imali**	• Ukubona bese ukhomba imli yaseNingizimu Afrika ewuhlweza 5c, 10c, 20c, 50c, R1, R2, R5, neyamaphepha R10, R20, R50 • Xazulula izinkinga zezimali eziyisamba noshinntshi ongamasenti ogcina ku 50c, namarandi agcina ku R20.	• Ukubona bese ukhomba imli yaseNingizimu Afrika ewuhlweza 5c, 10c, 20c, 50c, R1, R2, R5, neyamaphepha R10, R20, R50 • Xazulula izinkinga zezimali eziyisamba noshinntshi ongamasenti ogcina ku 50c, namarandi agcina ku R50.	• Ukubona bese ukhomba imli yaseNingizimu Afrika ewuhlweza 5c, 10c, 20c, 50c, R1, R2, R5, neyamaphepha R10, R20, R50 • Xazulula izinkinga zezimali eziyisamba noshinntshi ongamasenti ogcina ku 75c, namarandi agcina ku R75.	• Ukubona bese ukhomba imli yaseNingizimu Afrika ewuhlweza 5c, 10c, 20c, 50c, R1, R2, R5, neyamaphepha R10, R20, R50 • Xazulula izinkinga zezimali eziyisamba noshinntshi ongamasenti ogcina ku 90c, namarandi agcina ku R99.
UKUBALA ESIMWENI ESIKHULULEKILE				
1.12 **Amasu** **(izindlela noma amaqhimga)**	Ukusebenzisa amsu alandelayo uma uhlanganisa: • Ukudweba noma ukusebenzisa izinto eziphathekayo.Isib izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo owenziwe izinto eziphathekayo	Ukusebenzisa amasu alandelayo uma uhlanganisa: • Ukudweba noma ukusebenzisa izinto eziphathekayo. Isib izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo owenziwe izinto eziphathekayo	Ukusebenzisa amasu alandelayo uma uhlanganisa: • Ukudweba noma ukusebenzisa izinto eziphathekayo.Isib izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo	Ukusebenzisa amasu alandelayo uma uhlanganisa: • Ukudweba noma ukusebenzisa izinto eziphathekayo. Isib izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
1.13 **Ukuhlanganisa nokususa**	• Izibalo zokuhlanganisa ukuyofika ema 20 • Izibalo zokususa besukela kuma 20 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Enza uphindelela amabhondi ezinombolo kuyofika e 10	• Izibalo zokuhlanganisa ukuyofika ema 50 • Izibalo zokususa besukela kuma 50 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Enza uphindelela amabhondi ezinombolo kuyofika e 15	• Izibalo zokuhlanganisa ukuyofika ema 75 • Izibalo zokususa besukela kuma 75 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Enza uphindelela amabhondi ezinombolo kuyofika ema 20	• Izibalo zokuhlanganisa ukuyofika ema 99 • Izibalo zokususa besukela kuma 99 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Enza uphindelela amabhondi ezinombolo kuyofika ema 20
1.14 **Ukuhlanganisa okuphindayo okuholela ezibalweni zokuphindaphinda**	• Hlanganisa izinombolo ezifanayo ngokuphindayo kufika kuma 20 • Phindaphinda izinombolo ngoku 2 kusukela ku 1 kuya e 10 • Sebenzisa izimpawu ezifanele (+, x, =, ☐)	• Phindaphinda izinombolo ngo 2 kanye no 5 kusukela ku 1kuya e 10 • Sebenzisa izimpawu ezifanele (+, x, =, ☐)	• Phindaphinda izinombolo ngo 2 u 5 kanye no 4 kusukela ku 1kuya e 10 • Sebenzisa izimpawu ezifanele (+, x, =, ☐)	• Phindaphinda izinombolo ngo 2, u 5, u3 kanye no 4 kusukela ku 1kuya e 10 • Sebenzisa izimpawu ezifanele (+, x, =, ☐)
1.16 **Izibalo zekhanda**	**Ulwazi Lwezinombolo: Uhla Lwezinombolo kufinyelela ku 25** • Hlela iqoqo lezinombolo ozinikiwe. • Qhathanisa izinombolo kuya kuma -25 usho ukuthi iyiphi: - Eningi noma encane ngoku 1 - Eningi noma encane ngoku 2 - Eningi noma encane nge 10 **Khumbula ngokushesha:** • Khumbula izindlela zokuhlanganisa nokususa kuyofinyelela e10	**Ulwazi Lwezinombolo: Uhla Lwezinombolo kufinyelela ku 50** • Hlela iqoqo lezinombolo. • Qhathanisa izinombolo kuya kuma -50 usho ukuthi iyiphi: - Eningi noma encane ngoku 1 - Eningi noma encane ngoku 2 - Eningi noma encane ngoku 3 - Eningi noma encane ngoku 4 - Eningi noma encane ngoku 5 - Eningi noma encane nge 10 **Khumbula ngokushesha:** • Khumbula izindlela zokuhlanganisa nokususa kuyofinyelela e10	**Ulwazi Lwezinombolo: Uhla Lwezinombolo kufinyelela ku 75** • Hlela iqoqo lezinombolo. • Qhathanisa izinombolo kuya kuma -75 usho ukuthi iyiphi: - Eningi noma encane ngoku 1 - Eningi noma encane ngoku 2 - Eningi noma encane ngoku 3 - Eningi noma encane ngoku 4 - Eningi noma encane ngoku 5 - Eningi noma encane nge 10 **Khumbula ngokushesha:** • Khumbula izindlela zokuhlanganisa nokususa kuyofinyelela e15 • Ukuhlanganisa noma ususe okubalwa ngamashumi kusukela ku 0 kuya ema 50	**Ulwazi Lwezinombolo: Uhla Lwezinombolo kufinyelela ku 99** • Hlela iqoqo lezinombolo. • Qhathanisa izinombolo kuya kuma -99 usho ukuthi iyiphi: - Ening noma encane ngoku 1 - Eningi noma encane ngoku 2 - Eningi noma encane ngoku 3 - Eningi noma encane ngoku 4 - Eningi noma nvane ngoku 5 - Eningi noma encane nge 10 **Khumbula ngokushesha:** • Khumbula izindlela zokuhlanganisa nokususa kuyofinyelela e15 • Ukuhlanganisa noma ususe okubalwa ngamashumi kusukela ku 0 kuya ema 50

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
1.16 **Izibalo zekhanda**	**Amaqhinga okuhlanganisa:** Sebenzisa amaqhinga okuhlanganisa nokususa ngendlela efanele: • Beka inombolo enkulu kuqala ukuze ubale uye phambili noma emumva. • Umugqa wezinombolo • Phinda kabili ubuye uhlukanise kabili • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa	**Amaqhinga okuhlanganisa:** Sebenzisa amaqhinga okuhlanganisa nokususa ngendlela efanele: • Beka inombolo enkulu kuqala ukuze ubale uye phambili noma emumva. • Umugqa wezinombolo • Phinda kabili ubuye uhlukanise kabili • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa	**Amaqhinga okuhlanganisa:** Sebenzisa amaqhinga okuhlanganisa nokususa ngendlela efanele: • Beka inombolo enkulu kuqala ukuze ubale uye phambili noma emumva. • Umugqa wezinombolo • Phinda kabili ubuye uhlukanise kabili • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa	**Amaqhinga okuhlanganisa:** Sebenzisa amaqhinga okuhlanganisa nokususa ngendlela efanele: • Beka inombolo enkulu kuqala ukuze ubale uye phambili noma emumva. • Umugqa wezinombolo • Phinda kabili ubuye uhlukanise kabili • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa
1.17 **Amaqhezu**		• Sebenzisa ubuye unike amagama amaqhezu njengo: uhhafu, ikota, okukodwa kokuthathu, nokukodwa kokuhlanu • Bona amaqhezu asemidwebeni • Bhala amaqhezu njenge okukodwa kokubili, okubili kokuthathu.	• Sebenzisa ubuye unike amagama amaqhezu njengo: uhhafu, ikota, okukodwa kokuthathu, nokukodwa kokuhlanu • Bona amaqhezu asemidwebeni • Bhala amaqhezu njenge okukodwa kokubili, okubili kokuthathu.	• Sebenzisa ubuye unike amagama amaqhezu njengo: uhhafu, ikota, okukodwa kokuthathu, nokukodwa kokuhlanu • Bona amaqhezu asemidwebeni • Bhala amaqhezu njenge okukodwa kokubili, okubili kokuthathu.

Izinhlobo zezinkinga zebanga lesi - 2

Lezi yizibonelo zezinhlobo zezinkinga ezibalulekile okufanele ukuthi uthisha azethule ngokuziphinda ekilasni. Uma uthisha esebenza ngamaqoqo amancane, kufanele ayisho ngomlomo inkinga. Uma abafundi sebekwazi ukufunda, usengabanikeza izinkinga zezibalo ezibhalwe phansi, kodwa futhi akayisho inkinga ngomlomo.

Izinkinga ezisesimweni esejwayelekile zingafakwa ephepheni lokusebenzela, kodwa kube kufishane, iqonde ngqo kube ejwayelekile, uthisha kufanele aqiniseke ukuthi bonke abafundi bayaziqonda lezizinkinga.

Amaqoqo

Ukwenza amaqoqo, kulahlwa izinsalela

UPhilasande uthengisa amahhabhula asezikhwameni, isikhwama ngasinye siphethe amahhabhula ayi - 10. Un-amahhabhula angama - 81. Zingaki izikhwama zamahhabhula angazenza ngamahhabhula angama - 81?

Ukwenza amaqoqo, ukufakwa nezinsalela ezimpendulweni

Umlimi unamaqanda angama - 47. Mangaki amabhokisi amaqanda azowadinga uma ibhokisi ngalinye lifaka amaqanda ayi - 6?

Ukuhlukanisa

Ukuhlukanisa, kulahlwa insalela

Hlukanisa ngokulinganayo uswidi ongama - 54 phakathi kwabangane abayisikhombisa.

Ukuhlukanisa, okuholela emaqhezwini

Hlukanisa amawolintshi ayi - 11 phakathi kwabangani ezine ukuze bonke bathole amawolintshi ngokulinganayo kungasali lutho.

Iqhezu lokuqoqelwe ndawonye

Ugogo unikeze uNobuhle amawolintshi ayi - 12. UNobuhle wenza ujusi ngoku - 1/3 kwamawolintshi. Mangaki amawolintshi awasebenzisile?

Loluhlobo lwezinkinga kufanele luvezwe kuphela uma abafundi sebexazulule izinkinga ezine noma ezinhlanu zokuhlukaniselana, kuholela kwizinhlobo zamaqhezu kanye nokwazi amagama ezingcezu zamaqhezu.

Ukubekwa kwamaqhezu ndawonye

Umqeqeshi webhola lomnqakiswano unikeza abadlali abayi - 14 uhhafu wewolintshi umdlali ngamunye. Udinga amawolintshi amangaki?

Loluhlobo lwezinkinga kufanele luvezwe kuphela uma abafundi sebexazulule izinkinga ezine noma ezinhlanu zokuhlukaniselana, kuholela kwizinhlobo zamaqhezu kanye nokwazi amagama ezingcezu zamaqhezu.

Ukuhlanganisa okuphindayo

Mangaki amasondo kumabhayisikili angama - 20?

Izinga

UThami uhamba amabhuloki ayisithupha ngelanga. Uhamba amabhuloki amangaki ngesonto?

Igridi

Ubaba uKhumalo utshala imigqa eyi - 7 yamaklabishi. Umugqa ngamunye unamaklabishi ayisi - 8. Mangaki amaklabishi esewonke?

Ukuhlanganisa nokususa

Kunezinhlobo okungenani ezintathu eziyisisekelo zezinkinga zokuhlanganisa nokususa, uhlobo ngalunye lungavezwa ngezindlela ezahlukene. Izinhlobo eziyisisekelo:

Ushintshol ekubekeni inkinga

UNoluthando unamahhabhula angama - 25. USiphlo umuphe amanye ayi - 18. Mangaki amahhabhula kaNoluthando esewonke?

UNoluthando unamahhabhula angama - 53, unikeza uSipho amahhabhula angama - 32. Mangaki amahhabhula asele nawo?

Hlanganisa

Ibanga lesi - 2 linonxantathu abangama - 37 abaluhlaza kanye nabayi - 19 ababomvu. Bangaki onxantathu sebebonke?

Kunezindilinga ezingama - 63; ezingama - 27 ziluhlaza, bese kuthi zonke ezinye zibebomvu. Zingaki izindilinga ezibomvu?

Qhathanisa

UNomfundo unobhanana abayi - 13. UThemba unobhanana abahlanu. Bangaki obhanana uNoluthando anabo abangaphezulu kwabakaThemba?

Veza inkinga ngayinye ngezindlela ezahlukene

Izinkinga zingavezwa ngezindlela ezahlukene. Isibonelo, zombili lezizinkinga ezoshintsho, kodwa okungaziwa kusezindaweni ezahlukene.

UNoluthando ubekade enamahhabhula. UThemba wamupha amanye ayi - 18, manje usenamahhabhula angama - 43. Ubekade enamahhabhula amangaki uNoluthando ekuqaleni?

UNoluthando ubekade enamahhabhula angama - 25. UPhilasande wamupha amanye. Manje unamahhabhula angama - 43. Mangaki amahhabhula amnike wona uPhilasande?

Izimo zezinkinga ezinobudlelwano obusebenzayo obehlukene

UNokwethaba uthengisa amawolintshi abiza amarandi amane (R4) lilinye. Yenza ithebula lokumsiza ukuthola inani lama oda amakhulu.

Inani lamawolintshi	1	2	3	4	5	6	7	8	9	10
Inani ngokwamarandi	4	8								

Sebenzisa lelithebula ukuthola inani lamawolintshi ayisi - 7 kanye nayi - 15.

UNomusa ugada ingane. Ubiza amarandi angama - 20 imali yokuhamba, kube amarandi ama 5 ngehora ukugada ingane. Qedela lelithebula lakhe.

Inani lamahora	1	2	3	4	5	10
Inani ngokwamarandi (R)	25	30				

Qaphela ukuthi izinkinga zikaNokwethaba noNomusa zisebenza ngokungafani.

Lezizinhlobo zezinkinga zezenzelwe ukusiza uthisha. Abafundi akumele baxinwe ngalezizinkinga. Khumbula ukuthi abafundi bajwayele ukusebenzisa izindlela ezahlukene zokuxazulula izinkinga okungenzeka kungabi yilokhu okulindelwe nguthisha. Isibonelo,inkinga yokuhlukanisa ingaxazululwa ngokususa okuphindayo,ukuhlanganisa noma ngokuphindaphinda. Izindlela ezisetshenziswa abafundi zingashintsha ngokuqhubeka konyaka ngokukhula kolwazi nokujwayela izinhlobo zezinkinga,nokukhula kolwazi lwazi lwabo lwezinombolo.

ULWAZI JIKELELE LEBANGA 2 2. AMAPHETHINI, UBUDLELWANE NE - ALJIBHRA				
ISIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
2.1 **Okusejiyometri**	**Kopisha, wandise bese uchaza.** Kopisha, wandisa bese uchaza usebenzisa amagama • Amaphethini alula enziwe izinto eziphathekayo • Amaphethini alula enziwe ngemidwebo, izimo noma izinto eziphathekayo. **Uhla lwamaphethini:** Amaphethini alula anezimo noma amaqoqo ezimo aphindaphindayo ngendlela efanayo. **Akha bese uchaza amaphethini akho:** • Akha amaphethini akho okusamdwebo - Usebenzisa izinto eziphathekayo - Ngokudweba imigqa, izimo noma izinto eziphathekayo • Chaza amaphethini akho	**Kopisha, wandise bese uchaza.** Kopisha, wandisa bese uchaza usebenzisa amagama • Amaphethini alula enziwe izinto eziphathekayo • Amaphethini alula enziwe ngemidwebo, izimo noma izinto eziphathekayo. **Uhla lwamaphethini**: Amaphethini alula anezimo noma amaqoqo ezimo aphindaphindayo ngendlela efanayo. Amaphethini lapho inani noma ubungako bezimo buyashintsha ngendlela engaqageleka okusho ukuthi amaphethini aya ngokukhula. **Akha bese uchaza amaphethini akho:** • Akha amaphethini akho okusamdwebo - Usebenzisa izinto eziphathekayo - Ngokudweba imigqa, izimo noma izinto eziphathekayo • Chaza amaphethini akho	**Kopisha, wandise bese uchaza.** Kopisha, wandisa bese uchaza usebenzisa amagama • Amaphethini alula enziwe izinto eziphathekayo • Amaphethini alula enziwe ngemidwebo, izimo noma izinto eziphathekayo. **Uhla lwamaphethini**: Amaphethini lapho inani noma ubungako bezimo buyashintsha ngendlela engaqageleka okusho ukuthi amaphethini aya ngokukhula. **Akha bese uchaza amaphethini akho:** • Akha amaphethini akho okusamdwebo - Usebenzisa izinto eziphathekayo - Ngokudweba imigqa, izimo noma izinto eziphathekayo • Chaza amaphethini akho	**Amaphethini asizungezile** Bona,chaza ngamagama bese ukopisha amaphethini okusazbalomdwebo • Emvelweni • Empilweni yesimanje • emasikweni nasemagugwini ethu

ISIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
2.2 **Amaphethini ezinombolo**	**Kopisha, wandisa bese uchaza.** Kopisha, wandise bese uchaza ukulandelana kwezinombolo ezilulakuya e 100. Ukulandelana kwezinombolo kufanele ukhombise ukubala uya phambili ubuye uye emumva kanje: • Ngaku 1kusukela kunoma iyiphi in-ombolo ephakathi kuka -0 ne -100 • Ngokuyi -10 kusukela kunoma iy-iphi inombolo ephakathi 0 ne -100 • Nokuyi - 5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 ne 100 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 100	**Kopisha,wandise bese uchaza.** Kopisha, w andise bese uchaza ukulandelana kwezinombolo ezilulakuya e 150. Ukulandelana kwezinombolo kufanele kukhombise ukubala uya phambili ubuye uhlehle kanje: • Ngaku 1 kusukela kunoma iyiphi inombolo ephakathi kuka -0 ne -150 • Ngokuyi -10 kusukela kunoma iy-iphi inombolo ephakathi 0 ne -150 • Nokuyi - 5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 ne 150 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 150 • Ngoku 3 usukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 150 • Ngoku 4 kusukela kunoma iyiphi inombolo ephakathi kuka okuya koku 150	**Kopisha,wandise bese uchaza.** Kopisha, w andise bese uchaza ukulandelana kwezinombolo ezilulakuya e 180. Ukulandelana kwezinombolo kufanele kukhombise ukubala uya phambili ubuye uhlehle kanje: • Ngaku 1 kusukela kunoma iyiphi inombolo ephakathi kuka -0 ne -180 • Ngokuyi -10 kusukela kunoma iy-iphi inombolo ephakathi 0 ne -180 • Nokuyi - 5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 ne 180 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 180 • Ngoku 3 usukela kunoma iyiphi inombolo ephakathi kuka 0 kuya koku 180 • Ngoku 4 kusukela kunoma iyiphi inombolo ephakathi kuka okuya koku 180 **Akha eyakho iphethini lezinombolo**	**Kopisha,wandise bese uchaza.** Kopisha, w andise bese uchaza ukulandelana kwezinombolo ezilulakuya e 200. Ukulandelana kwezinombolo kufanele kukhombise ukubala uya phambili ubuye uhlehle kanje: • Ngaku 1 kusukela kunoma iyiphi inombolo ephakathi kuka -0 nama-200 • Ngokuyi -10 kusukela kunoma iyiphi inombolo ephakathi 0 nama -200 • Nokuyi - 5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 nama200 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka 0 nama 200 • Ngoku 3 usukela kunoma iyiphi in-ombolo ephakathi kuka 0 nama200 • Ngoku 4 kusukela kunoma iyiphi inombolo ephakathi kuka 0 nama 200 **Akha eyakho iphethini lezinombolo**

ULWAZI JIKELELE LEBANGA 2 3. INDAWO NEZIMO (IJIYOMETRI)				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
3.1 **Isikhundla, inkomba nokubukeka kwento**		**Ulimi lwesikhundla** • Chaza ukuthi into ikuphi uma uqhathanisa nenye. Isibonelo phezu kwe, phambili kwe, emumva kwe,kwesobunxele, kwesokudla, phezulu, phansi, eduze kwe. **Indawo nezinkomba** • Landela izinkomba ukunyakaza ekilasini.	**Isikhundla nokubukeka kwento** • Qondanisa ukubukeka okwehlukene kwento eyodwa yazozonke izinsuku. **Indawo nezinkomba** • Landela izinkomba ukunyakaza ekilasini.	
3.2 **Izinto ezinhlangothintathu** **3-D**	**Uhla lwezinto eziphathekayo** Bona bese usho izinto eziphathekayo ezinhlangothintathu ezithombeni nezisekilasini. Izimo zamabhola (imbulunga) • okusabhola Izimo zamabhokisi (iphirizimu) • okusabhokisi **izimpawu zezinto** Chaza, hlela bese uqhathanisa izinto ezinhlangothintathu ngoku: • ubungako • izinto ezigingqikayo • izinto ezishibilikayo **imisebenzi okugxilwe kuyo** • Buka bese wakha izinto ezinhlangothintathu usebenzisa izinto eziphathekayo njengezimo ezinhlangothimbili, amabhuloki, nezinye izinto ongabuye uzisebenzise, izinto zokwakha kanye nezinto ezinhlangothi ntathu.		**Uhla lwezinto eziphathekayo** Bona bese usho izinto eziphathekayo ezinhlangothintathu ezithombeni nezisekilasini. • okusabhola • okusabhokisi • isilinda **izimpawu zezinto** Chaza, hlela bese uqhathanisa izinto ezinhlangothintathu ngoku:: • ubungako • izinto ezigingqikayo • izinto ezishibilikayo	**Uhla lwezinto eziphathekayo** Bona bese usho izinto eziphathekayo ezinhlangothintathu ezithombeni nezisekilasini. • okusabhola • okusabhokisi • isilinda **izimpawu zezinto** Chaza, hlela bese uqhathanisa izinto ezinhlangothintathu ngoku:: • ubungako • izinto ezigingqikayo • izinto ezishibilikayo

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
3.2 **Izinto ezinhlangoth-intathu** **3-D**	**Iziphakamiso zomsebenzi okuzogxilwa kuwo nokulandelana kwemisebenzi ku themu 1** • Kopisha isimo sento oyinikwe uthisha. Isimo sento singenziwa ngamabhuloki, izinto ongabuye uzisebenzise, izinto zokwakha, ezinye izinto ezinhlangothi ntathu 3-D, nokunye okuyizimo ezinhlangothi mbili 2-D ezisikiwe. Lokhu kungenziwa ngesikhathi sokusebenza ngokuzimela • Qhathanisa bese uchaza ubungako bezinto ezifanayo kusukela kwenkulu kuya kwencane. Isibonelo, beka amabhokisi kusuka kwelikhulu kuya kwelincane. Sebenzisa: • Amabhola kanye nezinto ezinesimo samabhola. • Amabhokisi ahlukene nezinye izinto njengamaprizimu awunxande noma amakhiyubhu. Phenya ukuthi iziphi izinto ezikwazi ukugingqika, ezishelelayo nezingabekwa phezulu kwenye.. Khomba bese uchaza okuzibalomdwebo nezinto zansuku zonke ngokusho ukuthi zakhiwe njengebhola, njengebhokisi noma isilinda. Phetha lengxenye yomsebenzi ngokunika umsebenzi wokubhala.		**Iziphakamiso zomsebenzi okuzogxilwa kuwo nokulandelana kwemisebenzi ku themu 3** Sebenzisa: • Amabhola kanye nezinto ezinesimo samabhola. • Amabhokisi ahlukene nezinye izinto njengamaprizimu awunxande noma amakhiyubhu. Phenya ukuthi iziphi izinto ezikwazi ukugingqika, ezishelelayo nezingabekwa phezulu kwenye.. Khomba bese uchaza okuzibalomdwebo nezinto zansuku zonke ngokusho ukuthi zakhiwe njengebhola, njengebhokisi noma isilinda. Phetha lengxenye yomsebenzi ngokunika umsebenzi wokubhala.	**Iziphakamiso okuzogxilwa kuzo kwi themu 4** Phetha lengxenje yomsebenzi ngokunika umsebenzi wokubhala

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
3.3 **Izimo ezinhlangothimbili** **2-D**		**Uhla Lwezimo** Bona bese usho igama lezimo ezinhlangothimbili • indilinga • unxantathu • isikwele • unxande **Izimpawu zezimo** Chaza, hlela bese uqhathanisa izimo ezinhlangothimbili ngokwe: • ubungako • umbala • ngokwesimo • izinhlangothi eziqondile • izinhlangothi eziyindilinga		**Uhla Lwezimo** Bona bese usho igama lezimo ezinhlangothimbili • indilinga • unxantathu • isikwele • unxande **Izimpawu zezimo** Chaza, hlela bese uqhathanisa izimo ezinhlangothimbili ngokwe: • ubungako • umbala • ngokwesimo • izinhlangothi eziqondile • izinhlangothi eziyindilinga

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
3.3 **Izimo ezinhlangothimbili** **2-D**		**Ukulandelana komsebenzi okuzogxilwa kuwo kwi themu 2** • Dlala ngokukhululekile usebenzisa izimo ezahlukene kanye nokwakha izithombe ngezimo eziyizibalo mdwebo.Lokhu kungenziwa ngesikhathi sokudlala ngokukhululekile. • Kopisha esenziwe izimo eziyizibalo mdwebo.Lokhu kungenziwa ngezikhathi zokudlala ngokukhululekile. • Qhathanisa ubungako bezimo ezifanayo isib. Hlela onxande kusukela komncane kakhulu kuya komkhulu kakhulu usebenzisa ulimi lobungako ukuchaza izimo. • Xoxa ngemibala yezimo bese uhlela izimo ngemibala. • Hlela izimo ngokuthi zinamacala aqondilie noma ayindilinga. sebenzisa izindilinga nezikwele ezinobumo obuhlukene nonxande nonxantathu abanezimo ezihlukene. • Hlela bese wenza amaqoqo ezimo ngokuthi angonxantathu, izikwele, unxande noma izindilinga. • Phetha lengxenye ngemisebenzi ebhalwayo.		**Ukulandelana komsebenzi okuzogxilwa kuwo kwi themu 4** • Hlela izimo ngokuthi zinamacala aqondilie noma ayindilinga. sebenzisa izindilinga nezikwele ezinobumo obuhlukene nonxande nonxantathu abanezimo ezihlukene. • Abafundi bahlela bese benza amaqoqo ezimo ngokuthi ziwo nxantathu, izikwele, onxande noma izindilinga. • Phetha lengxenye ngemisebenzi ebhalwayo.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
3.4 **Okufana nse nxazombili**		**Okufana nse nxazombili** Bona bese udweba umugqa ohlukanisa kabili kufane nse nxazombili 2-D kwizimo ezinhlangothimbili eziyizibalomdwebo nezingeziyizo izibalomdwebo. **Ukulandelana komsebenzi okuzogxilwa kuwo kwi themu 2** • Dweba imigqa ehlukanisanisa kabili kufane nse izinto eziphathekayo nezithombe. • Imisebenzi ebhalwayo kufanele ifake nezibonelo lapho umugqa ohlukanisa kabili **ungasuki** phezulu uya phansi kuphela.		**Okufana nse nxazombili** Bona bese udweba umugqa ohlukanisa kabili kufane nse nxazombili kwizimo ezinhlangothimbili eziyizibalomdwebo nezingeziyizo izibalomdwebo. **Ukulandelana komsebenzi okuzogxilwa kuwo kwi themu 4** • Dweba imigqa ehlukanisanisa kabili kufane nse izinto eziphathekayo nezithombe. • Imisebenzi ebhalwayo kufanele ifake nezibonelo lapho umugqa ohlukanisa kabili **ungasuki** phezulu uya phansi kuphela.

ULWAZI JIKELELE LEBANGA 2 4. ISILINGANISO				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
4.1 **Isikhathi**	**Ukufunda Isikhathi** • Isho igama bese ulandelanisa izinsuku zesonto. • Isho bese ulandelanisa izinyanga zonyaka. • Faka izinsuku zokuzalwa, imigubho yokholo, izinsuku zokuphumula, izinsuku zezigameko zomlando, imicimbi yesikole kwikhalenda. • Funda iwashi lezinti ngamahora nangesigamu sehora **Bala ubude besikhathi nokudlula kwesikhathi** • Sebenzisa iwashi ukubala ubude besikhathi ngamahora noma ngesigamu sehora.	**Ukufunda Isikhathi** • Funda iwashi lezinti ngamahora nangesigamu sehora **Bala ubude besikhathi nokudlula kwesikhathi** • Sebenzisa iwashi ukubala ubude besikhathi ngamahora noma ngesigamu sehora	**Ukufunda Isikhathi** • Isho igama bese ulandelanisa izinsuku zesonto. • Isho bese ulandelanisa izinyanga zonyaka. • Faka izinsuku zokuzalwa, imigubho yokholo, izinsuku zokuphumula, izinsuku zezigameko zomlando, imicimbi yesikole kwikhalenda. • Funda iwashi lezinti ngamahora nangesigamu sehora **Bala ubude besikhathi nokudlula kwesikhathi** • Sebenzisa ikhalenda ukubala nokuchaza ubude besikhathi ngezinsuku noma ngamasonto. • Sebenzisa iwashi ukubala ubude besikhathi ngamahora noma ngesigamu sehora	**Ukufunda Isikhathi** • Funda iwashi lezinti ngamahora ayi-12 nangesigamu sehora nekota yehora. **Bala ubude besikhathi nokudlula kwesikhathi** • Sebenzisa iwashi ukubala ubude besikhathi ngamahora nesigamu sehora
4.2 **Ubude**	**Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala ubude usebenzisa isilinganiso okungenasilinganiso isibonelo. izandla, amagxathu, ubude bepensela, izinto zokubala njll. • Chaza ubude bezinto eziphathekayo ngokubala usho nobude besilinganiso usebenzisa amayunithi angahleliwe. • Sebenzisa ulimi ukukhuluma ngokuqhathanisa isib. kude kuna, kufushane kuna, kuphakeme kuna, kubanzi kuna njll. **Ukuthula Isilinganiso esingahlelekile** • Qagela, linganisa, hlela bese ubhala ubude usebenzisa amamitha (uthi oluyimitha, intambo eyimitha) ngesikalo esilinganisiwe sobude.			**Ukuthula Isilinganiso esingahlelekile** • Qagela, linganisa, hlela bese ubhala ubude usebenzisa amamitha (uthi oluyimitha, intambo eyimitha) ngesikalo esilinganisiwe sobude.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
4.3 **Isisindo**		**Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa,hlela bese ubhala isisindo usebenzisa isikali sokuzimelela kanye nezikali ezingenasilinganiso isibonelo. njengamabhuloki, izitini. • Chaza isisisindo sezinto eziphathekayo ngokubala nokusho ngama ngezilinganiso angahleliwe • Sebenzisa ulimi ukukhuluma ngokuqhathanisa isisindo isibonelo. okulula, okusindayo, okulula kuno, okusinda kuno. **Ukwethula Isilinganiso esingahlelekile** • Qhathanisa, hlela bese ubhala isisindo sezinto ezithengiswayo ezinesisindo esibhalwe ngamakhilogramu,isib. 2kg yempuphu ne 1kg kafulawa. • Uma sikhona isikali sasendlini yokugeza, abafundi bangazikala izisindo zabo besebenzisa isikali sasendlini yokugeza. Okulindelekile ukuba abafundi bafunde isisindo esisondelene nothi lwesikali.. bachaza isisindo sabo njengesicishe / sisondelene / siseduze / sikhudlwana / esifanayo (amakhiligramu) abawafunda esikalini.		**Ukwethula Isilinganiso esingahlelekile** afundi benza umsebenzi wokubhala ukuphetha okulandelayo kufaka nokufunda izithombe zalokhu • Imikhiqizo enesisindo esibhaliwe kuyo • Izakali zasendlini yokugeza lapho uthi lwesikali lukhomba inombolo yesisindo.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
4.4 **Umthamo**			**Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala umthamo wezitsha • (Isibonelo. umthamo isitsha esingawumumatha uma sigcwele) ngokusebenzisa izikali ezingenasilinganiso njengezipuni nezinkomishi. • Chaza umthamo wesitsha ngokubala nokusho ukuthi mangaki amayunithi angahlelekile angagcwalisa lesisitsha isibonelo.ibhodlela linomthamo wezinkomishi ezine **Ukwethula Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa, hlela bese uyabhala umthamo wezinto ngokulinganisa ngamalitha usebenzisa: - Amabhodlela anomthamo welitha - Ujeke wokukala onamagabelo akhombisa ilitha • Qhathanisa, hlela bese ubhala umthamo wezinto ezithengisayo umthamo wazo obhalwe ngamalitha isibonelo. 2 amalitha obisi, 1 ilitha yesiphuzo, 5 amalitha kapende.	**Ukwethula Isilinganiso esingahlelekile** Imisebenzi yokubhala ukuphetha okulandelayo, ifaka nokufunda izithombe zalokhu • Imikhiqizo enomthamo obhaliwe kuyona ukuze ikwazi ukuhleleka ngokulandelana • Izithombe zojeke lapho okumumethwe kucishe kufike emgqeni wegabelo lelitha elilodwa noma amabili • Funda ngokusondezela emgqeni wegabelo elilandelayo, chaza umthamo wazo njengokucishe, okuningana, okuningi noma okuncane noma okulingana ncamashi (namalitha)

ULWAZI JIKELELE LEBANGA 2 5. UKUQOKELELWA KOLWAZI				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
5.4 **Qoqa bese uhlela ulwazi**	**Izincomo:** Ukusebenzisa ulwazi oluphelele ngekilasi ukwenza igrafu yezithombe usebenzisa okukodwa nokukodwa okuhambisanayo • Qoqa ulwazi ngezinto ezisekilasini noma esikoleni ukuze uphendule imibuzo ebuzwe uthisha. • Ukubeka ulwazi kwigrafu yezithombe usebenzisa okukodwa nokukodwa okuhambisanayo. • Phendula imibuzo ngegrafu yezithombe usebenzisa okukodwa nokukodwa okuhambisanayo.			
5.5 **Okumele Ulwazi**				
5.6 **Hlaziya bese uhumusha Ulwazi**		Hlaziya ulwazi lwezithombe ezimele izinto ezibonakalayo. **Izincomo** • Okungenani akwenziwe igrafu eyodwa yezithombe usebenzisa okukodwa nokukodwa okuhambisanayo.	**Izincomo:** Yenza igrafu yakho yezithombe ngolwazi olunikiwe oluyizithombe noma ithebula.. • Qoqa ulwazi ngezinto ezisekilasini noma esikoleni ukuze uphendule imibuzo ebuzwe uthisha. • Ukubeka ulwazi kwigrafu yezithombe usebenzisa okukodwa nokukodwa okuhambisanayo. Phendula imibuzo ngegrafu yezithombe usebenzisa okukodwa nokukodwa okuhambisanayo.	Hlaziya ulwazi olumele olunikiwe • Okungenani akwenziwe igrafu eyodwa yezithombe usebenzisa okukodwa nokukodwa okuhambisanayo.

3.4.3 IBANGA LESI-3 Ulwazi jikelele ngethemu

ULWAZI JIKELELE LEBANGA 3 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANO BAZO				
IZIHLOKO	**ITHEMU YOKU - 1**	**ITHEMU YE - 2**	**ITHEMU YE - 3**	**ITHEMU YE - 4**
UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: Bala usebenzisa izinombolo eziphelele				
1.1 **Bala izinto eziphathekayo**	Yenza iqoqo lezinto okungenani ezingama - 200 ukuze uqagele ubuye ubale ngokuyikho. Qagela inombolo yezinto ezingabhekwa ngokubala. Gqugquzela amaqhinga okusebenza ngamaqoqo.	Yenza iqoqo lezinto okungenani ezingama - 500 ukuze uqagele ubuye ubale ngokuyikho. Qagela inombolo yezinto ezingabhekwa ngokubala. Gqugquzela amaqhinga okusebenza ngamaqoqo.	Yenza iqoqo lezinto okungenani ezingama - 700 ukuze uqagele ubuye ubale ngokuyikho. Qagela inombolo yezinto ezingabhekwa ngokubala. Gqugquzela amaqhinga okusebenza ngamaqoqo.	Yenza iqoqo lezinto okungenani ezingama - 1000 ukuze uqagele ubuye ubale ngokuyikho. Qagela inombolo yezinto ezingabhekwa ngokubala. Gqugquzela amaqhinga okusebenza ngamaqoqo5
1.2 **Bala uye phambili ubuye uye emumva**	Bala uye phambili nasemumva ngoku: • 1, kusukela kunoma iyiphi inombolo phakathi kuka - 0 kuya ema - 200 • Ngama - 10, kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 nama - 200 • Ngaku 5 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 200 • Ngaku 2 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 200 • 10 Ngaku 3 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 200 • Ngaku 4 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 200 • Ngama 100 kufinyelela okungenani ema - 500	Bala uye phambili nasemuva ngoku: • 1, kusukela kunoma iyiphi inombolo phakathi kuka - 0 kuya ema - 500 • Ngama - 10, kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 nama - 500 • Ngaku 5 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 500 • Ngaku 2 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 500 • 10 Ngaku 3 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 500 • Ngaku 4 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 500 • Ngama 50, 100 kufinyelela okungenani ema - 1 000	Bala uye phambili nasemuva ngoku: • 1, kusukela kunoma iyiphi inombolo phakathi kuka - 0 kuya ema - 700 • Ngama - 10, kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 nama - 700 • Ngaku 5 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 700 • Ngaku 2 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 700 • 10 Ngaku 3 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 700 • Ngaku 4 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 700 • Ngama - 20, 25, 50 nge - 100 kufinyelela okungenani ema - 1 000	Bala uye phambili nasemuva ngoku: • 1, kusukela kunoma iyiphi inombolo phakathi kuka - 0 kuya ema - 1000 • Ngama - 10, kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 nama -1000 • Ngaku 5 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema -1000 • Ngaku 2 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 1000 • 10 Ngaku 3 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 1000 • Ngaku 4 kusukela kunoma iyiphi indlela yokuphindaphinda izinombolo eziphakathi kwe - 0 kuya ema - 1000 • Ngama - 20, 25, 50 nge - 100 kufinyelela okungenani ema - 1 000

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UKUTHUTHKISWA KOLWAZI LWEZINOMBOLO: Ukumela inombolo ephelele				
1.3 **Uphawu negama lwenombolo**	**Khomba, bona, ufunde izinombolo** • Khomba, bona, ufunde uphawu lwezinombolo eziphakathi kwe - 0 kuya ema - 500. • Bhala uphawu lwezinombolo eziphakathi kwe - 0 kuya ema - 500 • Khomba, bona ufunde amagama ezinombolo eziphakathi kwe - 0 nama - 250 • Bhala amagama ezinombolo eziphakathi kwe - 0 ne - 100	**Khomba, bona, ufunde izinombolo** • Khomba, bona, ufunde uphawu lwezinombolo eziphakathi kwe - 0 kuya ema - 1 000. • Bhala uphawu lwezinombolo eziphakathi kwe - 0 kuya ema - 1 000 • Khomba, bona ufunde amagama ezinombolo eziphakathi kwe - 0 nama - 250 • Bhala amagama ezinombolo eziphakathi kwe - 0 ne - 250	**Khomba, bona, ufunde izinombolo** • Khomba, bona, ufunde uphawu lwezinombolo eziphakathi kwe - 0 kuya ema - 1 000. • Bhala uphawu lwezinombolo eziphakathi kwe - 0 kuya ema - 1 000 • Khomba, bona ufunde amagama ezinombolo eziphakathi kwe - 0 nama - 500 • Bhala amagama ezinombolo eziphakathi kwe - 0 ne - 500	**Khomba, bona, ufunde izinombolo** • Khomba, bona, ufunde uphawu lwezinombolo eziphakathi kwe - 0 kuya ema - 1 000. • Bhala uphawu lwezinombolo eziphakathi kwe - 0 kuya ema - 1 000 • Khomba, bona ufunde amagama ezinombolo eziphakathi kwe - 0 nama - 1 000 • Bhala amagama ezinombolo eziphakathi kwe - 0 ne - 1 000
UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: chaza, qhathanisa uhlele izinombolo eziphelele				
1.4 **Chaza, uqhathanise bese uhlela izinombolo**	Chaza, uqhathanise bese uhlela izinombolo kuze kufinyelele ema-99 • Qhathanisa izinombolo eziphelele kuze kufinyelele ema - 99 usebenzisa okuncane kunokunye, okukhulu kunokunye, okungaphansi kunokunye nokulingana nokunye. • Hlela izinombolo eziphelele kufinyelela ema-99 kusukela kokuncane kakhulu kuya kokukhulu kakhulu kanye nokukhulu kakhulu kuya kokuncane kakhulu.	Chaza, uqhathanise bese uhlela izinombolo kuze kufinyelele ema-500 • Qhathanisa izinombolo eziphelele kuze kufinyelele ema - 500 usebenzisa okuncane kunokunye, okukhulu kunokunye, okungaphansi kunokunye nokulingana nokunye. • Hlela izinombolo eziphelele kufinyelela ema-500 kusukela kokuncane kakhulu kuya kokukhulu kakhulu kanye nokukhulu kakhulu kuya kokuncane kakhulu	Chaza, uqhathanise bese uhlela izinombolo kuze kufinyelele ema-700 • Qhathanisa izinombolo eziphelele kuze kufinyelele ema - 700 usebenzisa okuncane kunokunye, okukhulu kunokunye, okungaphansi kunokunye nokulingana nokunye. • Hlela izinombolo eziphelele kufinyelela ema-700 kusukela kokuncane kakhulu kuya kokukhulu kakhulu kanye nokukhulu kakhulu kuya kokuncane kakhulu **Sebenzisa izinombolozesikhunbdla ukukhombisa ukuhleleka, indawo noma isikhundla.** • Sebenzisa, funda bese ubhale izinombolo zesikhundla kufinyelela ema - 31	Chaza, uqhathanise bese uhlela izinombolo kuze kufinyelele ema-999 • Qhathanisa izinombolo eziphelele kuze kufinyelele ema - 999 usebenzisa okuncane kunokunye, okukhulu kunokunye, okungaphansi kunokunye nokulingana nokunye. • Hlela izinombolo eziphelele kufinyelela ema-999 kusukela kokuncane kakhulu kuya kokukhulu kakhulu kanye nokukhulu kakhulu kuya kokuncane kakhulu

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UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: Ubungako benani lenombolo				
1.5 **Ubungako benani lenombolo**	**Ukubona ubungako bezinombolo kufinyelela ema - 99** • Ukukwazi ukubona ukuthi inombolo ngayinye imeleni • Hlakaza izinombolo ezihamba ngazimbili kufinyelela ema - 99 ngamashumi nemivo • Khomba usho ubungako bedijithi ngayinye	**Ukubona ubungako bezinombolo kufinyelela ema - 500** • Ukukwazi ukubona ukuthi inombolo ngayinye imeleni • Hlakaza izinombolo ezihamba ngantathu kufinyelela ema - 500 ngama - khulu, -shumi ngemivo • Khomba usho ubungako bedijithi ngayinye	**Ukubona ubungako bezinombolo kufinyelela ema - 700** • Ukukwazi ukubona ukuthi inombolo ngayinye imeleni • Hlakaza izinombolo ezihamba ngantathu kufinyelela ema - 700 ngama - khulu, -shumi ngemivo • Khomba usho ubungako bedijithi ngayinye	**Ukubona ubungako bezinombolo kufinyelela ema - 999** • Ukukwazi ukubona ukuthi inombolo ngayinye imeleni • Hlakaza izinombolo ezihamba ngantathu kufinyelela ema - 999 ngama - khulu, -shumi ngemivo • Khomba usho ubungako bedijithi ngayinye
UKUXAZULULA IZINKINGA ZEZIBALO ESIMWENI ESIJWAYELEKILE				
1.6 **Amasu okuxazulula izinkinga zezibalo**	Sebenzisa lamasu alandelayo uma uxazulula izinkinga zezibalo: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo	Sebenzisa lamasu alandelayo ukuxazulula lezinkinga zezibalo: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo • Ukusondezela emashumini	Sebenzisa lamasu alandelayo ukuxazulula lezinkinga zezibalo: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo • Ukusondezela emashumini	Sebenzisa lamasu alandelayo ukuxazulula lezinkinga zezibalo ubuye uchaze izixazululo zezinkinga: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo • Ukusondezela emashumini
1.7 **Ukuhlanganisa nokususa**	Xazulula izibalo zamagama ezimweni ezijwayelekile, ezinezimpendulo ezifinyelela ema - 99, uchaze isixazululi sakho kufaka ukuhlanganisa nokususa	Xazulula izibalo zamagama ezimweni ezijwayelekile, ezinezimpendulo ezifinyelela ema - 400, uchaze isixazululi sakho kufaka ukuhlanganisa nokususa	Xazulula izibalo zamagama ezimweni ezijwayelekile, ezinezimpendulo ezifinyelela ema - 800, uchaze isixazululi sakho kufaka ukuhlanganisa nokususa	Xazulula izibalo zamagama ezimweni ezijwayelekile, ezinezimpendulo ezifinyelela ema - 999, uchaze isixazululi sakho kufaka ukuhlanganisa nokususa
1.8 **Ukuhlanganisa okuphindayo okuholela ezibalweni zokuphindaphinda**	Xazulula izibalo zezinombolo ezimweni ezijwayelekile, ezinezimpendulo ezifinyelela ema - 50, uchaze isixazululi sakho kufaka ukuphindaphinda	Xazulula izibalo zezinombolo ezimweni ezijwayelekile, ezinezimpendulo ezifinyelela ema - 75, uchaze isixazululi sakho kufaka ukuphindaphinda	Xazulula izibalo zezinombolo ezimweni ezijwayelekile, ezinezimpendulo ezifinyelela ema - 75, uchaze isixazululi sakho kufaka ukuphindaphinda	Xazulula izibalo zezinombolo ezimweni ezijwayelekile, ezinezimpendulo ezifinyelela ema - 100, uchaze isixazululi sakho kufaka ukuphindaphinda

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1.9 **Ukwenza amaqoqo nokuhlukaniselana okuholela ezibalweni zokuhlukanisa**	Xazulula izibalo zezinombolo ezimweni ezijwayelekile, uchaze isixazululi sakho okufaka ukuhlukaniselana ngokulinganayo nangokwenza amaqoqo kuze kufinyelele ema - 50 kube nezimpendulo ezingafaka izinsalela.	Xazulula izibalo zezinombolo ezimweni ezijwayelekile, uchaze isixazululi sakho okufaka ukuhlukaniselana ngokulinganayo nangokwenza amaqoqo kuze kufinyelele ema - 75 kube nezimpendulo ezingafaka izinsalela.	Xazulula izibalo zezinombolo ezimweni ezijwayelekile, uchaze isixazululi sakho okufaka ukuhlukaniselana ngokulinganayo nangokwenza amaqoqo kuze kufinyelele ema - 75 kube nezimpendulo ezingafaka izinsalela.	Xazulula izibalo zezinombolo ezimweni ezijwayelekile, uchaze isixazululi sakho okufaka ukuhlukaniselana ngokulinganayo nangokwenza amaqoqo kuze kufinyelele ema - 100 kube nezimpendulo ezingafaka izinsalela.
1.10 **Ukuhlukanisa okuholela emaqhezwini**	Xazulula uchaze izixazululo zezinkinga eziphathekayo kufaka ukuhlukaniselana ngokulinganayo okuholela kwizixazululo ezifaka izingcezu ezizodwa namaqhezu anezingcezu ezingaphezu kolulodwa, Isib. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, njll.	Xazulula uchaze izixazululo zezinkinga eziphathekayo kufaka ukuhlukaniselana ngokulinganayo okuholela kwizixazululo ezifaka izingcezu ezizodwa namaqhezu anezingcezu ezingaphezu kolulodwa Isib. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{5}$, njll.	Xazulula uchaze izixazululo zezinkinga eziphathekayo kufaka ukuhlukaniselana ngokulinganayo okuholela kwizixazululo ezifaka izingcezu ezizodwa namaqhezu anezingcezu ezingaphezu kolulodwa Isib. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{5}$, njll.	Xazulula uchaze izixazululo zezinkinga eziphathekayo kufaka ukuhlukaniselana ngokulinganayo okuholela kwizixazululo ezifaka izingcezu ezizodwa namaqhezu anezingcezu ezingaphezu kolulodwa Isib. $\frac{1}{2}$, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{5}$,njll.
1.11 **Imali**	• bona bese ukhomba imali yaseNingizimu Afrika ewuhlweza kanye neyamaphepha • Xazulula izinkinga zezimali eziyisamba noshinntshi ongamarandi noma namasenti.	• Ukubona bese ukhomba imli yaseNingizimu Afrika ewuhlweza kanye neyamaphepha • Xazulula izinkinga zezimali eziyisamba noshinntshi ongamarandi noma namasenti.	• Ukubona bese ukhomba imli yaseNingizimu Afrika ewuhlweza kanye neyamaphepha • Xazulula izinkinga zezimali eziyisamba noshinntshi ongamarandi noma namasenti. • Guqula phakathi kwamarandi namasenti	• Ukubona bese ukhomba imli yaseNingizimu Afrika ewuhlweza kanye neyamaphepha • Xazulula izinkinga zezimali eziyisamba noshinntshi ongamarandi noma namasenti. • Guqula phakathi kwamarandi nasenti
UKUBALA ESIMWENI ESIKHULULEKILE				
1.12 **Amasua (izindlela noma amaqhinga)**	Sebenzisa amasu alandelayo uma ubala: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo	Sebenzisa amasu alandelayo uma ubala: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo • Ukusondezela emashumini	Sebenzisa amasu alandelayo uma ubala: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo • Ukusondezela emashumini	Sebenzisa amasu alandelayo uma ubala: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo • Ukusondezela emashumini

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1.13 **Ukuhlanganisa nokususa**	• Izibalo zokuhlanganisa ukuyofika ema 99 • Izibalo zokususa besukela kuma 99 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Yenza amabhondi ezinombolo kuyofika e 20	• Izibalo zokuhlanganisa ukuyofika ema 400 • Izibalo zokususa besukela kuma 400 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Yenza amabhondi ezinombolo kuyofika e 30	• Izibalo zokuhlanganisa ukuyofika ema 800 • Izibalo zokususa besukela kuma 800 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Yenza mabhondi ezinombolo kuyofika e 30	• Izibalo zokuhlanganisa ukuyofika ema 999 • Izibalo zokususa besukela kuma 999 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Yenza amabhondi ezinombolo kuyofika e 30
1.14 **Ukuhlanganisa okuphindayo okuholela ezibalweni zokuphindaphinda**	• Phindaphinda izinombolo kusukela kwe - 1 kuya kwezi - 10 ngo 2, 5, 3, 4 • Sebenzisa izimpawu ezifanele (x, =, ☐)	• Phindaphinda ngoku 2, 4, 5, 10, 3 kuya kwisamba esingama - 50 • Sebenzisa izimpawu ezifanele (x, =, ☐)	• Phindaphinda ngoku 2, 3, 4, 5, 10, kuya kwisamba esiyi - 100 • Sebenzisa izimpawu ezifanele (x, =, ☐)	• Phindaphinda ngoku 2, 3, 4, 5, 10, kuya kwisamba esiyi - 100 • Sebenzisa izimpawu ezifanele (x, =, ☐)
1.15 **Ukuhlukanisa**	• Hlukanisa izinombolo kufinyelela ema - 50 ngo 2, 5, 10 • Sebenzisa izimpawu ezifanele (÷, =, ☐)	• Hlukanisa izinombolo kufinyelela ema - 50 ngo 2, 4, 5, 10 • Sebenzisa izimpawu ezifanele (÷, =, ☐)	• Hlukanisa izinombolo kufinyelela ema - 99 ngo 2, 3, 4, 5, 10 • Sebenzisa izimpawu ezifanele (÷, =, ☐)	• Hlukanisa izinombolo kufinyelela ema - 99 ngo 2, 3, 4, 5, 10 • Sebenzisa izimpawu ezifanele (÷, =, ☐)

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1.16 **Izibalo zekhanda**	**Ulwazi Lwezinombolo: Uhla Lwezinombolo kufinyelela ku 200** • Hlela izinombolo ezikhethiwe ngokwamaqoqo. Uhla lwezinombolo kufinyelela ema - 200 • Qhathanisa izinombolo kuya ema - 200 bese uyasho ukuthi eyiphi: - Eningi noma encane ngoku 1 - Eningi noma encane ngoku 2 - Eningi noma encane ngoku 3 - Eningi noma encane ngoku 4 - Eningi noma nvane ngoku 5 - Eningi noma encane nge 10 **Khumbula ngokushesha:** • Khumbula izindlela zokuhlanganisa nokususa kuyofinyelela ema - 20 • Hlanganisa noma ususe okubalwa ngama 10 kusukela ku 0 kuya e 100	**Ulwazi Lwezinombolo: Uhla Lwezinombolo kufinyelela ku 500** • Hlela izinombolo ezikhethiwe ngokwamaqoqo. Uhla lwezinombolo kufinyelela ema - 500 • Qhathanisa izinombolo kuya ema - 500 bese uyasho ukuthi eyiphi: - Eningi noma encane ngoku 1 - Eningi noma encane ngoku 2 - Eningi noma encane ngoku 3 - Eningi noma encane ngoku 4 - Eningi noma nvane ngoku 5 - Eningi noma encane nge 10 **Khumbula ngokushesha:** • Khumbula izindlela zokuhlanganisa nokususa kuyofinyelela ema - 20 • Hlanganisa noma ususe okubalwa ngama 10 kusukela ku o kuya e 100	**Ulwazi Lwezinombolo: Uhla Lwezinombolo kufinyelela ku 750** • Hlela izinombolo ezikhethiwe ngokwamaqoqo. • Qhathanisa izinombolo kuya ema - 200 bese uyasho ukuthi eyiphi: - Eningi noma encane ngoku 1 - Eningi noma encane ngoku 2 - Eningi noma encane ngoku 3 - Eningi noma encane ngoku 4 - Eningi noma ncane ngoku 5 - Eningi noma encane nge 10 **Khumbula ngokushesha:** • Khumbula izindlela zokuhlanganisa nokususa kuyofinyelela ema - 20 • Hlanganisa noma ususe okubalwa ngama 10 kusukela ku o kuya e 100	**Ulwazi Lwezinombolo: Uhla Lwezinombolo kufinyelela ku 999** • Hlela izinombolo ezikhethiwe ngokwamaqoqo. • Qhathanisa izinombolo kuya ema - 1 000 bese uyasho ukuthi eyiphi: - Eningi noma encane ngoku 1 - Eningi noma encane ngoku 2 - Eningi noma encane ngoku 3 - Eningi noma encane ngoku 4 - Eningi noma nvane ngoku 5 - Eningi noma encane nge 10 **Khumbula ngokushesha:** • Khumbula izindlela zokuhlanganisa nokususa kuyofinyelela ema - 20 • Hlanganisa noma ususe okubalwa ngama 10 kusukela ku o kuya e 100 • Izindlela zokuphindaphinda nokuhlukanisa: - Ithebula lika 2 kufinyelela 2 x 10 - Ithebula lika 10 kufinyelela ku 10 x 10

IZIHLOKO	ITHEMU YOKU - 1	ITHEMU YE - 2	ITHEMU YE - 3	ITHEMU YE - 4
1.16 **Izibalo zekhanda**	**Amaqhinga okubala ngekhanda:** Sebenzisa amaqhinga okubala: • Beka inombolo enkulu kuqala ukuze ubale uye phambili noma emumva. • Umugqa wezinombolo • Phinda kabili ubuye uhlukanise kabili • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa	**Amaqhinga okubala ngekhanda:** Sebenzisa amaqhinga okubala: • Beka inombolo enkulu kuqala ukuze ubale uye phambili noma emumva. • Umugqa wezinombolo • Phinda kabili ubuye uhlukanise kabili • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa	**Amaqhinga okubala ngekhanda:** Sebenzisa amaqhinga okubala: • Beka inombolo enkulu kuqala ukuze ubale uye phambili noma emumva. • Umugqa wezinombolo • Phinda kabili ubuye uhlukanise kabili • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa • Sebenzisa ubudlelwano phakathi kokuphindaphinda nokuhlukanisa	**Amaqhinga okubala ngekhanda:** Sebenzisa amaqhinga okubala: • Beka inombolo enkulu kuqala ukuze ubale uye phambili noma emumva. • Umugqa wezinombolo • Phinda kabili ubuye uhlukanise kabili • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa • Sebenzisa ubudlelwano phakathi kokuphindaphinda nokuhlukanisa
1.17 **Amaqhezu**	• Sebenzisa ubuye unike amagama izingcezu ezizodwa ezifaka: uhhafu, ikota, okukodwa kokuthathu, nokukodwa kokuhlanu • Bona amaqhezu asemidwebeni • Bhala amaqhezu abe ngokukodwa kokubili, okukodwa kokuthathu.	• Sebenzisa ubuye unike amagama izingcezu ezizodwa zifaka: uhhafu, ikota, okukodwa kokuyisishiyagalombili, nokukodwa kokuthathu, okukodwa kokuyisithupha, okukodwa kokuhlanu • Bona amaqhezu asemidwebeni • Bhala amaqhezu abe ngokukodwa kokubili, okukodwa kokuthathu.	• Sebenzisa ubuye unike amagama izingcezu ezizodwa zifaka: uhhafu, ikota, okukodwa kokuyisishiyagalombili, nokukodwa kokuthathu, okukodwa kokuyisithupha, okukodwa kokuhlanu • Bona amaqhezu asemidwebeni • Qala ukubona ukuthi ohhafu ababili noma okuthathu kokuthathu kwenza okukodwa okuphelele, uhhafu owodwa namakota amabili kuyalingana • Bhala amaqhezu abe ngokukodwa kokubili, okubili kokuthathu.	• Sebenzisa ubuye unike amagama izingcezu ezizodwa zifaka: uhhafu, ikota, okukodwa kokuyisishiyagalombili, nokukodwa kokuthathu, okukodwa kokuyisithupha, okukodwa kokuhlanu • Bona amaqhezu asemidwebeni • Qala ukubona ukuthi ohhafu ababili noma okuthathu kokuthathu kwenza okukodwa okuphelele, uhhafu owodwa namakota amabili kuyalingana • Bhala amaqhezu abe ngokukodwa kokubili, okubili kokuthathu.

Izinhlobo zezinkinga zeBanga lesi - 3

Lezi yizibonelo zezinhlobo zezinkinga ezibalulekile okufanele ukuthi uthisha azethule ngokuziphinda ekilasni. Uma uthisha esebenza ngamaqoqo amancane, kufanele ayisho ngomlomo inkinga. Uma abafundi sebekwazi ukufunda, usengabanikeza izinkinga zezibalo ezibhalwe phansi, kodwa futhi akayisho inkinga ngomlomo.

Izinkinga ezisesimweni esejwayelekile zingafakwa ephepheni lokusebenzela, kodwa kube kufishane, iqonde ngqo kube ejwayelekile, uthisha kufanele aqiniseke ukuthi bonke abafundi bayaziqonda lezizinkinga.

Amaqoqo

Ukwenza amaqoqo, kulahlwa izinsalela

Ibhikawozi lithengisa izinkwa eziyi - 12 esikhwameni ngasiynye. Banezinkwa eziyi - 118. Zingaki izikhwama ezifaka izinkwa eziyi 12 abazozenza?

Ukwenza amaqoqo, kufakwa izinsalela ezimpemdulweni

Umlimi unamaqanda angama - 227. Mangaki amabhokisi amaqanda azowathola uma ibhokisi ngalinye lifaka amaqanda ayi - 6?

Ukuhlukanisa

Ukuhlukanisa, kulahlwa insalela

Abangane bahlukaniselana ibhokisi elinamaswidi angama - 84 ukuze bonke bathole amaswidi alinganayo.

Ukuhlukanisa okuholela emaqhezwini

Hlukanisa amawolintshi ayi - 15 phakathi kwabangane abayisithupha ukuze bonke bathole amawolintshi ngokulinganayo kungabibikho asalayo.

Ingxenye yeqoqo

Ugogo unikeza uNoluthando imali engamarandi ayi - 12. UNoluthando ufuna ukonga ingxenye yokukodwa kokuthathu. Malini azoyonga?

Ukubekwa kwamaqhezu ndawonye

Umqeqeshi webhola lomnqakiswano unikeza umdlali ngamunye uhhafu wewolintshi. Kunabadlali abayi - 14. Udinga amawolintshi amangaki?

Loluhlobo lwezinkinga kufanele luvezwe kuphela uma abafundi sebexazulule izinkinga ezine noma ezinhlanu zokuhlukaniselana, kuholela kwizinhlobo zamaqhezu kanye nokwazi amagama ezingcezu zamaqhezu.

Ukwabelana ngokulingana

UnoMfundo mncane kunoNokwethaba. Uma uNomfundo edla ucezu olulodwa lwesinkwa uNokwethaba ufuna izingcezu ezimbili. Uma uNomfundo edla izingcezu ezimbili, uNokwethaba ufuna izingcezu ezine. Ngemumva kwezinsukwana, bazobe bedle izingcezu eziyi - 12. Zingaki izingcezu ezidliwe nguNomfundo, zingaki ezidliwe nguNokwethaba?

UThemba noSimanga benza umsebenzi othile ndawonye. UThemba usebenza amahora amathathu, uSimanga usebenza ihora elilodwa. Bakhokhelwe imali engangamarandi - 60. Bazoyihlukanisa kanjani lemali?

Ukuhlanganisa okuphindayo

Mangaki amasondo ezimotweni ezingama - 36?

Izinga

UThami ukwazi ukugcina imali engango - 35c ngesonto. Malini akwazi ukuyigcina ngamasonto ayisi - 8?

Igridi

Umnumzane uKhumalo utshale imigqa yezihlahla zamawolintshi engama - 20. Kunezihlahla eziyi - 12 umugqa ngamunye. Zingaki izihlahla ezitshaliwe sezizonke?

Ukuhlanganisa nokuhlukanisa

Kunezinhlobo okungenani ezintathu zezinkinga zokuhlanganisa nokuhlukanisa. Uhlobo ngalunye lungavezwa ngezindlela ezahlukene. Izinhlobo eziyisisekelo yilezi:

Ushintsho

UNoluthando uqoqe izivalo zamabhodlela ezingama - 234. UPhilasande umnikeze ezingama - 80 ngaphezulu. Zingaki izivalo zamabhodlela anazo?

Bekunabagibeli abangama - 500 esitimeleni. Kwehla abayi - 176. Bangaki abagibeli abasele esitimeleni?

Hlanganisa

UNomali uqoqela isikole sakhe amabhodlela namathini. Uqoqe amabhodlela ayi - 124 kanye namathini angama - 268. Mangaki amabhodlela namathini awaqoqile?

Isitolo sinamaphakethe angama - 368 amakhekhe; angama - 82 asonakele. Mangaki angakonakali?

Qhathanisa

IBanga lesi 2 liqoqe imali engango R446. IBanga lesi 3 laqoqa imali engango R729. Ingakanani imali eqoqwe yiBanga lesi 3 ngaphezulu kunaleyo eqoqwe yiBanga lesi 2?

Ukuvezwa kwenkinga ngayinye ngezindlela ezahlukene

Izinkinga kufanele zivezwe ngezindlela ezahlukene. Isibonelo, zombili lezizinkinga ezoshintsho, kodwa okungaziwa kusezindaweni ezahlukene.

Isitolo sinamasaka empuphu, bathenga amanye angama - 55. Isitolo manje sesinamasaka ayi - 170. Mangaki amasaka empuphu ebekade esesitolo ekuqaleni?

Isitolo besinamaphakethe angama - 500 kashukela. Ngemuva kokuthengisa amanye alamaphakethe, babenamaphakethe angama - 324 asele. Bathengise amaphakethe amangaki?

Izimo zezinkinga ezinobudlelwano obusebenzayo obehlukene

UNokwethaba uthengisa amawolintshi abiza amarandi amane (R4) lilinye. Yenza ithebula lokumsiza ukuthola inani lama oda amakhulu.

Inani lamawolintshi	1	2	3	4	5	10	20
Inani ngokwamarandi	4	8					

Sebenzisa lelithebula ukuthola inani lamawolintshi ayisi - 7 kanye nangama - 23.

UNomusa ugada ingane. Ubiza amarandi angama - 20 imali yokuhamba, kube amarandi ama 5 ngehora ukugada ingane. Qedela lelithebula lakhe.

Inani lamahora	1	2	3	4	5	10
Inani ngokwamarandi (R)	25	30				

Qaphela ukuthi izinkinga zikaNokwethaba noNomusa zisebenza ngokungafani.

Lezizinhlobo zezinkinga zezenzelwe ukusiza uthisha. Abafundi akumele baxinwe ngalezizinkinga. Khumbula ukuthi abafundi bajwayele ukusebenzisa izindlela ezahlukene zokuxazulula izinkinga okungenzeka kungabi yilokhu okulindelwe nguthisha. Isibonelo,inkinga yokuhlukanisa ingaxazululwa ngokususa okuphindayo,ukuhlanganisa noma ngokuphindaphinda. Izindlela ezisetshenziswa abafundi zingashintsha ngokuqhubeka konyaka ngokukhula kolwazi nokujwayela izinhlobo zezinkinga,nokukhula kolwazi lwazi lwabo lwezinombolo.

ULWAZI JIKELELE LEBANGA 3 2. AMAPHETHINI, UBUDLELWANE, I-ALJEBHRA				
IZIHLOKO	**ITHEMU YOKU - 1**	**ITHEMU YE - 2**	**ITHEMU YE - 3**	**ITHEMU YE - 4**
2.1 **Amaphethini ejiyometri**	**Kopisha, wandise bese uchaza.** Kopisha, wandise bese uchaza use-benzisa amagama • Amaphethini alula enziwe ngezinto eziphathekayo • Amaphethini alula enziwe imidwe-bo, izimo noma izinto eziphathek-ayo. **Uhla lwamaphethini:** • Amaphethini alula lapho izimo noma amaqoqo ezimoephindiwe. **Akha bese uchaza amaphethini akho:** • Akha amaphethini okusamdwebo - Usebenzisa izinto eziphathekayo - Ngokudweba imigqa, izimo noma izinto eziphathekayo • Chaza amaphethini akho	**Kopisha, wandise bese uchaza.** Kopisha, wandise bese uchaza use-benzisa amagama • Amaphethini alula enziwe ngezinto eziphathekayo • Amaphethini alula enziwe imidwe-bo, izimo noma izinto eziphathek-ayo. **Uhla lwamaphethini:** • Amaphethini alula lapho izimo noma amaqoqo ezimo ephindiwe. • Amaphethini lapho inombolo noma usayizi wesimo ushintsha ngendle-la eqagelekayo, Isib. amaphethini akhulayo **Akha bese uchaza amaphethini akho:** • Akha amaphethini okusamdwebo - Usebenzisa izinto eziphathekayo - Ngokudweba imigqa, izimo noma izinto eziphathekayo • Chaza amaphethini akho	**Kopisha, wandise bese uchaza.** Kopisha, wandise bese uchaza use-benzisa amagama • Amaphethini alula enziwe ngezinto eziphathekayo • Amaphethini alula enziwe imidwe-bo, izimo noma izinto eziphathek-ayo. **Uhla lwamaphethini:** • Amaphethini lapho inombolo noma usayizi wesimo ushintsha ngendle-la eqagelekayo, Isib. amaphethini akhulayo **Akha bese uchaza amaphethini akho:** • Akha amaphethini okusamdwebo - Usebenzisa izinto eziphathekayo - Ngokudweba imigqa, izimo noma izinto eziphathekayo • Chaza amaphethini akho	**Amaphethini asizungezile** Bona,chaza ngamagama bese ukopi-sha amaphethini asejiyometri • emvelweni • empilweni yesimanje yansuku zonke • kumasiko namagugu ethu

IZIHLOKO	ITHEMU YOKU - 1	ITHEMU YE - 2	ITHEMU YE - 3	ITHEMU YE - 4
2.2 **Iphethini yezinombolo**	**Kopisha, wandise bese uchaza.** Kopisha wandise bese uchaza ukulandelana okulula kwezinombolo okungenani kuyofika kuma 200. Ukulandelana kwezinombolo kufanele kukhombise ukubala uya phambili ubuye uye emumva kanje: • sebenzisa izikhawu njengoba kuchaziwe eBangeni le - 2 nohla lwezinombolo olukhulayo • ngama 100 kuya okungenani kwangama - 500	**Kopisha, wandise bese uchaza.** Kopisha wandise bese uchaza ukulandelana okulula kwezinombolo okungenani kuyofika kuma 200. Ukulandelana kwezinombolo kufanele kukhombise ukubala uya phambili ubuye uye emumva kanje: • sebenzisa izikhawu njengoba kuchaziwe eBangeni le - 2 nohla lwezinombolo olukhulayo • ngama 50,100 kuya okungenani kwangama - 1000	**Kopisha, wandise bese uchaza.** Kopisha wandise bese uchaza ukulandelana okulula kwezinombolo okungenani kuyofika kuma 200. Ukulandelana kwezinombolo kufanele kukhombise ukubala uya phambili ubuye uye emumva kanje: • sebenzisa izikhawu njengoba kuchaziwe eBangeni le - 2 nohla lwezinombolo olukhulayo • ngama 20, 25, 50,100 kuya okungenani kwangama - 1000 **akha uchaze iphethini yakho yezinombolo**	**Kopisha, wandise bese uchaza.** Kopisha wandise bese uchaza ukulandelana okulula kwezinombolo okungenani kuyofika kuma 200. . Ukulandelana kwezinombolo kufanele kukhombise ukubala uya phambili ubuye uye emumva kanje: • sebenzisa izikhawu njengoba kuchaziwe eBangeni le - 2 nohla lwezinombolo olukhulayo • ngama 20, 25, 50,100 kuya okungenani kwangama - 1000 **akha uchaze iphethini yakho yezinombolo**

ULWAZI JIKELELE LEBANGA 3 3. INDAWO NEZIMO (IJIYOMETRI)				
IZIHLOKO	**ITHEMU YOKU - 1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
3.1 **Isikhundla, inkomba nokubukeka kwento**		**Isikhundla nokubukeka kwento** • qondanida ukubukeka kwezinto ezifanayo zansuku zonke • Isho into yansuku zonke uma iboniswa ngendlela engajwayelekile. **Isikhundla nezinkomba** • Landela izinkomba uma unyakaza ekilasini nasesikoleni • Nika izinkomba zokunyakaza ekilasini nasesikoleni.	**Isikhundla nokubukeka kwento** • Funda, humusha bese udweba ibalazwe elingahlelekile noma. • Thola izinto kwibalazwe **Indawo nezinkomba** • Landela izinkomba usuka endawieni eyodwa uya kwenye usebenzisa ibalazwe	
3.2 **Izinto ezinhlangothintathu** **3-D**		**Uhla lwezinto Eziphathekayo** Bona bese usho izinto ezinhlangothi ntathu ezitholakala ekilasini nasezithombeni • Okusabhola • Okusabhokisi • Amasilinda **Izimpawu zezinto** Chaza, hlela bese uqhathanisa izinto ezinhlangothi ntathu ngokuthi: • Usebenzise izimo ezinhlangothi mbili ukwenza ubuso bezinto ezinhlangothi ntathu • Usebenzise izicaba noma okugwingcizayo.	**Uhla lwezinto Eziphathekayo** Bona bese usho izinto ezinhlangothi ntathu ezitholakala ekilasini nasezithombeni • Okusabhola • Okusabhokisi • Amasilinda • Iphiramidi • Ikhoni **Izimpawu zezinto** Chaza, hlela bese uqhathanisa izinto ezinhlangothi ntathu ngokuthi: • Usebenzise izinto ezinhlangothi mbili ukwenza ubuso bezinto ezinhlangothi ntathu • Usebenzise izicaba noma okugwingcizayo.	**Uhla lwezinto Eziphathekayo** Bona bese usho izinto ezinhlangothi ntathu ezitholakala ekilasini nasezithombeni • Okusabhola • Okusabhokisi • Amasilinda • Iphiramidi • Ikhoni **Izimpawu zezinto** Chaza, hlela bese uqhathanisa izinto ezinhlangothi ntathu ngokuthi: • Usebenzise izinto ezinhlangothi mbili ukwenza ubuso bezinto ezinhlangothi ntathu • Usebenzise izicaba noma okugwingcizayo.

IZIHLOKO	ITHEMU YOKU - 1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
3.2 **Izinto ezinhlangothintathu**		**Umsebenzi Okugxilwa kuwo** • Bona bese wakha izinto ezinhlangothi ntathu ozinikiwe usebenzisa izinto eziphathekayo njengezimo ezinhlangothi mbili, ubumba, izinti zokuphuza, izinti zokuvungula nezinye izinto ezinhlangothi ntathu. **Ukulandelana komsebenzi okuzugxilwa kuwo eThemu 2** Sebenzisa okusamabhola, okusamabhokisi, amasilinda njengoenzile eBangeni 2; nika amagama azo beseuwenza amaqoqo. Gxila ebusweni bohlobo ngalunye lwento. Bheka ukuthi ubuso buyisicaba noma buyagwingciza. Sebenzisa izingqwembe ezisikwe izikwele ukwenza ibhokisi. Khuluma ngobuso obuyisicaba obusesimweni esisabhokisi nakwisilinda bese uchaza ukuthi ayindilinga, isikwele noma unxande. Qedela lengxenye yomsebenzi ngokwenza umsebenzi obhalwayo.	**Umsebenzi Okugxilwa kuwo** • Bona bese wakha izinto ezinhlangothi ntathu ozinikiwe usebenzisa izinto eziphathekayo njengezimo ezinhlangothi mbili, ubumba, izinti zokuphuza, izinti zokuvungula nezinye izinto ezinhlangothi ntathu. **Ukulandelana komsebenzi okuzugxilwa kuwo eThemu 3** Sebenzisa okusamabhola, okusamabhokisi, amasilinda njengoba senzile eBangeni 2; nika amagama azo beseuwenza amaqoqo. Gxila ebusweni bohlobo ngalunye lwento. Bheka ukuthi ubuso buyisicaba noma buyagwingciza. Xoxa ngobuso obuyisicaba obukumaprizimu namasilinda bese uyabuchaza ukuthi buyindilinga, buyisikwele, buwunxande noma buwunxantathu. Nika igama bese wenza iqoqo lezinto ezinhlanothi ntathu ezingenhla. Sebenzisa izinti zokvungula, izinti zokuphuza noma iphepha eligoqiwe laba umbhobho ukwenza iphiramidi. Qedela lengxenye yomsebenzi ngokwenza umsebenzi obhalwayo.	**Ukulandelana komsebenzi okuzugxilwa kuwo eThemu 4** Qedela lengxenye yomsebenzi ngokwenza umsebenzi obhalwayo.

IZIHLOKO	ITHEMU YOKU - 1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
3.3 **Izimo ezinhlangothimbili** **2-D**	**Uhla Lwezimo** • Indilinga • Unxantathu • Isikwele • Unxande **Izimpawu Zezimo** Chaza, uhlele bese uqhathanisa izimo ezinhlangothimbili ngoku: • izimo • amacala aqondile • amacala ayindilinga **Ukulandelana komsebenzi okuzugxilwa kuwa eThemu 1** Nika amagama bese ubeka izimo ngamaqoqo. Gxila ezinhlobeni zamacala akumumo ngamunye. Hlukanisa izimo ngokubuka ukuthi amacala ayindingila noma aqondile. Dweba indilinga, isikwele, unxande, nonxantathu. Qedela lengxenye yomsebenzi ngokwenza umsebenzi obhalwayo.		**Uhla Lwezimo** • Indilinga • Unxantathu • Isikwele • Unxande **Izimpawu Zezimo** Chaza, uhlele bese uqhathanisa izimo ezinhlangothimbili ngoku: • izimo • amacala aqondile • amacala ayindilinga **Ukulandelana komsebenzi okuzugxilwa kuwa eThemu 3** Nika amagama bese ubeka izimo ngamaqoqo. Gxila ezinhlobeni zamacala akumumo ngamunye. Hlukanisa izimo ngokubuka ukuthi amacala ayindingila noma aqondile. Dweba indilinga, isikwele, unxande, nonxantathu. Qedela lengxenye yomsebenzi ngokwenza umsebenzi obhalwayo.	

IZIHLOKO	ITHEMU YOKU - 1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
3.4 **Okufana nse nxazombili**		**Okufana nse nxazombili** Thola lapho kuhamba khona umugqa ohlukanisa phakathi nendawo ngoku Imisebenzi yokugoqwa kwamaphepha goqa amaphepha **Okugxilwa kukho eThemu 2** ithuthukisa ulwazi lokuhlukanisa kabili kufane futhi kulingane nxazombili lufaka: • imisebenzi lapho upende omanzi unindwa ephepheni ngaphambi kokugoqa iphepha. • Imisebenzi lapho iphepha lisikwa noma lidatshulwa emgqeni eligoqwe kuwo.		**Okufana nse nxazombili** • Bona bese udweba umugqa ohlukanisa kabili ezintweni eziyizimo ezinhlangothi mbili eziyizibalo mdwebo nezingeyizo izibalo mdwebo. **Okugxilwa kukho eThemu 4** Imisebenzi yokubhala kufanele ifake izibonelo lapho: • Umugqa ohlukanisa kabili kufane nse nxa zombili akumele kube osuka phezulu uye phansi kuphela. • Umugqa ohlukanisa kabili kufane ingaba sezindaweni ezahlukene kwezinye izimo nima izinto.

ULWAZI JIKELELE LEBANGA 3 4. ISILINGANISO				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
4.1 **Isikhathi**	**Ukufunda Isikhathi** • Funda izinsuku kukhalenda • Faka izinsuku zokuzala, imigubho yokholo, izinsuku zokuphumula, izigameko zomlando, imicimbi yesikole kwikhalenda. • Yisho isikhathi ngamahora ayishumi nambili - amahora - isigamu sehora - ikota yehora - imizuzu Sebenzisa iwashi lezinti nelezinombolo nezinye izinto ezikhombisa isikhathi njengomakhalekhukhwini.	**Ukufunda Isikhathi** • Funda izinsuku kukhalenda • Faka izinsuku zokuzala, imigubho yokholo, izinsuku zokuphumula, izigameko zomlando, imicimbi yesikole kwikhalenda. • Yisho isikhathi ngamahora ayishumi nambili - amahora - isigamu sehora - ikota yehora - imizuzu Sebenzisa iwashi lezinti nelezinombolo nezinye izinto ezikhombisa isikhathi njengomakhalekhukhwini. **Bala ubude nokudlula kwesikhathi** Sebenzisa ikhalenda ukubala bese uchaza ubude besikhathi usebenzise izinsuku, amasonto noma izinyanga. • Sebenzisa iwashi ukubala ubude besikhathi ngamahora noma ngesigamu samahora.	**Ukufunda Isikhathi** • Funda izinsuku kukhalenda • Faka izinsuku zokuzala, imigubho yokholo, izinsuku zokuphumula, izigameko zomlando, imicimbi yesikole kwikhalenda. • Yisho isikhathi ngamahora ayishumi nambili - amahora - isigamu sehora - ikota yehora - imizuzu Sebenzisa iwashi lezinti nelezinombolo nezinye izinto ezikhombisa isikhathi njengomakhalekhukhwini. **Bala ubude nokudlula kwesikhathi** Sebenzisa ikhalenda ukubala bese uchaza ubude besikhathi usebenzise izinsuku, amasonto, izinyanga kanye noku: • ukushintsha usuka ezinsukwini uya emasontweni • Ukushintsha usuka emasontweni uya ezinyangeni. Sebenzisa iwashi ukubala ubude besikhathi ngamahora, ngesigamu samahora nangekota lamahora.	**Ukufunda Isikhathi** • Funda izinsuku kukhalenda • Faka izinsuku zokuzala, imigubho yokholo, izinsuku zokuphumula, izigameko zomlando, imicimbi yesikole kwikhalenda. • Yisho isikhathi ngamahora ayishumi nambili - amahora - isigamu sehora - ikota yehora - imizuzu Sebenzisa iwashi lezinti nelezinombolo nezinye izinto ezikhombisa isikhathi njengomakhalekhukhwini. **Bala ubude nokudlula kwesikhathi** Sebenzisa ikhalenda ukubala bese uchaza ubude besikhathi usebenzise izinsuku, amasonto, izinyanga kanye noku: • ukushintsha usuka ezinsukwini uya emasontweni • Ukushintsha usuka emasontweni uya ezinyangeni. Sebenzisa iwashi ukubala ubude besikhathi ngamahora, ngesigamu samahora nangekota lamahora

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
4.2 **Ubude**		**Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala ubude usebenzisa ukukala okungenasilinganiso njengezandla, amagxathu, ubude bepensela, izinto zokubala njll. • Chaza ubude bezinto eziphathekayo ngokubala usho nobude usebenzisa amayunithi angahleliwe. • Sebenzisa ulimi olukhuluma ngokuqhathanisa ubude; njengokuthi kude kuna, kufushane kuna, kuphakeme kuna, kubanzi kuna **Ukwethula Isilinganiso esingahlelekile** • Qagela, linganisa, hlela bese ubhala ubude usebenzisa amamitha (irula eliyimitha, intambo eyimitha) njengesikali esilinganisiwe sobude. • Qagela bese ukala ubude ngamasentimitha usebenzisa irula. (Akudingekile ukushintsha amasentimitha aye kumamitha.)	**Ukwethula Isilinganiso esingahlelekile** • Qagela, linganisa, hlela bese ubhala ubude usebenzisa amamitha (irula eliyimitha, intambo eyimitha) njengesikali esilinganisiwe sobude. • Qagela bese ukala ubude ngamasentimitha usebenzisa irula.	

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
4.3 **Isisindo**		**Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala isisindo usebenzisa isikali sokuzimelela kanye nokukala okungenasilinganiso njengamabhuloki, izitini njll • Sebenzisa ulimi ukukhuluma ngokuqhathanisa isisisindo njengokuthi kulula, kuyasinda, kulula kuna, kuyasinda kuna **Ukwethula Isilinganiso esihleliwe** • Qhathanisa, hlela bese ubhala isisindo sezinto ezithengiswayo ezinesisindo esibhaliwe esinangamakhilogramu, njengokuthi 2kg yempuphu ne 1kg kafulawa noma ngamagramu Isib. 500g zikasawoti • Uma sikhona isikali sasendlini yokugeza, abafundi bangazikala izisindo zabo besebenzisa isikali sasendlini yokugeza. Okulindelekile ukuba abafundi bafunde isisindo esisondelene nothi lwesikali.. bachaza isisindo sabo njengesicishe / sisondelene / siseduze / sikhudlwana / esifanayo (amakhiligramu) abawafunda esikalini. • Lapho kukhona izikali zokuzimelela ezikhombisa amagramu, abafundi bangakala isisindo noma izinto ezahlukene. (Akudingeki ukushinntsha amagramu abe amakhilogramu)		**Ukwethula Isilinganiso esihleliwe** Abafundi kufanele benze imisebenzi yokubhala ukuphetha lokhu, okufaka nokufundwa kwezithombe: • Imikhiqizo enesisisindo esibhaliwe kuyo • Izikali zasendlini yokugeza lapho uthi lukhomba amagabelo esikali.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
4.4 **umthamo**	**ISILINGANISO okungahlelekile** • Qagela, kala, qhathanisabese u hlela umthamo wezitsha (umthamo ongamumathwa isitsha uma sigcwele) usebenzisa izikali ezingenasilinganiso njengezipuni nezinkomishi • Chaza umthamo wesitsha ngokubala usho ukuthi kungena okungaki okuyizilinganiso ezingahleliwe ukugcwalisa isitsha Isib ibhodlela linomthamo wezinkomishi ezine. **Ukwethulwa kokukala Okuhleliwe** • Qagela, kala, qhathanisa, hlela bese uyabhala umthamo usebenzisa izikalo zamalitha, isigamu selitha nekota lelitha. - Usebenzisa amabhodlela angumthamo we 1 litha, noma izitsha ezinomthamo obhalwe ngamamililitha. Isib. Amakani esiphuzo. - Ujeke onamagabelo akhombisa amalitha, uhhafu welitha nekota yelitha - Ujeke onamagabelo akhombisa amamililitha - Izinkomishi zokukala kanye namathisipuni akhombisa umthamo. • Qhathanisa, hlela bese ubhala umthamo obhaliwe ezintweni ezipakishelwe ukudayisa lakusetshenziswe amalitha. Isibonelo 5 amalitha kapendi, 1 litha wesiphuzo, 2 amalitha ob noma ngamamililitha noma amamililithaIsib. 500 ml yobisi, 340ml yesiphuzo, 750ml yamafutha			**Ukwethulwa kokukala Okuhleliwe** Abafundi kufanele benze imisebenzi yokubhala ukuphetha lokhu, okufaka nokufundwa kwezithombe: • Imikhiqizo yokudayisa enomthamo obhaliwe kuzo ukuze bakwazi ukuzihlela ngokulandelana • Ojeke lapho okumumethwe kucishe kulingane namagabelo akhombisa 1 litha noma 2 amalitha noma isigamu selitha noma ikota lelitha • Ojeke lapho okumumethwe kucishekulingane namagabeloakhombisa amamililitha. Okulindelekile ukuthi abafundi abafunde ukufunda besondezela kumagabelo. Bachaze umthamo njengocishe / kusondele / kuthi ukuba ngaphezulu / ungaphezulu noma ngaphansi / noma olingana (amalitha) abakufanda kujeke.

IZIHLOKO	ITHEMU LOKU-1	ITHEMU LESI-2	ITHEMU LESI-3	ITHEMU LESI-4
	• Azi ukuthi inkomishi ekaliwe ingamamililitha angama -250 • Azi ukuthi isipuni singamamililitha ayisi -5 Akudingeki ukushintsha amagramu abe amakhilogramu			Akudingeki ukushinntsha amagramu abe amakhilogramu
4.5 **Ubude obungaphandle bento**			**Ubude obungaphandle bento** Phenya ubude obuzungeze izimo ezinhlangothi mbili nezinto ezinhlangothi ntathu kusetshenziswa ukuqhathanisa ngqo noma amayunithi angahleliwe.	
4.6 **Ububanzi bendawo**				**Ububanzi bendawo** Phenya ububanzi bendawo usebenzisa amathayela.

ULWAZI JIKELELE LEBANGA 3 5. UKUQOKELELWA KOLWAZI				
IZIHLOKO	**ITHEMU LOKU-1**	**ITHEMU LESI-2**	**ITHEMU LESI-3**	**ITHEMU LESI-4**
5.4 **Qoqa bese uhlele ulwazi**	**Izincomo:** Ukusebenzisa ulwazi oluphelele ukwakha ibar grafu.		**Izincomo:** Hlela kabusha ulwazi olunikiwe olusohlwini noma kumathalisi noma amathebula noma i bar grafu. Bhala ulwazi kwi bar grafu Phendula imibuzo ngolwazi olukwi bar grafu.	
5.5 **Okumele Ulwazi**	Qoqa ulwazi ngekilasi noma nge-sikole bese uphendula imibuzo ebuzwe uthisha.			
5.6 **Hlaziya bese uhumusha ulwazi**	Sebenzisa amathalisi ukubhala ul-wazi ngezigaba zalo ezinikiwe kanje: • amathebula • Bar grafu Xoxa bese uphendula imibuzo ngolwazi olukumathebula nakwi bar grafu.	Hlaziya okumele ulwazi okunikiwe. **Izincomo** • Abafundi abenze okungenani eyo-dwa igrafu yezithombe okukodwa nokukodwa okuhambisanayo. • Okungenani eyodwa ibar grafu.		Hlaziya okumele ulwazi olunikiwe. **Izincomo** • Abafundi abenze okungenani eyo-dwa igrafu yezithombe okukodwa nokukodwa okuhambisanayo. • Okungenani eyodwa ibar grafu.

3.5 AMANOTHI ACHAZAYO KANYE NOMHLAHLANDLELA WOKUFUNDISA

Amathebula angezansi anikeza uthisha lokhu:

- Ingxenye yolwazi nezihloko kw iBanga ngalinye neThemu ngayinye;
- Ulwazi namakhono okuphakanyisiwe okuzogxilwa kukho eThemu ngayinye;
- Amanothi achazayo nomhlahlandlela wokufundisa;
- Isikhathi esabelwe isihloko ngasinye sezifundo ezethulwa nge 1hora namaminithi angama - 24.

3.5.1 AMANOTHI ACHAZAYO: IBANGA 1

ITHEMU YOKU-1 YEBANGA LOKU- 1 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANO BAZO
Ngethemu yokuqala isikhathi sisetshenziselwa ukuthuthukisa ulwazi lokuqala lwezinombolo. Amakhono okuqalwa ngawo awokuthuthukiswa kwamaphethini, indawo nesimo, ISILINGANISO nolwazikha isisekelo samakhono okufunda ngokuvulelekile namakhono ezinombolo ngokukhethekile. **Ukuqondanisa** Ukuqondanisa kuholela ekuqondeni ulwazi lokufunda ukuqondanisa okukodwa nokukodwa okuhambisanayo, okwakha isisekelo sokuqhathanisa inani lezinto eqoqweni. Uma umfundi ekwazi ukubona “okufanayo”, kwenza kubelula ukuqondanisa amasethi amabili. Ukufanisa kuyisiqalo sokwazi ukugcina ulwazi. Ukugcina ulwazi kuyikhono elibalulekile ekulinganiseni, inombolo nendawo nesimo. **Ukuhlela** Uma kuhlelwa, abafundi babheka okufanayo nokwehlukile. Abafundi babuye bathuthukise ukukwazi ukuchaza nokukhomba. Ukuchaza kusho ukuthi abafundi bangakwazi ukubona nokusho izinto ezibazungezile. Ukukhomba kusho ukuthi abafundi bangakwazi ukuthatha into uma ichaziwe. Abafundi bakhomba ngokwezakhiwo ezithile. Abafundi bahlela izinto ngokobungako, umbala, isimo, ubude, isisindo, umthamo nokumumethwe. Ukuhlela kwenziwa ngoku: • Uk ukuqokelelwa kolwazi lwez izinto zansuku zonke; • Izimo ezisejiyometri nezinto eziphathekayo kwisimo nendawo; kanye • Izakhiwo zezinto zokulinganisa. **Ukuqhathanisa** Uma abafundi beqhathanisa izinto eziphathekayo babhekisisa okwenza umehluko phakathi kwezinto ezimbili. Abafundi bangagxila kulokhu • Kukhulu noma kuncane; • Kuyasinda noma kulula; • Kude noma kufishane; • Kuyashisa noma kuyabanda;

ITHEMU YOKU-1 YEBANGA LOKU- 1

1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANO BAZO

- Akukho noma kugcwele;
- Kuningi noma kumbalwa; kanye
- Okokuqala, okokugcina noma kuphakathi.

Ukufunda ukuqhathanisa kuyinto okugxilwa kuyo:-

- Imisebenzi yokuqala yokulinganisa;
- Imisebenzi yokuqala yezimo nendawo (kufaka imisebenzi yesikhundla) kanye
- nemisebenzi yokuqala uma kwenziwa amaphethini.

Emisebenzini yezinombolo, abafundi baqondanisa izinto eziphathekayo ngamaqoqo ahlukene. Bafunda ukubona amaqoqo anezinto ezilinganayo ngenani, nokuhlukanisa amaqoqo anezinto eziningi noma ezimbalwa kunezinye.

Ukuhlela ngokulandelanisa

Ukuhlela ngokulandelanisa kuyisisekelo somsebenzi wezinombolo. Ukubeka nokubala izinto ngokulandelana kwazo kusiza abafundi abasebancane ukuqinisekisa ukuthi into bayibala kanye. Ukubeka izinto ngokulandelana kwacha isisekelo solwazi lokulandelanisa izinombolo.

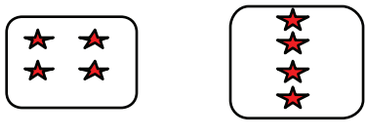
Umsebenzi wokuqala wamaphethini ofaka izimo noma izinto usiza abafundi bagxile ekulandelaniseni izinombolo. Abafundi bazolisebenzisa lelikhono ukwenza amaphethini.

Ukuqagela inani lezinto eqoqweni

Ukuqagela inani lezinto eziyiqoqo ngaphandle kokuzibala. Lokhu kusiza abafundi ukubona iqoqo elincane njengento eyodwa.

Lokhu kunika abafundi ulwazi lokuqala oluyisisekelo sokusebenza ngezinombolo.

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.1 Bala izinto	Bala izinto ngokuyikho kufika ema -50. Nikeza inombolo oyiqagele ngokusondelele nengatholakala ngokubala.	Bala izinto ngokuyikho kufika e -10. Nikeza inombolo oyiqagele ngokusondelele nengatholakala ngokubala.	Ukubala kusiza abafundi ukuthuthukisa ukwazi ubungako bezinombolo bese kwenza isisekelo sokubala ngezinombolo eziphelele. Ngethemu yokuqala abafundi bathuthukisa lamakhono: • Ukubala konke • Ukubala ngokuqhubeka • Indlela yokusebenza kwezinombolo ezijwajelekile • Ukusebenza ngokubhaliwe Ngethemu yoku - 1 ukubala kugxila ekuthuthukiseni amakhono okubala. Ukuthuthuka kwamakhono okubala kubasiza ukuba: • Ukubala izinto ezingamaqoqo nezingewona amaqoqo; • Ukubalal uyaphambili nasemumva; • Ukubala ngokwenza; • Ukubalala ngokulandelanisa kumugqa wezinombolo; • Ukuthuthukisa ulwazi lobungako benombolo ngokuzihlela nangokuziqhathanisa; kanye • Ukuhlawumbisela nokuqagela. Ukubala izinto Ngaphambi kokuba abafundi babale izinto badinga amathuba okubala ngokwenza ngokuphindelela bekhuluma. Abafundi kufanele bathole uhla lwezinombolo ngamagama ngokulandelana: kunye, kubili, kuthathu kuze kufike kuma -20. Khuthaza abafundi ukusho imilolozelo enezinombolo badlale nemidlalo ezogxilisa ukushiwo kwezinombolo. Lelikhono lokubala ngokuphimisa libalulekile ukuthuthukisa ulwazi lwezinombolomagama kanye nomuzwa wesigqi / iphethini ezinombolweni. Abafundi bazobe sebebala into ngayinye baqondanise igama lenombolo nenani lezinto. Lokhu kusho ukuthinta nokunyakazisa into ube usho igama lenombolo. Kubalulekile ukuthi abafundi baqonde ukuthi inombologama yokugcina isho inombolo yento yokugcina eqoqweni. Kumele baqonde ukuthi inombolo magama yokugcina ikhombisa inani lezinto eqoqweni noma isikhundla seqoqo. Akubona bonke abafundi abakwazi ukubala ngokuphimisa izinombolomagama ngendlela ezilandelana ngayo abangakwazi ukunikeza umqondo entweni ebalwayo. Bangeqa izinombolo bese bethi zine izinto zokubala kodwa zibe zinhlanu.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.1 **Bala izinto**	Bala izinto ngokuyikho kufika ema -50. Nikeza inombolo oyiqagele ngokusondelele nengatholakala ngokubala.	Bala izinto ngokuyikho kufika e -10. Nikeza inombolo oyiqagele ngokusondelele nengatholakala ngokubala.	Kubalulekile ukuthi abafundi babale inombolo efanayo yezinto ezihlukene. Isibonelo: • Bala izinto eziyisithuph zokubala • Letha amapensela ayisithupha • Bala izinkinobho eziyisithupha Ukulondoloza / Ukugcina Abafundi bazoqala ukubona uma bebala inombolo yezinto, ukuthi inamba ayiphazamiswa ubungako noma isikhundla ekuyo. Omunye angabuza: zingaki izinkanyezi ekhadini ngalinye?  Isikhumdla noma ukuhlelwa kwezinkanyezi akufani kodwa inombolo yezinkanyezi ilingana ncimishi. Kubalulekile ukuthi uma ubala izinto eziphathekayo, abafundi babone izinto ezimbalwa ngaphandle kokubala. Isibonelo, ukubona • Okuhlanu, njengenombolo yeminwe emihlanu esandleni. • Izinto zokubala ezintathu, zihlelwe noma ngayiphi indlela. • Okukodwa ukuya kokuyisithupha, kubukwa indlela okuhlelwe ngayo amachashazi edayisini • Lokhu kwaziwa njengokuqagela inani lezinto eqoqweni Ngakho ke: Ulwazi lwezinombolo eziyisisekelo luthuthukiswa ngokubala izinto eziphathekayo. Abafundi bafunda: • Ukuhlanganisa amagama ezinombolo neqoqo lezinto; • Ukwakha isithombe sengqondo ukuthi inombolo isho ukuthini okuwukuthi inkulu kangakanani; kanye • Ukuthi igama lenombolo lento yokugcina ebaliwe imela inombolo yeqoqo lezinto.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.1 Bala izinto	Bala izinto ngokuyikho kufika ema -50. Nikeza inombolo oyiqagele ngokusondelele nengatholakala ngokubala.	Bala izinto ngokuyikho kufika e -10. Nikeza inombolo oyiqagele ngokusondelele nengatholakala ngokubala.	Imiyalelo nemibuzo yokulekelela ukubalwa kwezinto • Bala 10 izinduku zokubala. Zihlele uzibeke ngomugqa. • Phinda uzihlele ngenye indlela izinduku bese uyazibala. Inamba isafana na? • Bala lezi zivalo zamabhodlela ngaphandle kokuzithinta. • Ngabe inamba isafana yini? • Mangaki amakhilayoni ocabanga ukuthi akhona? • Maningi noma ambalwa kunalokho obokucabanga? • Wazi kanjani ukuthi unaleyo nombolo? • Wazi kanjani ukuthi ubale wonke amakhilayoni? • Ungayihlola kanjani impendulo yakho? Ukudlulela emsebenzini obhalwayo Abafundi kudingeka banikwe amathuba okubala imidwebo yezinto. isibonelo: Kungaki?  Ukubala uqhubeka Uma abafundi sebakwazi ukubala ngokuzethemba zonke izinto kusukela kweyodwa, sebengabala ebaqhubeka kusuka eqoqweni abanalo. isibonelo: Yalela abafundi babale izinto eziyisikhombisa bese, beqala kweyesikhombisa, balale ezintathu ngaphezulu baze bafike kweziyi 10. Ukubala uqhubeka yiqhinga elisebenza kangcono kunokubala konke futhi abafundi bazobenzisa ukubala beqhubeka uma benza izibalo. Izinsizakufunda: Kuyasiza ukwakha iqoqo elinezinto ezingafani abafundi abangazisa njengezinto zokubala.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.1 Bala izinto	Bala izinto ngokuyikho kufika ema -50. Nikeza inombolo oyiqagele ngokusondelele nengatholakala ngokubala.	Bala izinto ngokuyikho kufika e -10. Nikeza inombolo oyiqagele ngokusondelele nengatholakala ngokubala.	Isibonelo: • Izinti zikamentshisi • izinti za -ayisikhilimi • izinhlamvu zepentshisi • ubhontshisi • izivalo zamabhodlela	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.2 **Ukubala uye phambili ubuye uye emumva**	**Ukubala uye phambili ubuye uye emumva** ngakunye kusukela kunoma yiphi inombolo ephakathi kuka 0 ne 100 **Ukubala uye phambili kanje** • bala ngama 10 ukusuka kunoma iyiphi inombolo ebala ngama 10 phakathi kuka 0 no 100 • bala ngoku 5 ukusuka kunoma iyiphi inombolo ebala ngoku 5 phakathi kuka 0 no 100 • bala ngoku 2 ukusuka kunoma iyiphi inombolo ebala ngoku 5 phakathi kuka 0 no 100	**Ukubalal uyaphambili ubuye uye emumva** ngakunye kusukela kunoma iyiphi inombolo ephakathi kuka 1 no 20	**Ukubala uyaphambili ngakunye** Ukubala ngokuphimisela kuyisinyathelo esisemqoka uma usho amagama ezinombolo ngokulandelana. Uma abafundi bekwazi ukwenza loku, akusho ukuthi bayabazi ubungako benombolo abayishoyo. Abukho ubudlelwano phakathi kwenombolo nenani noma ubungako benombolo. EThemu 1 kulindeleke ukuthi abafundi bakwazi ukubala beyaphambili nasemumva ngakunye kuze kufike kuma 20. Ukubala uya phambili nasemumva kungenziwa abafundi bonke ekilasini. Makwenziwe isiqinesikiso sokuthi abafundi abasho nje bengaqondi ukuthi bathini. Emaqenjini okugxilwe kuwo nasemsebenzini wokuzimela lemsebenzi elandelayo ingenziwa ukunika umqondo ekubaleni: • Qala kokubili ubale uye kokuyisishiyagalombili • Bala kusukela kokune uya e 10 • Bala kusukela kokubili kuya kokuyisishiyagalombili. Zingaki izinombolo ozibalile? **Ukubala kufinyelela e 10** Abafundi bazoqala ukubala kufinyelela eshumini bese benza bephinda amagama ezinombolo ngokulandelana. Abafundi bangakhathala ukubala ngokuphimisela badinga ukubala besebenzisa izindlela eziningi ezahlukene, ngaphandle kwaloko bayasho nje okungenamqondo. Ukubala ngokuphimisela kudinga ukulekelelwa ngokufunda izimpawu zezinombolo nokubala izinto eziphathekayo. Abafundi badinga ukuboniswa imifanekiso yezinombolo ngokulandelana. Lemifanekiso elandelayo ingasetshenziswa: • Ubuhlalu bokubala • I-abhakhasi • Umugqa wezinombolo Ekuqaleni umugqa wezinombolo kufanele ukhombise zonke izinombolo, emuva kwalokho ungasetshenziswa unezinombolo ezingakhonjisiwe noma ezeqiwe. Lokhu kusho ukuthi abafundi kufanele bazazi izinombolo ngokulandelana ukuze bakwazi ukugcwalisa izikhala.	

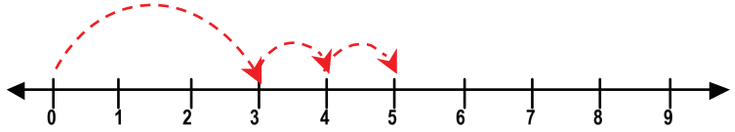
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<tr><th>IZIHLOKO</th><th>ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA</th><th>ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1</th><th>AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI
(ezifundweni ze 1 ihora nemizuzu engu -24)</th></tr>
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<td>1.2
Ukubala uye phambili ubuye uye emumva</td>
<td>Ukubala uye phambili ubuye uye emumva ngakunye kusukela kunoma yiphi inombolo ephakathi kuka 0 ne 100
Ukubala uye phambili kanje
• bala ngama 10 ukusuka kunoma iyiphi inombolo ebala ngama 10 phakathi kuka 0 no 100
• bala ngoku 5 ukusuka kunoma iyiphi inombolo ebala ngoku 5 phakathi kuka 0 no 100
• bala ngoku 2 ukusuka kunoma iyiphi inombolo ebala ngoku 5 phakathi kuka 0 no 100</td>
<td>Ukubalal uyaphambili ubuye uye emumva ngakunye kusukela kunoma iyiphi inombolo ephakathi kuka 1 no 20</td>
<td>Ukubala uya emumva
Ukubala uya emumva kuyikhono elibukhuni kubafundi kanti ukulokhu benza bephindelela kuyadingeka. Qala ukubala uye emumva kusukela enombolweni abafundi abayijwayele,isibonelo sukela ku 2 uye emumva, uma sebemazi u 3 sukela kuye uye emumva njll.
Ukubala kufinyelelwa ema 20
Ukubala udlule eshumini kungadinga abafundi ukuba basho kulandelana kwezinombolo emva kukathisha. Kubaluleke kakhulu ukukhuthaza abafundi ukuthi baqale ukubala kunoma iyiphi inombolo. Ukuqala koku -8 kuthanda ukubanzima kunokuqala koku -1. Abafundi bazolisebenzisa lelikhono uma sebebala beqhubeka lapho behlanganisa.
Izinsiza kufundisa
• Ubuhlalu bokubala kufinyelele ku 20
• I-abhakhasi
• Igridi yezinombolo isiza ukuthuthukisa izinga lokufunda imininingwane ethebulini. Ngoba abafundi babala bafinyelele eshumini, igrid kufanele iveze kuphela leminingwane:
<table>
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<tr><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td><td>17</td><td>18</td><td>19</td><td>20</td></tr>
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• Umugqa wezinombolo okhombisa kufinyelele ema-20</td>
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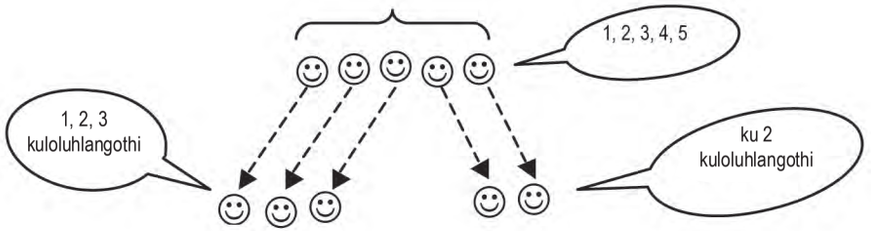
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.3 Izimpawu zezinombolo namagama ezinombolo	Khomba, bona bese ufunda izinombolo • Khomba, bona bese ukufunda izimpawu zezinombolo oku 1kuya e 100 • bhala izimpawu zezinombolo oku 1kuya kuma 20 • Khomba, bona bese ufunda amagama ezinombolo oku 1 kuya e- 10 • Bhala amagama ezinombolo oku 1 kuya e- 10	Khomba, bona bese ufunda izinombolo • Khomba, bona bese ukufunda izimpawu zezinombolo oku 1kuya e 20 • bhala izimpawu zezinombolo oku 1 kuya e- 5 • Khomba, bona bese ufunda amagama ezinombolo oku 1 kuya e- 5 • Bhala amagama ezinombolo oku 1 kuya e -5	Ukufunda nokubhala izimpawu zezinombolo namagama. Abafundi kufanele bafunde ukuthi kwenziwa kanjani uku: • Bhala izimpawu zezinombolo namagama • Ukufunda izimpawu zezinombolo • Ukusho izinombolo Ukufunda nokubhala izimpawu zezinombolo namagama kufanele kuxhumane nemisebenzi yokubala.Abafundi kufanele banikezwe amathuba ukuqondanisa uphawu lwenombolo negama lenombolo ezintweni eziqoqiwe abazibalayo. Ngalendlela abafundi bahlanganisa uphawu lenombolo, igama lenombolo, okumele inombolo nokuchazwa inombolo. Eminye imisebenzi Ukuzijwayeza ukubhala Abafundi bangazijwayeza ukubhala izimpawu zezinombolo ngezindlela ezehlukene ngoku: • Ngokubhala ngaphezu kwezinombolo • Ukubhala ‘ukuhlanganisa amachashaza’ imisebenzi enemigqa elandela ukubhaleka kwenombolo • Ukubhala esihlabathini • Ukubhala ebhodini noma kusimende • Ngokupenda • Ukuthunga izinombolo kusetshenziswa iwuli. Konke loku kugcizelela lapho kuqala khona ukubhalwa kwenombolo. • Ngokubhala ngaphezulu kwenombolo enkulu eyakhiwe ngephepha elinamathiselwe isihlabathi noma endwangwini Ukufunda izinombolo Lokhu kungenziwa ngoku: • Ukukhomba inombolo emugqeni wezinombolo noma kugridi yezinombolo • Ukufunda amakhadi ezinombolo Ukuqondanisa izimpawu zezinombolo eqoqweni lezinto Kungenziwa kanje: • Ukuqondanisa inombolo nenani lezinto • Ukubala iqoqo lezinto ngokukhetha ikhadi lenombolo elifanele lenani lezinto. • Ukubala izinto ezisesithombeni bese ubhala upawu lwenombolo.	

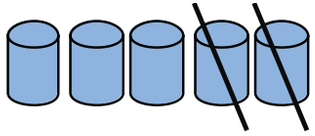
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.4 **Chaza, qhathanisa bese uhlela izinombolo**	Chaza, uqhathanise, bese uhlela izinto kufinyelela e- 20 • Chaza bese uqhathanisa iqoqo lezinto ngoku: ningi, okumbalwa, okufanayo • Chaza bese uhlela iqoqo lezinto kusukela kokuningi kuya kokumbalwa nokumbalwa kuya kokuningi Chaza, uqhathanise, bese uhlela izinombolo kufinyelela e 20. • Chaza bese uqhathanisa izinombolo eziphelele ngokuthi encane kuno. enkulu kune, okuningi kuno,okumbalwa kuno,kulingana ne • Chaza bese uhlela izinombolo kusukela kwencane kakhulu kuye kufike kokukhulu kakhulu kanye nokukhulu kakhulu kuya kokuncane kakhulu	Chaza, uqhathanise, bese uhlela izinto kufinyelele e 5 • Chaza bese uqhathanisa amaqoqo ezinto ngoku: ningi, kuncane, okuningi kakhulu, okuncane kakhulu, kulingana, kuningi ngango, akufani. • Chaza bese uhlela iqoqo lezinto kusukela kokuningi kuya kokumbalwa nokumbalwa kuya kokuningi • Uhla lwezinto ezifinyelela esihlanwini. Chaza, uqhathanise bese uhlela izinombolo kufinyelela e- 5. • Chaza bese uqhathanisa izinimbolo eziphelele kufinyelela e- 5 usebenzisa ulimi. Isib. okuncane kuna, okukhulu kuna, okuningi kuna, okumbalwa kuna • Chaza bese uhlela: - Izinombolo eziqala kwezincane kakhulu kuya kwezinkulu kakhulu nakwezinkulu kakhulu kuya kwezincane kakhulu - Usebenzisa ulumi isib. Ngaphambi, emumva, maphakathi nendawo/ phakathi naphakathi	Ukuqhathanisa nokuhlela izinombolo kusiza abafundi ukuhlaziya ukuqonda nobungako bezinombolo. Kuzobasiza ukuthuthukisa umqondo wokuthi inkulu noma incane kunezinye. Uma abafundi beqonda ubungako bezinombolo, bazothola izimpawu zokubala zilula. Emabangeni aphansi loku kubizwa ngokuthi ukwakheka kwenombolo. Amakhono okubala abalulekile ukuqhathanisa nokuhlela izinombolo. Ukuhlelwa kwezinombolo kufaka: • ukufunda ngezinombolo ezimele inani lenombolo (cardinal numbers) • Usebenzisa, ukufunda nokubhala amagama nezimpawu zezinombolo • Ulumi lokuqhathanisa izinombolo Ukuqhathanisa inombolo yezinto Loku kwenzeka kaningi ngokusebenzisa okukodwa kokukodwa okuhambisanayo. Abafundi babala izinto eziqoqiwe bese beqondanisa amagama ezinombolo nezinto ngokukodwa nokokukodwa okuhambisanayo. Ukuqhathanisa izinto eziqoqiwe kuncike olwazini lokubala lwabafundi. Kubalulekile ukugxila olwazini loku ‘kuningi no kuncane’ uma uqhathanisa amanani. Uma uqhathanisa izinto ulimi lokuqhathanisa luyathuthuka. Isibonelo: okuningi njenge, okuyinani elilingana noku, kulingana ne, kuningi kune, kuncane kune, kumbalwa kune Ukuhlela amaqoqo ezinto Ekubaleni nokuqhathanisa izinto ezingamaqoqo amabili, abafundi bathola bese befunda ubudlelwano obubili obubalulekile: • Izinto ezingamaqoqqo amabili ziyalingana uma zinenani lezinto ezilinganayo yize okuqoqiwe kungahleliwe ngendlela efanayo. • Ukubala izinombolo kumela ukulandelana kwezinombolo eziya ngokukhula ngokukodwa njalo, isib. Okuhlanu kuza emva kokune, njengoba izinto ezinhlanu eziqoqiwe ziningi ngeyodwa kunezine noma iqoqo lezinto ezine lincane ngeyodwa kwezinhlanu. Ukuhlela nokuqhathanisa izinombolo Uma abafundi behlela izinombolo, bangasebenzisa ukulandelana kwezinombolo ukubona ukuthi iyiphi inombolo enkulu. Isibonelo, bangathi oku 5 kukhulu kuno 2 ngoba oku 5 kuza emva koku 2. Abafundi badinga ukubona ukuxhumana ekubaleni izinto bese beqhathanisa iqoqo lezinto eziyisishiyagalolunye nalelo elinezinto ezimbili. EBangeni lesi 2 nele 3abafundi bazohlela baqhathanise izinombolo ngokuthi bachaze ubungako bezinombolo. Abafundi bangahlela basebenzisa izithombe ezahlukene.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.4 **Chaza, qhathanisa bese uhlela izinombolo**	Chaza, uqhathanise, bese uhlela izinto kufinyelela e- 20 • Chaza bese uqhathanisa iqoqo lezinto ngoku: ningi, okumbalwa, okufanayo • Chaza bese uhlela iqoqo lezinto kusukela kokuningi kuya kokumbalwa nokumbalwa kuya kokuningi Chaza, uqhathanise, bese uhlela izinombolo kufinyelela e 20. • Chaza bese uqhathanisa izinombolo eziphelele ngokuthi encane kuno. enkulu kune, okuningi kuno,okumbalwa kuno,kulingana ne • Chaza bese uhlela izinombolo kusukela kwencane kakhulu kuye kufike kokukhulu kakhulu kanye nokukhulu kakhulu kuya kokuncane kakhulu	Chaza, uqhathanise, bese uhlela izinto kufinyelele e 5 • Chaza bese uqhathanisa amaqoqo ezinto ngoku: ningi, kuncane, okuningi kakhulu, okuncane kakhulu, kulingana, kuningi ngango, akufani. • Chaza bese uhlela iqoqo lezinto kusukela kokuningi kuya kokumbalwa nokumbalwa kuya kokuningi • Uhla lwezinto ezifinyelela esihlanwini. Chaza, uqhathanise bese uhlela izinombolo kufinyelela e- 5. • Chaza bese uqhathanisa izinimbolo eziphelele kufinyelela e- 5 usebenzisa ulimi. Isib. okuncane kuna, okukhulu kuna, okuningi kuna, okumbalwa kuna • Chaza bese uhlela: - Izinombolo eziqala kwezincane kakhulu kuya kwezinkulu kakhulu nakwezinkulu kakhulu kuya kwezincane kakhulu - Usebenzisa ulumi isib. Ngaphambi, emumva, maphakathi nendawo/ phakathi naphakathi	Abafundi futhi bangahlela izinombolo ngokusebenzisa umugqa wezinombolo. isibonelo: • Thatha inombolo 3 uyibeke emgqeni wezinombolo • Khetha inombolo eza emumva kuka 4 uyibeke endaweni yayo efanele emugqeni wezinombolo • Khetha inombolo ephakathi kuka 3 no 5 uyibeke endaweni yayo efanele emugqeni wezinombolo • Khetha inombolo eza ngaphambi kuka 2 uyibeke endaweni yayo efanele emugqeni wezinombolo • Khetha inombolo eza ngaphambi kuka 3 uyibeke endaweni yayo efanele emugqeni wezinombolo Amakhadi ezinombolo **Isibonelo:** Abafundi bangabeka amakhadi ngokulandelana.  Ukudlulela emsebenzini obhaliwe Abafundi bangaphetha ulwazi lwabo ngokuqedela umsebenzi ezincwadini zabo zokusebenzela. Loku kungenziwa ngesikhathi somsebenzi wokuzimela. **Izinombolo ezejwayelekile nezinombolo ezisho isikhundla** (cardinality and ordinality) Izinombolo ezejwayelekile zisho inani lezinto eqoqweni. Izinombolo ezisho isikhundla sento eqoqweni. Ukuxhumana phakathi kwezinombolo ezejwayelekile kanye nezisho isikhundla kufanele kwakhiwe. Abafundi bazokubona lapho bebala iqoqo lezinto bese bazi ukuthi uma bethinta into yesihlanu bazobe sebebale izinto eziyisihlanu. Izinombolo ezisho isikhundla zizokwenziwa kuphela ngethemu yesi 4.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
UKUXAZULULA IZI NKINGA EZISESIMWENI ESIJWAYELEKILE				
1.6 **Amasu okuxazulula izinkinga**	Sebenzisa amasu alandelayo uma uxazulula izinkinga bese uchaza izixazululo: • Izinto eziphhathekayo isib. Izinto zokubala • Izithombe zokwakha izibalo zengxoxo • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulingayo • Imigqa yezinombolo	Sebenzisa amasu alandelayo uma uxazulula izinkinga bese uchaza izixazululo: • Izinto eziphhathekayo isib. Izinto zokubala • Izithombe zokwakha izibalo zengxoxo • Imigqa yezinombolo ilekelelwa izinto eziphathekayo isb. Ubuhlalu bokubala	Kulethemu abafundi bazoqala ukuxazulula izinkinga zamagama besebenzisa lamasu alandelayo: • Izinto eziphathekayo • imidwebo • imigqa yezinombolo **Imidwebo nezinsiza kufundisa eziphathekayo** Abafundi bazodweba izithombe besebenzisa izinto eziphathekayo ukuxazulula izinkinga. Ngasekupheleni kwethemu abafundi bangadweba izithombe ezinezinombolo ukuchaza ukusebenza nezixazululo. Kubalukekile ukuthi izithombe noma imidwebo ibe nezinombolo ukuchaza ukusebenza nezixazululo nge: • ngezinto ezikhombisa igabelo elimele into eyodwa • izinombolo **Imigqa yezinombolo** Ukusebenzisa imigqa yezinombolo kuzobasiza ukubala nokubhala imicabango yabo ukulandelela kulokho abasukele kukho. Kuphinde kuvumele abafundi ukuthi babhale izithombe abangazisebenzisa ukuchaza ukuthi bazixazulule kanjani izinkinga. Kulethemu abafundi bazothulelwa umugqa wezinombolo baqale nokusebenzisa loku uma besebenzisa amaqhinga okubala. Uma uqala ukusebenzisa umugqa wezinombolo ubuhlalu obusentanjeni bungabekwa ngenhla noma ngezanzi ukulekelela abafundi ekubaleni. Ngaphambi kokuba abafundi basebenzise umugqa wezinombolo njengeqhinga lokubala kufanele bayisebenzisele: • ukubala uya phambili nasemuva • ukufunda izimpawu zezinombolo • ukubhala izimpawu zezinombolo • ukubeka izinombolo esikhundleni esifanele emugqeni wezinombolo • ukuhlela nokuqhathanisa izinombolo Uma usebenzisa umugqa wezinombolo njengesithombe sokubala, ulwazi loku ‘gxuma’ lungafundwa ngokusebenzisa iminwe noma ngokwakha umugqa ngaphandle noma ukugxuma usuka kwenye inombolo uya kwenye. Lezizinhlobo zemisebenzi zisiza abafundi ukubona ukuthi zikuphi izinombolo kwezinye. Kufanele bakwazi ukuthi: ukusuka koku 3 kuya 5 kulingana nokugxuma ka 2”. Abafundi kufanele banikezwe amathuba okuqagela ukuthi kugxunywe kangaki, kusuka ku 2 kuya 5.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.6 **Amasu okuxazulula izinkinga**	Sebenzisa amasu alandelayo uma uxazulula izinkinga bese uchaza izixazululo: • Izinto eziphhathekayo isib. Izinto zokubala • Izithombe zokwakha izibalo zengxoxo • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulingayo • Imigqa yezinombolo	Sebenzisa amasu alandelayo uma uxazulula izinkinga bese uchaza izixazululo: • Izinto eziphhathekayo isib. Izinto zokubala • Izithombe zokwakha izibalo zengxoxo • Imigqa yezinombolo ilekelelwa izinto eziphathekayo isb. Ubuhlalu bokubala	Isibonelo sokuthi abafundi bangawusebenzisa kanjani umugqa wezinombolo kulethemu: Kunabafana abathathu namantombazane amabili abenza izifundo zobuchwepheshe ezengeziwe esikoleni. Bangaki abafundi abenza isifundo sobuchwepheshe? Abafundandi bangasebenzisa umugqa wezinombolo ngalendlela ukufinyelela empendulweni.  Bheka amanothi engezansi ‘izindlela zokwenza noma amaqhinga’ ukwethula umugqa wezinombolo. Khumbula ukuthi abafundi bangaxazulula izinkinga ngendlela engalindelwe uthisha. Isibonelo, ukuxazulula inkinga engenhla, abafundi bangakhetha ukuqala ukubala ngenombolo yamantombazana, 2, bese befaka ama 3. Indlela esetshenziseswa abafundi ingashintsha uma kuqhubeka unyaka njengoba bejwayela abafundi ukuxazulula izinhlobo zezinkinga, nolwazi lwabo lwezinombolo luthuthuka.	

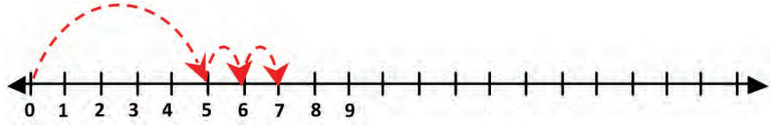
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.7 **Ukuhlanganisa nokususa**	Xazulula izikinga zezibalo zamagama ezimweni ezijwayelekile bese uchaza izixazululo ngokusebenzisa ukuhlanganisa nokususa okunezixazululo ezifinyelela kuma - 20.	Xazulula ngokwenza izinkinga zezibalo zamagama ezimweni ezijwayelekile bese uchaza izixazululo zezinkinga ezifaka ukuhlanganisa nokususa nezixazululo ezifika kokuyisihlanu.	Izibalo zamagama zijwayele ukusetshenziswa njengendlela yokuqala yokusebenzisa izimpawu zezibalo. Abafundi baqala ngokusebenzisa izinto eziphathekayo ukuxazulula izinkinga; okube sekuthuthukisa: • Ukudweba izithombe; • Ukudweba izithombe nokubhala izinombolo ukuchaza izimpawu ezisebenzile; noku • sebenzisa izinombolo kuphela. Isibonelo: Kunabantwana abahlanu kuginqi-gonqo. Abathathu babo basohlangothini olulodwa. Bangaki abakolunye uhlangothi? Ngethemu yokuqala abafundi bengabhala izinkinga zamagama ngalendlela. **Amaqhinga okubala** Usebenzisa ukubala ukuxazulula inkinga kaginqi-gonqo  Lapha abafundi babala iqoqo ngalinye kanye neqembu lonke seliphelele, ngakho-ke babala okungenani kathathu. Ukusebenzisa ukubala ukuxazulula inkinga kaginqi-gonqo. Abafundi babala baqhubeke ukusukela kokuthathu baze bafike kokuhlanu. Leli iqhinga elisebenza kahle. “ngiyazi ukuthi kunezingane ezintathu uma kungena enye kwenza ezine, kuphinde kungene enye kwenze ezinhlanu. Zimbili izingane ezikolunye uhlangothi”. *Ukusebenzisa ukuhlanganisa nokususa kusetshenziswa izinsizakufunda eziphathekayo*	

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1.7 **Ukuhlanganisa nokususa**	Xazulula izikinga zezibalo zamagama ezimweni ezijwayelekile bese uchaza izixazululo ngokusebenzisa ukuhlanganisa nokususa okunezixazululo ezifinyelela kuma - 20.	Xazulula ngokwenza izinkinga zezibalo zamagama ezimweni ezijwayelekile bese uchaza izixazululo zezinkinga ezifaka ukuhlanganisa nokususa nezixazululo ezifika kokuyisihlanu.	Abafundi basebenzisa izinto eziphathekayo ngezindlela ezithile ukuthola impendulo. Abafundi basebenzisa izinto eziphathekayo ukwakha umqondo wokuhlanganisa nokususa besebenzisa izinto abangazithinta, bazibambe futhi bezinyakazisa. Indlela abafundi abasebenzisa ngayo izinto eziphathekayo ilawulwa ingxoxo yesibalo. **Ukubhala izithombe zokuhlanganisa nokususa** • **Ukubhala besebenzisa izinto eziphathekayo** Abafundi bangasebenzisa izinto eziphathekayo ukubala konke noma bebala beqhubeka. Yize abafundi bengakwazi ukusebenzisa lamaqhinga ngokudweba izithombe ukuveza imicabango yabo, kanye namaqhinga okubala nezixazilulo. • **Ukubhala kusetshenziswa izithombe kuphela** **Isibonelo**  **Ukubhala kusetshenziswa izithombe nezinombolo** Ukuze abafundi basebenzise izithombe nezinombolo ukuveza imicabango yabo badinga uku: • Ukwazi ukubona izinombolo 1-5 • Ukubala izinto ezinhlanu bese bekwazi ukubona ukuthi oku 5 kumele izinto ezibalwe zanhlanu. • Ukubhala izinombolo • Ukuhlela nokuqhathanisa izinombolo Kunezingane ezinhlanu ezigibele uginqi-gonqo. Abathathu bagibele ohlangothini elilodwa. Bangaki abagibele kolunye uhlangothi lukagiqi-gonqo? **Izinhlobo zezinkinga zokuhlanganisa nokususa** Kunezinhlobo okungenani ezintathu eziyisisekelo sezinkinga zokuhlanganisa nokususa, ngayinye ingathulwa ngezindlela ezahlukene. Izinhlobo eziyisisekelo yilezi: *Ushintsho* UNoluthando ubenama apula amabili. USilo wamnika amanye amathathu. Mangaki ama apula asenawo esephelele?	

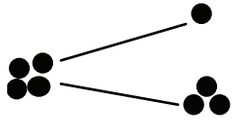
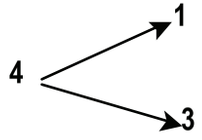
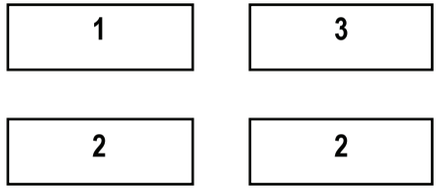
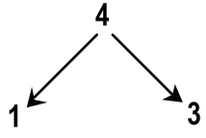
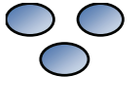
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1.7 **Ukuhlanganisa nokususa**	Xazulula izikinga zezibalo zamagama ezimweni ezijwayelekile bese uchaza izixazululo ngokusebenzisa ukuhlanganisa nokususa okunezixazululo ezifinyelela kuma - 20.	Xazulula ngokwenza izinkinga zezibalo zamagama ezimweni ezijwayelekile bese uchaza izixazululo zezinkinga ezifaka ukuhlanganisa nokususa nezixazululo ezifika kokuyisihlanu.	UNoluthando ubenama apula amahlanu. Ube esenikeza uSilo amane. Mangaki ama apula asenawo esephelele? *Ukuhlanganisa* UNolwazi unamamabula amabili aluhlaza okotshani namabili aluhlaza okwesibhakabhaka. Mangaki amamabula asenawo esephelele? UNolwazi unamamabula amane. Amathathu aluhlaza okotshani amanye aluhlaza okwesibhakabhaka. Mangaki amamabula aluhlaza okotshani anawo esephelele? *Ukuqhathanisa* UNoma unamaswidi amahlanu. UThemba unoswidi owodwa. Manngaki amaswidi uNoma anawo owedlula okaThemba? Izinsiza kufunda**:** Abafundi bengasebenzisa izinto zokubala ezihamba ngazodwana, ukuze zibasize ukubona ukuthi kwenzekani uma bebeka inani elithile ndawonye, noma bezihlukanisa. Izinto zokubala ezihamba ngazodwana zibasiza ukuthi babone ukuthi kwenzekani uma bezibala zonke. • Izibonelo zezinto zokubala ezahlukene kungaba: • Izinto zokubala • Izinti zokubala • Izivalo zamabhodlela • Izinhlamvu zamapetshisi • Amatshe • Amabhulokisi axhumanayo • Ukusebenza ngohla lwezinombolo1 kuya 5, abafundi bangasebenzisa iminwe yabo njengezinto zokubala ezihamba ngazodwana.	

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1.9 **Ukwakha amaqoqo nokuhlukaniselana okuholela ekuhlukaniseni**	Xazulula bese uchaza izixazululo zezinkinga eziphathekayo ezifaka ukuhlukaniselana ngokulingana nokuhlukanisa ngamaqoqo izinombolo eziphelele ezifinyelela kuma - 20 nezimpendulo ezingaba nezinsalela.	Xazulula bese uchaza izixazululo zezinkinga eziphathekayo ezifaka ukuhlukaniselana ngokulingana nokuhlukanisa ngamaqoqo izinombolo eziphelele ezifinyelela e 5 nezimpendulo ezingaba nezinsalela.	EBangeni 1ulwazi lokuhlukanisa lwethulwa ngokunika abafundi izinkinga eziphathekayo ezifaka ukuhlukaniselana nokwenza amaqoqo. KuseBangeni lesi -3 lapho uphawu lokuhlukanisa lwethulwa khona. Ngezansi izibonelo zezinhlobo zezinkinga zamagama ezingenziwa **Ukwakha amaqoqo** *Ukwakha amaqoqo, kulahlwa izinsalela* *U*Siza udayisa amapentshisi asephaketheni elinapentshisi amabili ngalinye. Usalelwe amapentshisi amahlanu. Zingakai izikhwama zamapentshisi amabili isikhwama ngasinye ezingenziwa? *Ukwakha amaqoqo, ufaka izinsalela ezimpendulweni* Kunamapulamusi amane.Zingaki izikhwama ezinamapulamusi amabili ngasinye ezingenziwa? ***Ukuhlukaniselana*** *Ukuhlukaniselana, kulahlwe insalela* Hlukanisa amaswidi amahlanu kubangani abathathu bonke bathole ngokulingana. **Ukubhala ngemifanekiso ukwakha amaqoqo nokuhlukaniselana** Uma kukhonjiswa izinkinga zokuhlukaniselana zezibalo zamagama, abafundi “bazohlukaniselana’” into eyodwa ngesikhathi. Abafundi bebanga 1 bangakwazi ukuhlukaniselana into eyodwa ngesikhathi lokhu kuzokhonjiswa emidwebeni yabo.   Ngokuqhubeka konyaka abafundi bazokwazi ukubhala besebenzisa izithombe nezinombolo ukukhombisa inombolo ehlukaniswayo.	

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UKUBALA ESIMWENI ESIKHULULEKILE Ziningi izindlela zokucabanga ngokulungiselela ukufundisa nokufunda ukubala. Enye indlela ukucabanga ngohla lwezinombolo ozosebenza ngalo. Uhla lwezinombolo osebenzela ngalo luzosho izinhlobo zezinsiza kufunda ezizosetshenziswa nokuthi zizobhalwa kanjani izixazululo. Ngakhoke enye indlela yokucabanga ngokubala emabangeni aphansi indlela okukhonjiswe ngayo ukubala. Loku kwenziwa ngoku: • Ukusebenzisa izinto eziphathekayo; • Ukudweba izithombe; • Ukusebenzisa izithombe nezimpawu; • Ukusebenzisa izinombolo nezinkomba; noma • Izibalo eziyimisho. Abafundi basuka ekusebenziseni izinto eziphathekayo baye ekusebenzeni ngengqondo uma besebenza ngezimpawu zezinombolo nezibalo zemisho. Ukubala kungena ngaphansi kwezimo zokuxazulula izinkinga.Abafundi bathuthukisa amakhono okuxazulula izinkinga ukuze bakwazi ukusebenza ngezinombolo. Abafundi kudinga babale esimweni esikhululekile.				
1.12 **Amasu (izindlela noma amaqhinga)**	Sebenzisa lamasu alandelayo uma kwenziwa izibalo: • Izinto eziphathekayo isib. Izinto zokubala • Ukudweba izithombe • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Imigqa yezinombolo	Sebenzisa lamasu alandelayo uma uxazulula izinkinga nalapho uchaza izixazululo zezinkinga: • Izinto eziphathekayo isib. Izinto zokubala • Izithombe zokudweba izibalo zengxoxo • Imigqa yezinombolo ehambisana nezinto eziphathekayo isib. Ubuhlalu bokubala	Ngethemu yokuqala abafundi bazoxazulula izinkinga besebenzisa izinto eziphathekayo.kubalulekile ukuthi abafundi basebenzise izinsiza kufunda ezahlukene ezikhethwe ngokucophelela ukulekelela ukuthuthukisa ulwazi olufundiswayo. Njengoba abafundi bekhula ekuzethembeni ukusebenzisa izinsiza kufunda, ukukhombisa imicabango yabo bangabhala ukubala kwabo besebenzisa imidwebo.lindela ukuthi imidwebo yabo ikhombise izinsiza kufundisa eziphathekayo. Kungabakhona abanye abafundi abangavele bakhombise ukubala kwabo ngokudweba bengasebenzisi zinto eziphathekayo. **Imigqa yezinombolo elekelelwa izinto eziphathekayo** Uma kusetshenziswa imigqa yezinombolo njengesu lokubala abafundi kufanele ukuba baqale basebenzise: • Ezinye izinsiza kufundisa zomugqa (‘line apparatus’) isib. ubuhlalu bokubala; • Umugqa wezinombolo ukubala uya phambili noma uya emumva; kanye • Umugqa wezinombolo ukuze kunikwe izikhundla bese kuhlelwa izinombolo. Umugqa wezinombolo ohlelekile ungasetshenziswa (kanti ulungele kakhulu) uma abafundi benza ukuhlanganisa nokususa. Umugqa wezinombolo ohleliwe kufanele ukhombise zonke izinombolo ezikuwo.	

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1.12 **Amasu (izindlela noma amaqhinga)**			• Thula ukuhlanganisa usebenzisa umugqa wezinombolo a) Uthisha ubeka umugqa wezinombolo ebhodini oqala ku 0 kuya 10. Ukhombisa abafundi ukuthi ixazululwa kanjani inkinga 3 + 2 esebenzisa umugqa wezinombolo. Ubeka isithombe sikanogwaja ku 0. Isibonelo: unogwaja ugxuma usuka ku 0 kuya 5 bese ebuya egxuma kabili. Ugxume kangaki sekukonke?  b) Abafundi bazosebenzisa iminwe yabo ukugxuma emugqeni wabo wezinombolo osemadeskini abo, njengoba uthisha ebanikeza imisho yezinombolo enezimpendulo ezifinyelela e 10, Isibonelo: 1 + 2 =3.	

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1.13 **Ukuhlanganisa nokususa**	Uhla lwezinombolo: 1 -20 • Hlanganisa ukuya 20 • Ukususa ku 20 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Sebenzisa amabhondi ezinombolo ukuya ku 10	Uhla lwezinombolo: 1 -5 • Hlanganisa kufinyelele ku 5 • Susa ku 5 • Sebenzisa amabhondi ukuya 5	Ngethemu 1 abafundi bazi **ukuhlanganisa njengokuhlanganisa amaqoqo nanjengokubala uqhubeka**. Basebenzisa ulwazi lwabo lokuthi ukuhlanganisa kungenziwa noma ngayiphi indlela ukukhetha ukuthi ubala kanjani. Basebenzisa ubuhlalu obusentanjeni, ukudweba izithombe noma umugqa wezinombolo ukwenza izibalo njenge 3 + 2 noma 1 + 4 ngokubala uqhubeka. Bangahlakaza izinombolo ukuze bahlanganise. Ngethemu 1 abafundi bahumusha ukususa njengoku'khipha'. Basebenzisa ukubonakalisa "ukususa" ngokusebenzisa izinto eziphathekayo noma ukudweba izithombe kanye nezibalo eziyimisho. Bakhumbula ukuthi inombolo yezinto ezisalile iyimpendulo esibalweni. Bangabhala ukuhlanganisa nokususa besebenzisa: • Izinto eziphathekayo; • Izithombe noma nemidwebo; noma • Izithombe nezinombolo. **Ukusebenza ngohla lwezinombolo 1 - 5** Uma abafundi besebenza noma bebala kuloluhla lwezinombolo bangakha ulwazi lokuhlanganisa nelokususa ngalendlela: • Ukusebenzisa izinto eziphathekayo ukumela inombolo nokubala • Ukubhala okubalwayo kusetshenziswa izithombe nemifanekiso • Ukubhala okubalwayo ngokusebenzisa inhlanganisela yezithombe nezinombolo **Ukwakha nokuhlakaza izinombolo** Ukuhlanganisa nokususa eBangeni 1 kugxile ekutheni abafundi abacabange ngezinombolo ngokuthi zakhiwe ezinye izinombolo. Isikhathi esiningi abafundi benza **ingxenye-nengxenye yemisebenzi ephelele.** Iemisebenzi igxile enombolweni ehamba ngayodwa. Isibonelo, uma usebenza ngenombolo 4 abafundi bazo:	

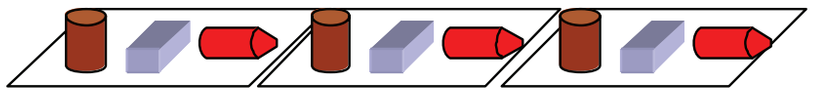
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1.13 **Ukuhlanganisa nokususa**	Uhla lwezinombolo: 1 -20 • Hlanganisa ukuya 20 • Ukususa ku 20 • Sebenzisa izmpawu ezifanele (+, –, =, ☐) • Sebenzisa amabhondi ezinombolo ukuya ku 10	Uhla lwezinombolo: 1 -5 • Hlanganisa kufinyelele ku 5 • Susa ku 5 • Sebenzisa amabhondi ukuya 5	• Hlakaza oku 4 ngezindlela ezahlukene; • bazosho noma bafunde izingxenye kuzwakale; noma • badwebe noma babhale phansi.   Abafundi bangasebenzisa namakhadi ezinombolo ukukhombisa izingxenye zezinombolo. Ukukhombisa oku 4, amanye alamakhadi alandelayo angasetshenziswa:  Lolu lwazi lungalekelelwa ngokubhala ezincwadini zokusebenzela ngesikhathi sokusebenza ngokuzimela.  Uma kwenziwa ukususa abafundi bajwayele ukwenziswa izibalo sengxoxo ukuthuthukisa ukuqonda ukususa njengokuthi ‘khipha’ noma ‘ukubala ukhipha’. Abafundi badinga ukwenza ne**misebenzi yokulahlekile**. Lemisebenzi ilekelela ukuqonda ukususa futhi kufuna enye ingxenye ifihlakale noma ingazeki. Isibonelo: Ngina  ngifisa ukuba bengino- 5	

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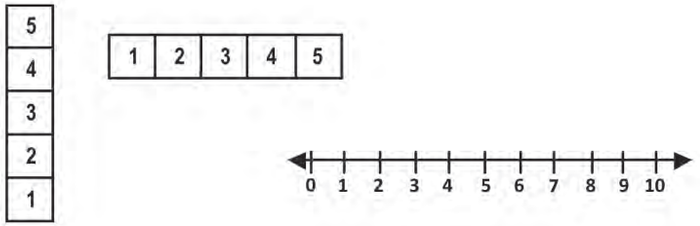
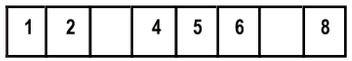
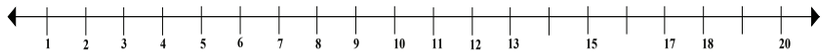
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
1.13 **Ukuhlanganisa nokususa**	Uhla lwezinombolo: 1 -20 • Hlanganisa ukuya 20 • Ukususa ku 20 • Sebenzisa izmpawu ezifanele (+, –, =, ☐) • Sebenzisa amabhondi ezinombolo ukuya ku 10	Uhla lwezinombolo: 1 -5 • Hlanganisa kufinyelele ku 5 • Susa ku 5 • Sebenzisa amabhondi ukuya 5	**Ukuhlanganisa:** Hlanganisa bese wandise, konke ndawonye, akha,isamba **Ukususa:** Susa,khipha, umehluko, okuphakathi koku, okungaphansi, okunciphisiwe ngoku EThemu 2 abafundi bazohumusha ngokusebenzisa ulimi lokuhlanganisa nokususa ngezimpawu. Abafundi bazokwazi ukwenza belandela imiyalelo ehlukene elandelayo: • Akha okungaphezulu ngoku 3 • Yengeza oku 1 ngaphezulu • Susa oku 3 • Nciphisa ngoku 1 • 3 no 2 ngaphezulu • 4 ususe oku 2 • 3 yengeza 1	

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1.16 **Izibalo zekhanda**	**Ulwazi lwezinombolo: uhla kuya ku 20** • Hlela iqoqo elinikiwe lezinombolo ezikhethiwe • Qhathanisa izinombolo kufinyelele e 100 bese besho ukuthi ikuphi okuningi noma okumbalwa • Ukwazi ukuthi iyiphi inombolo enkulu ngoku 1 noma encane ngoku 1 • Ukwazi ukuthi iyiphi inombolo enkulu ngoku 2 noma encane ngoku 2 kunenombolo enikeziwe. • Ukwazi ukuthi iyiphi inombolo enkulu nge 10 noma encane nge 10 kwenikeziwe **Ukukhumbula ngokushesha:** • Amabhondi ezinombolo kufike e-10 • Ukukhumbula ukuhlanganisa nokususa kufike e-10 **Amaqhinga okubala ngekhanda** Sebenzisa amaqhinga okuhlanganisa nokususa ngokufanele:	**Ulwazi lwezinombolo: uhla kuya koku 5** • Hlela iqoqo elinikiwe lezinombolo ezikhethiwe. • Qhathanisa izinombolo kufinyelele e 10 bese besho ukuthi ikuphi okuningi noma okumbalwa • Ukwazi ukuthi iyiphi inombolo enkulu ngoku 1 noma encane ngoku 1 • Ukwazi ukuthi iyiphi inombolo enkulu ngoku 2 noma encane ngoku 2 kunenombolo enikeziwe.	Isikhathi sezibalo zekhanda zithuthukisa abafundi: • Olwazini lwezinombolo; • Olimini lwezibalo; • Kumakhono okucabanga; kanye • nakumakhono okulalela. Ngesikhathi sezibalo zekhanda abafundi kufanele banikezwe amathuba okuchaza izindlela abazisebenzisile. Isikhathi sezibalo zekhanda sakha ukwazi kangcono ngezinombolo (ukuba 'nomuzwa'lwezinombolo) kuqale nokufundisa abafundi ukuthi kusetshenzwa kanjani ngokukhululekile ngezinombolo. Inombolo 5 akuyona nje kuphela inombolo. isibonelo, inombolo 5, abafundi mabazi lokhu: • iza ngemumva kuka 4; • iza phambi kuka 6; • ingahambisana nezinto ezi 5; • bangabhala uphawu; kanye • negama lenombolo. **Ulwazi lwenombolo** Izibonelo zemibuzo nemisebenzi engebuzwa noma engenziwa: • abafundi bama umugqa bese ubuza: ubani owokuqala, owesibili, owesithathu noma owokugcina? • Ikuphi okungaphansi,oku 3 noma 5? • Ikuphi okuningi, oku 2 noma 4? • Nginike inombolo ephakathi koku 1 noku 3, • Nginike inombolo ephakathi koku 2 noku 5. Kunenombolo eyodwa kuphela? • Beka lamakhadi ezinombolo ngokuhlelekile kusuka kwencane kakhulu ukuya kwenkulu kakhulu. Imibuzo yokubala ingabuzwa: • Qala ngoku 3 bese ubala uye phambili ngokukodwa kuya e 10.	

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	• Beka inombolo enkulu kuqala ukuze ubale uqhubeka noma uya emumva • Umugqa wezinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Ukwakha nokuhlakaza inombolo			

ITHEMU YOKU- 1 YEBANGA LOKU-1 2. AMAPHETHINI, IMISEBEZI NE ALJEBHRA				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni ze 1 ihora nemizuzu engu -24)
2.1 **Amaphethini asazibalo-mdwebo**	**Kopisha,wandise bese uchaza** Kopisha,wandise bese uchaza ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo • Amaphethini alula enziwe ngemigqa yemidwebo, izimo noma izinto eziphathekayo **Akha awakho amaphethini** Akha awakho amaphethini asejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa,izimo noma izinto eziphathekayo **Amaphethini asizungezile** Khomba,chaza ngamagama bese ukopisha amaphethini asejiyometri • ngokwemvelo • empilweni yesimanje • emasikweni namagugu	**Kopisha,bese wandisa** Kopisha bese wandisa amaphethini alula usebenzisa: • izinto eziphathekayo • imidwebo (isib. usebenzisa imibala nezimo)	**Ukukopisha i**phethini kusiza abafundi ukuthi babone ukuthi iphethini yakhiwe kanjani. **Ukwandisa i**phethini kusiza abafundi ukuthi baqonde kahle ukuthi iphethini lakhiwe kanjani. Abafundi bangakopisha bese bandisa amaphethini enziwe ngezinto eziphathekayo nangaphambi kokuthi bakhululeke ukusebenzisa amakhilayoni noma ipensela ukuqala ukukopisha nokwandisa amaphethini ngokudweba. Amaphethini angenziwa ngezinto zansuku zonke ezikhona ekilasini, njengezinto zokubala, umentshisi, amabhokisi amentshisi, izimo ezisejiyometri, ubuhlal u,amabhokisi,amabhola,amakhirayoni,amapensela njll. Abafundi bengenza izinto ngobumba noma badlale ngenhlama futhi loku kungasebenza ukwenza amaphethini. EBangeni loku -1 abafundi bangagxila kumaphethini lapho izimo noma izinto eziphathekayo (noma amaqoqo ezimo noma ezinto eziphathekayo) ziphindwe ngendlela efana ngqo. **Isibonelo 1:** Kwamanye amaphethini ubungako bezinto eqoqweni kuyashintshana, kodwa amaqoqo aphinda ngendlela efana ngqo  **Isibonelo 2:** Amaphethini angakhiwa ngokusebenzisa into oyodwa kodwa imibala yayo ishintshane ngendlela ethile.  **Isibonelo 3**: Kwamanye amaphethini izinto ezahlukene ziyasetshenziswa ukwakha iqoqo, kodwa amaqoqo ezinto aphindwa ngendlela efana ngqo 	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
2.1 **Amaphethini asazibalo-mdwebo**	**Kopisha,wandise bese uchaza** Kopisha,wandise bese uchaza ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo • Amaphethini alula enziwe ngemigqa yemidwebo, izimo noma izinto eziphathekayo **Akha awakho amaphethini** Akha awakho amaphethini asejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa,izimo noma izinto eziphathekayo **Amaphethini asizungezile** Khomba,chaza ngamagama bese ukopisha amaphethini asejiyometri • ngokwemvelo • empilweni yesimanje • emasikweni namagugu	**Kopisha,bese wandisa** Kopisha bese wandisa amaphethini alula usebenzisa: • izinto eziphathekayo • imidwebo (isib. usebenzisa imibala nezimo)	Ukusiza abafundi bebanga 1 ukubona ukuthi iliphi iqoqo eliphindwayo, kuyasebenza ukubeka iqoqo ephepheni elehlukile kwelinye noma ukhombise iqoqo ebhokisini ngalinye. **Isibonelo 4:** Amaphethini angenziwa ngokuphinda amaqoqo ezinto. Amaqoqo angenziwa izinto eziningi ezifanayo ezibekwe ngezindlela ezahlukene. Amaphethini ayingxenye ebalulekile emfundo yokuqala, ngakho ke enzeka esifundweni soLimi, Amakhono Empilo neziBalo. Isibonelo, amaphethini ayingxenye yamaculo nomculo, imilolozelo, ukudansa njengenye indlela yesifundo sobuciko obubonakalayo. Kunamathuba kubafundi ukwenza amaphethini abonakalayo namakhono okusebenzisa izibalo uma befunda isifundo samakhono Empilo ikakhulu ekutshutsheni ubuhlalu noma ukudweba amaphethini.	Isifundo - 1

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
2.2 **Amaphethini ezinombolo**	**Kopisha,andisa bese uchaza** Kopisha,wandise bese uchaza ukulandela okulula kwezinombolo kufinyelele okungenani e-100 **Akha awakho amaphethini** Akha awakho amaphethini ezinombolo	**Kopisha,andisa bese uchaza** Kopisha,wandise bese uchaza ukulandela okulula kwezinombolo kufinyelele okungenani e-20 Ukulandelana makukhombise ukubala uya phambili nokuya emumva ku: • ngakunye kusuka kunoma iyiphi inombolo ephakathi koku 1 noku 20	Emabangeni aphansi, amaphethini ezinombolo athuthukisa ulwazi lwezinombolo kubafundi. Amaphethini ezinombolo axhumene nezinombolo, izimpawu nobudlelwano bazo. Ukulandelana kwezinombolo kungaxhumana nokubala. Ukulandelanisa kahle izinombolo kuthuthukisa futhi kuhlanganise amakhono okubala kwabafundi. Njengoba amakhono okubala abafundi eshintsha futhi ethuthuka kanjalo nokulandelana kwezinombolo. Uma abafundi bebala bekhuluma bangakhonjiswa ukulandelana kwezinombolo kubhalwe phansi ngezindlela ezahlukene isib.  Abafundi bangagcwalisa izinombolo ezingekho ezinikeziwe kunoma iyiphi indlela kulezi ezinikwe ngenhla. Khumbula, ukuthi abafundi babhala izinombolo kufinyelela ku 5. Abafundi bangafaka izinombolo ezisele ngokuphimisela bese besebenzisa amakhadi ezinombolo ukuqedela ukulandelana kwazo. Bheka amanothi okuchaza, uqhathanise, uhlele. **Isibonelo 1**: igridi yezinombolo **Isibonelo 2:** ukulandelana kwezinombolo  Ngasekupheleni kwethemu, uhla lwezinombolo ezibekiwe lufinyelelela ku 20. Abafundi bangasebenza ngokulandelana kwezinombolo kusuka ku 1 - 20 noma izingxenye zokulandelana kwezinombolo. **isibonelo 3**: umugqa wezinombolo 	Izifundo ezi 3

ITHEMU YOKU- 1 YEBANGA LOKU-1 3. INDAWO NESIMO (IJIYOMETRI)				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni ze 1 ihora nemizuzu engu -24)
3.1. **Isikhundla, inkomba nokubukeka kwento**	**Ulimi lwesikhundla** Chaza isikhundla sento eyodwa nokuhlobana nenye isib. Ngaphezulu, ngaphambili, ngemuva, kwesokudla, kwesokunxele, phezulu, phansi, eceleni kwe. **Isikhundla nokubukeka kwento** Qondanisa ukubukeka ngokwehlukile kwento eyodwa yansukuzonke. **Izikhundla nezinkomba** • Landela izinkomba unyakaze ekilasini. • Landela imiyalo ukubeka into eyo-dwa ngokuhlobana nenye isb. Beka ipeni phakathi ebhokisini	**Ulimi lwesikhundla** Chaza isikhundla sento eyodwa nokuhlobana nenye isib. Ngaphezulu, ngaphambili, ngemuva, kwesokudla, kwesokunxele, phezulu, phansi, eceleni kwe. **Isikhundla nezinkomba** • Sebenzisa ulimi lwesikhundla olufudwe ngenkathi ulandela izinkomba • Landela izinkomba unyakaze ekilasini. • Landela imiyalo ukubeka into eyo-dwa ngokuhlobana nenye isb. Beka ipeni phakathi ebhokisini	**Ulimi lwesikhundla** Ulimi lwesikhundla kufane luthulwe ngemisebenzi eyenziwayo efaka ukunyakazisa umzimba kwabafundi njengamaculo nemilolozelo enokunyakazisa imizimba kanye namagama anyakazisayo.Lokhu kungenziwa ngesikhathi ufundisa ikilasi lonke.noma uqondanise ngesikhathi sokufundisa amaqembu. Kungakuhle uchithe isikhathi sezifundo ezimbili ngemisebenzi yesikhundla ngethemu 1,kodwa uqhubeke ukwethula nokwenza uphindelela amagama ezikhundla ngezikhathi ezimfishane zekilasi lonke, amagqembu, nomfundi ngamunye.Ulimi lwesikhundla lungabuye lusetshenziswe nangesikhathi sokufundisa ulimi namaKhono empilo. Kuyasiza ukwethula amagama ahambisanayo ezikhundla ngesikhathi esisodwa isib. Phansi naphezulu, phakathi nangaphandle. Amagama ezikhundla angakusiza kungayilawa: • Kwesokudla/kwesokunxele, • Ngaphambili /ngemuva, • ngemuva kwe/ngaphambi kwe • ngaphezulu/ngaphansi; • phakathi/phandle • ngaphansi/ngale kwe • ngaphansi /ngaphezu kwe • eduze/kude • phakathi kwe Ulimi lwesikhundla lungaphethwa ngemisebenzi ebhalwayo njengokudweba, ufaka imibala noma baqondanise imidwebo ngamagama.	Izifundo 2

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
3.1 **Isikhundla, inkomba nokubukeka kwento**			**Isikhundla nezinkomba** Abafundi bangaqala ukufunda amagama ezikhundla bese usebenzisa lolulwazi kanje • Imiyalezo yokunyakaza noma ukubeka izinto ngokuhlobana kwazo isib.beka ikrayoni eduze netafula; beka ikhadi lezinombolo phezu kwesitulo • Izinkomba ezizobenza banyakaze ekilasini.isib. Wozani ngaphambili kwekilasi;yima eduze nesitulo sakho; gxumela ngale komgqomo wezibi njll. Ukufundisa abafundi ukulandela izinkomba kufanela kwenziwe ngemisebenzi yokwenza ezokwenza abafundi banyakaze noma benyakazisa izinto belandela imiyalelo	
3.2 **Izinto ezinhlangothi ntathu**	**Uhla lwezinto** Bona bese usho izinto zonhlangothi ntathu ekilasini nasezithombeni • Ezisabhola • Ezisabhokisi (iprizimu) **Izimpawu zezinto** Chaza uhlele bese uqhathanise izinto ezinhlangothi ntathu ngoku: • Ubungako • umbala • izinto eziginqikayo • izinto ezishibilikayo	**Uhla lwezinto** Bona bese usho izinto zonhlangothi ntathu ekilasini nasezithombeni • Ezisabhola • Ezisabhokisi (iprizimu) **Izimpawu zezinto** Chaza uhlele bese uqhathanise izinto ezinhlangothi ntathu ngoku: • Ubungako • umbala	Imisebenzi eminingi yezinto ezinhlangothi ntathu eBangeni 1 kumele yenziwe ngezinto eziphathekayo.Sifunda umhlaba ngezinto ezinhlangothi ntathu ngokho ke ukuqala ngezinto eziphathekayo kusiza abafundi ukwakha ulwazi abazolusebenzisa esikoleni. Abafundi abaningi bayehluleka ukuhumusha izinto ezinhlangothi ntathu esisejiyometri ezisezithombeni.Ukusebenza ngezinto eziphathekayo kuyabasiza abafundi bakwazi ukuhumusha izithombe zezinto ezisazibalodwebo ngokuhamba kweskhathi.Uma umfundi ebona izinto eziphathekayo angazibuka aziphenduphendule ebuka macala onke, bese ekwazi ukusho ukuthi lesosimo simi kanjani ngasemumva nangaphansi. Uma unesithombe kuphela kufanele uzakhele emqondweni izingxenye ezingabonakali emdwebeni.Akulula ukubona lokhu kubafundi abansebancane. uma abafundi benikwe incazelo yento ngaphandle kokuyibona noma ukuyithinta akulula ukwazi izingxenye zento ngokugcwele.	Izifundo 3

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
3.2 **Izinto ezinhlangothi ntathu**	**Imisebenzi okugxilwa kuyo** Buka bese wakha izinto esinhlangothi ntathu 3-D usebenzisa izinto eziphathekayo njengamabhuloki okwakha;izinto ezingabuye zisetshenziswe;izinto zokwakha	**Imisebenzi okugxilwa kuyo** Buka bese wakha izinto esinhlangothi ntathu usebenzisa izinto eziphathekayo njengamabhuloki okwakha;izinto ezingabuye zisetshenziswe;izinto zokwakha	**Ukwakha izinto ezinhlangothi ntathu 3-D** Abafundi baqala ngokudlala ngezinto ezinhlangothi ntathu ezahlukene bese bakha izinto abazithandayo besebenzisa amabhuloki okwakha noma izinto zokwakha.Kungenziwa ngesikhathi sokusebenza ngokuzimela. Ungasebenzisa izinto ezike zasebenza njengebhokisi likametshisi noma amabhuloki okwakha noma izinto zokwakha ukubumba noma ukwakha okuthile isib. Umbhoshongo, irobhothi, isitimela, imoto, inqaba njll.abafundi bangenza umfanekiso wokwenziwe. Lokhu kungenziwa ngesikhathi somsebenzi wokuzimela, kodwa kusemqoka ukuxoxa nabafundi ukuthi kungani kuyizinhlo ezithile zezinto ezisetshenziselwa ukwakha imifanekiso.Lokhu kusiza abafundi bagxile ezimpawini ezisambhalomdwebo zezinto.isib.uma umbhoshongo ungakhiwa ngamabhokisi noma ngamabhuloki, ungababuza abafundi ukuthi “”Ungawakha umbhoshongo ngamabhola kuphela?”kufanele bachaze izimpendulo zabo. **Ukuwabona nokunika amagama okusamabhola nokusamabhokisi (iprizimu)** Abafundi babona bese bechaza izimo ezisabhola nezisamabhokisi Abafundi kumele bachaze izinto zansukuzonke ngokusho ukuthi zinesimo esisabhola noma esisabhokisi isib. Isitini simise okwebhokisi noma iwolintshi limise okwebhola. Kusemqoka ukuthi abafundi babone futhi basebenze ngezibonelo eziningi ezisabhola nezamabhokisi. Abafundi kumele **banikwe** uhla lwezinto zezimo zezimbulunga ukusebenza ngazo isib.amabhola anobungako obuhlukene, izimabuli, amawolintshi njll. Abafundi kumele **banikwe** uhla lwezinto zezimo zeprizimu ukuze basebenze ngazo isb, izitini, amabhuloki, namabhokisi anobungako obuhlukene Abafundi kumele **bathole** babuye **bahlele** izimo njengamabhola, okusambulunga noma amabhokisi iprizimu uma benikiwe iqoqo lezinto.Abafundi bangathola bakhombise bese benika amagama ezinto ezinesimo esisabhokisi ekilasini. Abafundi bangayalelwa ukuba benze izinto ezinezimo ezisabhola noma ezisabhokisi besebenzisa ubumba.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
3.2 **Izinto ezinhlangothi ntathu**			**Ukuqhathanisa nokuchaza izinto ezinhlangothi ntathu 3-D: ubungako** Abafundi baqhathanisa ubungako bezinto ezifanayo **Isibonelo:** • Hlela amabhola ngobungako bawo • Sebenzisa ulimi olukhuluma ngobungako “ibhokisi likhulu kunebhola ngoba uyakwazi ukufaka ibhola phakathi ebhokisini”. **Chaza izinto ezinhlangothi ntathu 3-D: umbala** Abafundi baxoxa ngemibala yezinto bese behlela izinto ngokwemibala Ukubona bese besho amagama ezinto kanye nemibala yazo kanye nokuqhathanisa ubungako bezinto kungenziwa ngokuphindelela ngesikhathi benza amaphethini **imisebenzi yokubhala** Nakuba imisebenzi yezinto ezinhlangothi ntathu yenziwa ngokwenza,umsebenzi kufanele uphethwe ngemisebenzi ebhalwayo. **Ulimi** Kusemqoka ukuthuthukisa ikhono labafundi ukuthi bakhulume ngezinto ezinhlangothi ntathu • Ulimi lobungako: kukhulu,kukhudlwana,kukhulu kakhulu,kuncane,kuncanyana, kuncane kakhulu • Imibala • Ulimi lwezinto;amabhokisi,amabhola(abafundi akumele bazi amagamausphere,no prizimu) • Ulimi lwesikhundla lokuchaza isakhiwo	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ze 1 ihora nemizuzu engu -24)
3.2 **Izinto ezinhlangothi ntathu**			**isibonelo**: - Ngaphezu kwe; ngaphansi - Ngaphambili,ngemuva - Eceleni kwe,kuhambisana - Ngaphansi,ngale - Eduze,phakathi kwe - Ngaphakathi, ngaphandle Ulimi lobungako nemibala lungathuthukiswa ngesikhathi kufundiswa izifunod zoLimi noma zamakhono eMpilo bese kwenziwa ngokuphindelela ngesikhathi sesifundo sezibalo.ULimi lwesikhundla lungathuthukiswa ngesikhathi sesifundo soLimi noma samaKhono eMpilo nangesikhathi abafundi begxile nqo esikhundleni.kungasetshenziswa noma kwenziwe ngokuphindelela ngesikhathi abafundi besebenza ngezinto ezinhlangothi ntathu.	

ITHEMU YOKU- 1 YEBANGA LOKU- 1 4. ISILINGANISO				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (esifundweni sehora eli 1 nemizuzu engama 24)
4.1 **ISIKHATHI**	**Ukudlula kwesikhathi** Khuluma ngokudlula kwesikhathi • Hlela izigameko ezejwayelekile ezimpilweni zabo • Qhathanisa ubude besikhathi usebenzisa uLimi olufanele isib. Ubude obuthe xaxa, isikhathi esifishanyana, esishesha kakhudlwana, esihamba kancane • Landelanisa izigameko usebenzisa ulimi olufanele njega izolo, namuhla, kusasa.	**Ukudlula kwesikhathi** Khuluma ngokudlula kwesikhathi • Hlela izigameko ezejwayelekile ezimpilweni zabo • Qhathanisa ubude besikhathi usebenzisa uLimi olufanele isib. Ubude obuthe xaxa, isikhathi esifishanyana, esishesha kakhudlwana, esihamba kancane • Landelanisa izigameko usebenzisa ulimi olufanele njega izolo, namuhla, kusasa.	Abafundi abafunde ukukhuluma ngalokhu: • Ukulandelanisa izigameko kanye • Ubude besikhathi Umsebenzi omningi wenziwa nsukuzonke ngesikhathi ufundisa ikilasi noma ngesikhathi samaqembu. Abafundi abakhulume bese bephendula imibuzo uma izinto zenzeka besebenzisa uLimi olufana; ekuseni, ntambama, ebusuku, usheshile, uphuzile. **Ukudlula kwesikhathi** Abafundi balandelanisa izigameko besebenzisa uLimi oluna njengo-izolo, namuhla, kusasa. Abafundi baqhathanisa ubude besikhathi besebenzisa uLimi olufanele njenga; ubude obuthe xaxa, isikhathi esifishanyana, esishesha kakhudlwana, esihamba kancane. Abafundi balandelanisa izigameko ezenzeka ezimpilweni zabo.Babuye balandelanise izithombe njenge • Izindlela zokwenza inkomishi yetiye • Izithombe zengane ikhula ize ibe umuntu omdala • Impilo yokukhula kwezilwane isib. Kusuka eqandeni kuya enkukhwini ephelele noma iqanda kuya kwixoxo eliphelele noma iqanda kuya kwimpukane; kanye • Nezigameko ezijwayelekile zosuku (evuka, eya esikoleni, edlala, edla,elala).	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (esifundweni sehora eli 1 nemizuzu engama 24)
4.1 **ISIKHATHI**	**Khuluma ngesikhathi** • Chaza ukuthi kwenzeke nini usebenzisa uLimi olufanele isib. ekuseni, ntambama, ebusuku,ngaphambi kwesikhathi,ngemumva kwesikhathi • Shono bese ulandelanisa isizinsuku zesonto • Shono bese ulandelanisa izinyanga zonyaka • Faka izinsuku zokuzalwa zabafundi ekhalendeni	**Khuluma ngesikhathi** • Chaza ukuthi kwenzeke nini usebenzisa uLimi olufanele isib. ekuseni, ntambama, ebusuku,ngaphambi kwesikhathi,ngemumva kwesikhathi • Shono bese ulandelanisa isizinsuku zesonto • Shono bese • ulandelanisa izinyanga zonyaka • Faka izinsuku zokuzalwa zabafundi ekhalendeni	**Khuluma ngesikhathi** • Abafundi bafunda ngezinsuku zesonto becula besho nemilolozelo. Lokhu kwenziwa nsukuzonke. • Izinsuku zabo zokuzalwa zifakwa ekhalendeni ngosuku olufanele. • Abafundi bafunda ngezinyanga zonyaka ngomculo nangemilolozelo	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (esifundweni sehora eli 1 nemizuzu engama 24)
4.2 UBUDE	**Isilinganiso esingahlelekile** • Qhathanisa bese uhlela ubude,ukuphakama, noma ububanzi bezinto ezimbili noma ngaphezulu ngokuzibeka eduze nenye • Sebenzisa uLimi olufanele ukukhuluma ngokuqhathanisa isib. kude kune, kufushane kune, kuphakeme kune, kubanzi kune. • Qagela, linganisa, qhathanisa bese ubhala ubude usebenzisa izikalo esingenasilinganiso isib.izandla, amagxathu, ubude bepensela, okokubala njll. • Chaza ubude bezinto ngokubala usho ubude ngesilinganiso ezingahlelekile.	**Isilinganiso esingahlelekile** • Qhathanisa bese uhlela ubude,ukuphakama, noma ububanzi bezinto ezimbili noma ngaphezulu ngokuzibeka eduze nenye • Sebenzisa uLimi olufanele ukukhuluma ngokuqhathanisa isib. kude kune, kufushane kune, kuphakeme kune, kubanzi kune.	Zonke izilinganiso eBangeni I azihleliwe.Azikho izilinganiso ezihleliwe zokukala ubude ezenziwayo Kuyanconywa ukuthi izifundo zezibalo ezifundisa ngobude zifundiswe kabili ngonyaka.(iThemu 1 neThemu 3.NgeThemu 1 kugxilwa ekuqhathaniseni bese kuthi ngoThemu 3 abafundi ngezikali ezingahleliwe.Abafundi bangenza ngokuphindelela bese bephetha loluLwazi ngesikhathi sokusebenza ngokuzimela unyaka wonke. **Ukuqhathanisa okuqondile kobude ngezinto eziphathekayo** Thuthukisa ulwazi lobude nolimi lokukhuluma ngakho. Abafundi baqale bacabange ngakho babuye baxoxe ngobude baphinde baqhathanise izinto ezimbili (imidwebo yezinto ezimbili) ngokwazi ukubona umehluko obonakalayo wobude. **Izibonelo** • Intambo ende nentambo emfishane • Isihlahla eside nesifishane • Umfula ovulekile nowumngcingo **Abafundi bangenza noma badwebe izibonelo njenge** • Sebenzisa ubumba ukwenza inyoka ende nemfishane • Sebenzisa amabhuloki ukwenza umbhoshongo omude nomfishane • Dweba uthisha omude nomfishane Uma abafundi sebengakhuluma ngobude ngamagama aphikisayo, usengathula ulimi lokuqhathanisa isib, Mina ngenze isitimela eside kodwa uSihle wenza isitimela eside ngokuthe xaxa. Qhathanisa ubude ngokubeka izinto eduze kwenye	Izifundo ezi-2

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (esifundweni sehora eli 1 nemizuzu engama 24)
4.2 **UBUDE**			Uma abafundi sebekwazi ukukhuluma ngobude obudlulele (phakama,fishane njll)bese beqhathanisa ubude bezinto lezo ezibonakalayo nezisobala., bangaqhubeka nezinye izibonelo ezilukhunyana nezidinga ukucabanga bese zibekwa eduze kwezinye kuqhathaniswa isib. • Thola ukuthi iyiphi phakathi kwalezizingane ende kunenye uma bema behlangene ngemihlane' • Beka amakrayoni amabili uwaqhathanise ubuka amakhanda amakrayoni ukuthola ukuthi yiliphi elifishane kunelinye. Abafundi kumele bathole ithuba lokuqhathanisa izibonelo ezimbili zezinto eziningi ezahlukene njengezinduku, amapensela, izintambo ezinde, amaphepha asikiwe, njll. Imidwebo yezinto ezimbilii ingaqhathaniswa ume zibekwe zasondelana futhi ziqondanisiwe ngezansi noma ngenhla. Abafundi bangaqhubeka baqhathanise futhi bahlele izinto ezintathu noma ngaphezulu.Lokhu kubizwa ngokuthi ukuhlela izinto ngobude bazo (seriation) izibonelo zifaka • Amaqembu abafundi bemi imihlane yabo ihlangene emugqeni ngababili ukuze kubonakale ukuthi ubani omude nomfishane kunomunye • Ukuhlela amaqoqo ezinto ezintathu noma ngaphezulu kusuka kokude kakhulu/ okuphakeme kuya kokufishane kakhulu/ okubanzi kuya kokumngcingo.Izinto ezifanelekile njengamapensela, amakrayoni,amabhodlela, izinti, izicathulo, izintambo,njll. Abafundi bathuthuka kulwazi lobude ngesikhathi bethuthuka olimini lokuchaza ubude. Njegoba lokhu kungazidingi izinombolo, kungafundiswa ekuqaleni kweThemu 1 ngaphambi kokuba abafundi baphethe ulwazi lwezinombolo nokusebenza kwazo kuze kufinyelele ku 5. Noma ISILINGANISO kuyikhono lokwenza, abafundi kufanele benze imisebenzi yokubhala efaka ukudweba nokufaka imibala, ukuze bazijwayeze ukusebenzisa amakrayoni noma amapensela bese bezijwayeza nokubhala uma bekala.	

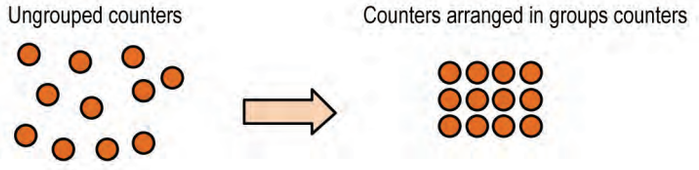
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (esifundweni sehora eli 1 nemizuzu engama 24)
4.3 **Isisindo**	**Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala isisindo usebenzisa isikalo esingalinganisiwe nokuzimelela. isib. amabhuloki, izitini njll. • Sebenzisa ulimi olufaneleyo ukukhuluma ngokuqhathanisa isib. kulula, kuyasinda, kulula kune. • Chaza isisndo sezinto ngokubala bese usho isindo ngamayunithi angahleliwe.	**Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala isisindo usebenzisa isikalo esingalinganisiwe nokuzimelela. isib. amabhuloki, izitini njll. • Sebenzisa ulimi olufaneleyo ukukhuluma ngokuqhathanisa isib. kulula, kuyasinda, kulula kune.	Zonke izilinganiso eBangeni l azihleliwe.Azikho izilinganiso ezihleliwe zokukala isisindo ezenziwayo Kuyanconywa ukuthi izifundo zezibalo zigxile kwisisindo zifundiswe kabili ngonyaka.(iThemu 1 neThemu 4.NgeThemu 1 kugxilwa ekuqhathaniseni bese kuthi ngoThemu 4 abafundi ngezikali ezingahleliwe.Abafundi bangenza ngokuphindelela bese bephetha loluLwazi ngesikhathi sokusebenza ngokuzimela unyaka wonke. **Ukuqhathanisa okuqondile kwesisindo sezinto eziphathekayo** • Ukuthuthukisa ulwazi lwesisindo kanye nolimi olusetshenziswayo. Abafundi baqala ukucabanga babuye bakhulume ngesisindo ngokuqhathanisa izinto ezisindayo nezilula.Bazophakamisa into elula kakhulu babuye baphakamise into esinda kakhulu. Lokhu kungaphethwa ngokukhombisa imidwebo eqhathanisa izinto ezisinda kakhulu nezilula kakhulu. Uma abafundi sebekwazi ukukhuluma ngesisindo ngokusebenzisa amagama aphikisayo isib, kulula noma kuyasinda, abafundi bangaqhathanisa izinto ezimbili,bese basho ukuthi iyiphi ekulula kakhulu noma esinda kakhulu.Lokhu kungenziwa ngokukuphatha izinto ezehlukene esandleni ngasinye bese uqhathanisa ukuthi iyiphi esinda kakhulu noma elula kunenye. Abafundi kumele bakubhale phansi lokho abakutholile ngemisebenzi yokudweba noma yokuqondanisa • Qhathanisa isisindo usebenzisa isikali sokuzimelela Isilinganiso sesindo esithengwayo singasetshenziswa. uma ungenaso ungazenzela esakho ungasebenzisa ikhothenga okubili kwalokhu: inkomishi yeyogathi (yoghurt), isinqe sebhodlela lamalitha ama 2 noma isinqe sebhodlela lobisi eliyilitha (izitsha ezifanayo zifakwa emacaleni omabili ekhothenga) - Abafundi bangaqala babeke izinto ezifanayo emacaleni womabili esikali, ukubona ukuthi ikhothenga lima liqonde uma isisindo sezinto silingana. - Abafundi bangaqhathanisa izinto ezehlukene ngokuzibeka ezitsheni zombili esikalini ukubona ukuthi iyiphi esindayo nelula.	izifundo ezi-2

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (esifundweni sehora eli 1 nemizuzu engama 24)
			- Abafundi bangaqhqthanisa izinto ngokubeka izinto ezingaphezulu kweyo-dwa esitsheni esisodwa noma zombili ukubona ukuthi zingaki izinto zohlobo olulodwa ezinesisindo esifanayo njengesinye.isib.amakrayoni ayi 5 anesisindo esilingana nesesikelo. - Lokhu kungaqhubeka kwenziwe ngezinye izinto ezihamba ngazimbili kuze kulandelanise izinto ngazintathu noma ngaphezulu kusukela kwelula kakhulu kuya kwesinda kakhulu noma kwesinda kakhulu kuya kwelula kakhulu. Izinto ezingasetshenziswa zingakhethwa zifake izinto ezilula nezinto ezincane kodwa ezisindayo njengalokhu 250g iphakethe leswayi uliqhathanisa no 500g iphakethe letiye. Lokhu kuyosiza abafundi ukuqonda ukuthi isisindo siyahambisana nobungako bokukaliwe. Abafundi bathuthukisa ulwazi lwesisindo ngesikhathi bethuthukisa ulimi lokuchaza isisindo. Njegoba lokhu kungazidingi izinombolo. Kungafundiswa ekuqaleni kweThemu 1 ngaphambi kokuba abafundi baphethe ulwazi lwezinombolo nokusebenza kwazo kuze kufinyelele ku 5. **Ukubhala** Noma ISILINGANISO kuyikhono lokwenza, abafundi kufanele benze imisebenzi yokubhala efaka ukudweba nokufaka imibala, ukuze bazijwayeze ukusebenzisa amakrayoni noma amapensela bese bezijwayeza nokubhala uma bekala.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (esifundweni sehora eli 1 nemizuzu engama 24)
4.4 Umuthamo/ okumumethwe	**Isilinganiso esingahlelekile** • Qhathanisa uhlele umthamo wokusaketshezi, bezintsha ezimbili uzibeke eduze Kwesinye. Abafundi bathela okusaketshezi esitsheni sesithathu uma kunesidingo • Qhathanisa uhlele umthamo wokusaketshezi olungamumathwa izitsha ezimbili uma zigcwele. • Sebenzisa uLimi olufanele ukukhuluma ngokuqhathanisa isib. kuningi kune, kuncane kune, kugcwele,akunalutho • Qagela, linganisa, qhathanisa, hlela bese ubhala umthamo wezitsha ngokusebenzisa izikali ezingenasilinganiso isib. Izipuni nezinkomishi.	**Isilinganiso esingahlelekile** • Qhathanisa uhlele umthamo wokusaketshezi, bezintsha ezimbili uzibeke eduze Kwesinye. Abafundi bathela okusaketshezi esitsheni sesithathu uma kunesidingo • Sebenzisa uLimi olufanele ukukhuluma ngokuqhathanisa isib. kuningi kune, kuncane kune, kugcwele.,akunlutho	Yini umthamo? Umthamo ubungako obungamumathwa ilesositsha (ukuvuleka kwaleso sitsha sokuthwala okusaketshezi) ubungako beisikhala esithathwa okusaketshezi.Ibhodlela lingaba nomthamo wezinkomishi ezigcwele ezi-4 kodwa kwesinye isikhathi ingaba noketshezi olungangenkomishi eyodwa. Abafundi beBanga 1 akulindelekile ukwazi umehluko phakathi komthamo nokumumethwe. Zonke izilinganiso eBangeni I azihleliwe.Azikho izilinganiso ezihleliwe zokukala umthamo ezenziwayo Kuyanconywa ukuthi izifundo zezibalo zigxile kumthamo zifundiswe kumathemu amathathu ngonyaka (iThemu 1, 2 no 4.) NgeThemu 1 kungagxilwa ekuthuthukiseni ulimi bese uqhathanisa umthamo, eThemu 2 kungenziwa ukuqhathanisa okuqondile bese eThemu 3 abafundi bangasebenzisa izilinganiso ezingahleliwe. Abafundi bangenza ngokuphindelela bese bephetha loluLwazi ngesikhathi sokusebenza ngokuzimela unyaka wonke. **Ukuqhathanisa okuqondile komthamo wezitsha** Ukuthuthukisa ulwazi lwesisindo kanye nolimi olusetshenziswayo.Abafundi baqala ukucabanga babuye bakhulume ngomthamo ngokuqhathanisa izintsha ezimbili ezifanayo (noma imidwebo yezitsha ezimbili ezifanayo) gxila kulokhu; • Kugcwele /akunalutho • Kuningi kuno/ kuncane kuno • Kuyalingana Abafundi abagcwalise izitsha ezingenalutho besbenzisa amanzi noma isihlabathi njll. Kungafundiswa ekuqaleni kweThemu 1 ngaphambi kokuba abafundi baphethe ulwazi lwezinombolo nokusebenza kwazo kuze kufinyelele ku 5. **Ukubhala** Noma ukulinganisa kuyikhono lokwenza, abafundi kufanele benze imisebenzi yokubhala efaka ukudweba nokufaka imibala, ukuze bazijwayeze ukusebenzisa: • amakrayoni noma amapensela; kanye • nokubhala uma bekala.	1 lisifundo

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (esifundweni sehora eli 1 nemizuzu engama 24)
	• Chaza umthamo wesitsha ngokubala bese usho ukuthi mangaki amayunithi angahleliwe istsha esikwazi ukuwamumatha isib. ibhodlela ligcwaliswa ngezinkomishi ezi-4			

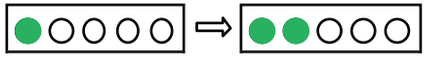
ITHEMU YOKU- 1 YEBANGA LOKU-1 5. UKUQOKEKELWA KOLWAZI				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (esifundweni sehora eli 1 nemizuzu engama 24)
Ukusebenza ngamaqoqo ezinto				
5.1 **Ukuqoqa nohlela izinto**	**Qoqa bese uhlela izinto** Qoqa bese uhlela izinto eziphathekayo zansukuzonke.	**Qoqa bese uhlela izinto** Qoqa bese uhlela izinto eziphathekayo zansukuzonke.	Ukuhlela,okumele okuqoqiwe,nokuchaza okuqoqiwe kwahlelwa kungamakhono alusizo oluzothuthukisa abafundi besaqala ukufika esikoleni (bheka amanothi amakhono okuqalisa izinombolo ekuqaleni kwamanothi achazayo)Lokhu kwenza kuthuthuke amakhono kubafundi ngesikhathi sebeqala ukwenza ukuqokelela ulwazi oluqoqiwe. Abafundi banganikwa izinto ezinhlobonhlobo bacelwe ukuba bazihlele.isib. nika amaqembu izinto zokubala ezifanayo bese ubacela ukuba bazihlele ngokwemibala, ubanike izinhlobo ezehlukene zezinto zokubala njengobuhlal u,umetshiso,izinhlavu zamapentshisi,izivalo zamabhodlela kuhlangene bese ubacela bakuhlele ngamaqoqo ahlukene. Abafundi badweba isithombe samaqoqo abawenzile. Ngalendlela babhala abakwenzile. Baphendula imibuzo ngamaqoqo. **Isibonelo** Uwenze kanjani amaqoqo ezinto zokubala? Ngihlele ngemibala Iqoqo elikhulu lezinto zokubala linombala onjani? Iqoqo elikhulu linombala obomvu Unemibala emingaki ezintweni zakho zokubala? Nginemibala emihlanu eyahlukene. Bangabuye bazitholele ezinye izindlela zokuthola amaqoqo ahlukene isib. Bangaqoqa amacembe egcekeni lesikole noma balethe amathini ahlukene angenalutho emakhaya.	izifundo ezi 2
5.2 **Beka okumele iqoqo lezinto eziqoqiwe zahlelwa**	**Beka okumele iqoqo lezinto eziqoqiwe zahlelwa** Dweba isithombe sezinto eziqoqiwe	**Beka okumele iqoqo lezinto eziqoqiwe zahlelwa** Dweba isithombe sezinto eziqoqiwe Chaza okuqoqiwe nemidwebo.		
5.3 **Xoxa ubike ngezinto eziqoqiwe zahlelwa**	**Xoxa bese ubika ngeqoqo lezinto ezihleliwe** • Nika izizathu zokuthi iqoqo lihlelwe kanjani • Phendula imibuzo ngalokhu; - Kuhlelwe kanjani - Kubukeka kanjani lokhu okuhleliwe • Chaza okuqoqiwe nemidwebo • Chaza ukuthi okuqoqiwe kuhlelwe kanjani	**Xoxa bese ubika ngeqoqo lezinto ezihleliwe** • Nika izizathu zokuthi iqoqo lihlelwe kanjani • Phendula imibuzo ngalokhu; - Kuhlelwe kanjani - Kubukeka kanjani lokhu okuhleliwe • Chaza okuqoqiwe nemidwebo • Chaza ukuthi okuqoqiwe kuhlelwe kanjani		

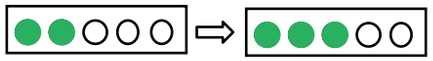
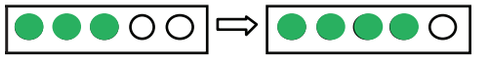
ITHEMU YESI-2 YEBANGA 1 1. IZINOMBOLO UKUSEBENZA KANYE NOBUDLELWANO BEZINOMBOLO				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	
UKUTHUTHUKISWA KOLWAZI LWEZINOMBOLO: Bala ngezinombolo eziphelele				
1.1 **Bala izinto eziphathekayo**	Bala izinto eziphathekayo ngokuyiko kuya kuma-50. • Qagela ngokusondezela inani lezinto ezingabhekwa ngokubala.	Bala izinto eziphathekayo ngokuyiko kuya kuma-20 • Qagela ngokusondelela inani lezinto ezingabhekwa ngokubala. • Ukubala ngokwenza amaqoqo kuyakhuthazwa.	**Kuyini okwehlukile eThemu 2?** EThemu 2, luyakhula uhla lwezinombolo lokubala Kusagxilwa elwazini lokuthi inombolo yokugcina eshiwo ikhomba inani lezinto eqoqweni. Abafundi babala izinto eziningi bese kuthi eThemu 2 kufanele bafunde ukumisa izinto ngendlela ukuze uma behlola ukubala kwabo kubasize babale kalula. **Isibonelo:**  Kulethemu abafundi baqhubeka nokwandisa amakhono abo okubala nokwenza: • Ukubala konke; • Ukubala beqhubeka;. • Indlela yokusebenza yezinombolo ezejwayelekile; kanye • Nokusebenza ngokubhaliwe. Ngethemu yesibili abafundi baqala uku: • Ukubala izinto abangeke bazithinte noma baziphathe. **Isibonelo:** Sibuza abafundi: Zingaki izingxenye ezisefasiteleni? • **Bala ngokulingisa** Isibonelo: Shaya izandla izikhathi eziyi-15. Phakamisa iminwe eyi-8.	

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1.1 **Bala izinto eziphathekayo**			**Ukuqagela** Ukuqagela inombolo yezinto kumaqoqo kuthuthukisa amakhono abalulekile okuqagela. Kusiza abafundi ukubona noma baqagele ngokuyikona. Kubalulekile lokhu uma bebala: bangazibhekela ukuqinisekisa ukuthi baphendule ngokuyikho. Kuyabasebenzela abafundi ukubala imidwebo yezithombe ezingamaqoqo kanye nokungewona amaqoqo. Zama ukuphambanisa amaqoqo ezinto ahleliwe nangahleliwe bese abafundi beqagela ukuthi iliphi iqoqo elinezinto eziningi. Abafundi bangaqagela inani lezinto esithombeni ngasinye. Abafundi sebengabala. Kufanele baqhathanise nombolo abayithole beqagela naleyo abayithole sebebala izinto. Abafundi mabakhulume ngendlela ababale ngayo. Zama ukuthola noma abanye abafundi babale ngamaqoqo. **Ukuqagela inombolo eyakha iqoqo** Abafundi bakhulisa amakhono abo okubona iqoqo elincane lezinto. **Ukubala ngamaqoqo** Ukusiza abafundi ukubala ngezikhawu zoku-2, 5, nokuyi-10 kufanele benze amaqoqo ezinto ezinga-2,-5,nokuyi-10. Amakhadi ezinombolo kufanele akhonjiswe eduze kweqoqo ngalinye ukuze kubonakale inani lezinto ezibaliwe. Ukubala ngamaqoqa kulungiselela abafundi ukuqonda ukuphindaphinda kumazinga aphezulu. **Izinsiza kufundisa** Qaphela ukubheka izinhlobo zezinsiza kufundisa ezisetshenziswayo. • Izinsiza kufundisa ezihleliwe njenge ubuhlalu obusentangeni • iAbhakhasi ukuzilungiselela ukubala ngamaqoqo ngokuyishumi • ukwenza izinyanda zoku-2, izinyanda zoku-5 nokuyishumi kanye nokubala konke.	

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1.2 **Bala uya phambili ubuye uye emumva**	**Bala uya phambili ubuye uye emumva ngoku:** • ngokukodwa kusukela kunoma iyiphi inombolo phakathi kuka 1 - 100 **Bala uya phambili ngama-** • 10 kusukela kunoma iyikuphi inombolo ephindaphinda ngama-10 phakathi koku-1kanye ne- 100 • 5 kusukela kunoma iyikuphi inombolo ephindaphinda ngoku-5 phakathi koku-1kanye ne- 100 • 2 kusukela kunoma iyikuphi inombolo ephindaphinda ngoku-2 phakathi koku-1kanye ne- 100	**Bala uya phambili ubuye uye emumva ngoku:** • ngokukodwa kusukela kunoma iyiphi inombolo phakathi kuka 0 - 50 **Bala uya phambili ngama-** • 10 kusukela kunoma iyikuphi inombolo ephindaphinda ngama-10 phakathi koku-1kanye nama- 50 • 5 kusukela kunoma iyikuphi inombolo ephindaphinda ngoku-5 phakathi koku-1kanye nama- 50 • 2 kusukela kunoma iyikuphi inombolo ephindaphinda ngoku-2 phakathi koku-1kanye nama- 20	**Yimuphi umehluko eThemu 2?** EThemu 2 abafundi manje babala kufinyelela ema-50 ngokukodwa. Bangabala ngezikhawu zokuyi-10, 5, kanye noku-2. **Ukubala ngokweqa bekhuluma** Ukubala ngokweqa elinye igama lokubala ngamaqoqo. Lokhu kusiza ukuthuthukisa ukuqonda amaphethini ezinombolo.Ukubala ngokweqa kukhuthaza abafundi ukubala bacabange ngamaqoqo okubenza babe nekhono lokubala ngokuzethemba. Lokhu kubasiza ukuba bathuthuke kamakhono abo okuqagela. Ukubala ngamaqoqo kwenza bazi ubudlelwano phakathi kwezinombolo ezingalandelani. Kubanika isisekelo sokwenza amaphethini ezinomolo kanye nokuphindaphinda. **Eminye Imisebenzi** Nazi ezinye iziphakamiso zezindlela ezihlukene zokubala ngokweqa.: • Qala ngokubala izinombolo ezilandelanayo kodwa ugcizelela njalo kweyesibili. Isib.Abafundi bashaya izandla besho kakhulu njalo uma bebiza inombolo yesibili. Cela abafundi babale kodwa m basho inombolo yesibili ngekhanda. Lokhu kungandiswa ngokuthi abafundi basho inombolo yesithathu, eyesine, noma eyesihlanu. • Ungahlukanisa ikilasi ngamaqoqo, iqoqo ngalinye lingashintshana namaye ngokusho inombolo elandelayo.Isib. ungahlukanisa ikilasi libe ngamaqoqo amahlanu iqoqo ngalinye kufanele libable njalo inombolo yesihlanu. • Cela abafundi benzae amaphethini ngemizimba yabo njengokuthinta amakhanda abo ngokubala kokuqala,baphambanisa izandla bese bethinta amahlombe ngokubala kwesibili, bese bezishaya amathanga bememeza njalo inombolo yesithathu.. • Ukushaya izandla ngesigqi somculo kungasetshenziswa nokubala ngokweqa. **Ukubala izinto kungathuthukisa amakhono okubala ukhuluma.** Imisebenzi yokubala ekilasini ithuthukisa amakhono ahlukene. Ukubala ngokweqa kwethuleka kangcono uma benza amaqoqo ezinto eziphathekayo.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	
1.2 **Bala uya phambili ubuye uye emumva**			**Eminye Imisebenzi** **Ishadi lezinombolo** Cela abafundi bagqamisa izinombolo abakwazi ukuzibona ngenkathi bebala ngaku- 2, 5, 10. Buza abafundi abakuqaphele ngezinombolo. Shintsha izinombolo abafundi abaqala kuzo uma bebala. **Ukuqhubekela kokubhalwayo** • Umugqa wezinombolo -abafundi bakhombisa ukubala ngokweqa besebenzisa umugqa wezinombolo. • Ukulandelana kwezinombolo- ngasekupheleni kweThemu abafundi bangaqede-la izinombolo ezilandelanayo ezilula (bheka amanothi amaphethini ezinombolo) **Isibonelo:** - 2, 4, 6, 8, – - 5, 10, 15, 20, – - 10, 20, 30, 40, –	
1.3 **Izimpawu namagama ezinombolo**	Bona, khomba,bese ufunda izinombolo • Bona, khomba, bese ufunda izimpawu zezinombolo - 1 kuya e- 100. • Bhala izimpawu zezinombolo - 1kuya ema- 20. • Bona, khomba, bese ufunda amagama ezinombolo - 1 kuya e-10. • Bhala amagama ezinombolo - 1 kuya e- 10.	Bona, khomba,bese ufunda izinombolo • Bona, khomba, bese ufunda izimpawu zezinombolo - 1 kuya e- 100. • Bhala izimpawu zezinombolo - 1kuya ema- 20. • Bona, khomba, bese ufunda amagama ezinombolo - 1 kuya e-10. • Bhala amagama ezinombolo - 1 kuya e- 10.	**Yimuphi umehluko eThemu - 1?** EThemu yesi- 2 luyakhula uhla lwezinombolo: ukwazi, ukufunda, nokubhala izimpawu zezinombolo. Ukubala emugqeni wezinombolo nakwishadi lezinombolo kunika abafundi ithuba lokuzilungiselela ukukhomba, ukubona, ukusho nokufunda izimpawu zezinombolo. Nika abafundi amathuba okuzilungiselela uqhaphele ukubagxilisa kwizimpawu zezinombolo kwindawo abakuyo nokokubhaliwe. **Isibonelo:** • Babheka emakhasini ezincwadi. • Bakhomba izinsuku zokuzalwa kwikhalenda.	

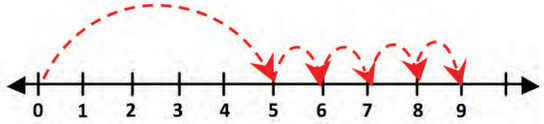
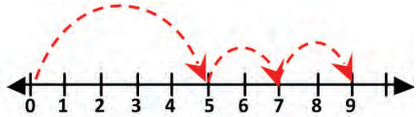
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	
1.3 **Izimpawu namagama ezinombolo**			**Eminye Imisebenzi** • Uthisha unika lemiyalelo elandelayo ukuthola inombolo, bese abafundi basebenzisa amafuladi khadi (flard card) ukukhombisa izimpendulo.. - Thola inombolo engaphambi kokuyi-12 - Thola inombolo engemuva kokuyi- 12 - Inombolo engaphezulu ngokuthathu kokuyi-11 - Inombolo encane ngokukodwa kokuyi-14	
1.4 **Chaza, qhathanisa bese uhlela izinombolo.**	**Chaza, qhathanisa, bese uhlela izinto kufinyelela ema- 20** • Chaza, bese uqhathanisea iqoqo lezinto ngoku - okuningi, okuncane, okuningi kakhulu, okuncane kakhulu, okuningi kunokunye, okuncane kunokunye, okulinganayo, nokuhlukile. • **Chaza bese uhlela** iqoqo lezinto kusukela kokuningi kakhulu kuya kokuncane kakhulu kanye nokuncane kakhulu kuya kokuningi kakhulu**.**	**Chaza, qhathanisa, bese uhlela izinto kufinyelela ema- 10** • Chaza, bese uqhathanisea iqoqo lezinto ngoku - okuningi, okuncane, okuningi kakhulu, okuncane kakhulu, okuningi kunokunye, okuncane kunokunye, okulinganayo, nokuhlukile. • **Chaza bese uhlela** iqoqo lezinto kusukela kokuningi kakhulu kuya kokuncane kakhulu kanye nokuncane kakhulu kuya kokuningi kakhulu**.**	**Yimuphi umehluko eThemu - 1?** EThemu-2 abafundi baqhubeka noku: • Hlela bese uqhathanisa izinto; • Hlela bese uqhathanisa izinombolo; kanye • nokusebenzisa ulimi lokuhlela nokuqhathanisa. Ngalethemu abafundi bayaqhubeka nokuhlela bese beqhathanisa izinto. Abafundi bangaqala ukwenza ubudlelano phakathi kwezinombolo ngokugxila kokukodwa nokubili okungaphezulu, okukodwa nokubili okuncane. • Uma beqhathanisa amaqoqo kufanele bakwazi ukuchaza ngokusho lokhu, “nginezinto zokubala ezingaphezulu ngokubili kunaye” noma, “unokuncane ngokukodwa kunokwami”. • Uma beqhathanisa izinombolo kufanele bakwazi ukuthi “okukodwa ngaphezulu kokune kuhlanu’ noma okuyisikhombisa kungaphezulu ngokubili kokuhlanu” **Ukwakha ulwazi “lokungaphezulu gokukodwa “** Ulwazi lokungaphezulu kuna nokungaphansi kuna kuwukuqa kuhlanganisa nokususa okungahlelwe.Lokhu kusiza abafundi ukwazi ubungako benombolo kanye nokuhlelwa kwezinombolo. • Yalela abafundi ukuthi babeke into yokubala eyodwa esikhaleni sokuqala esingenalutho ekhadini lokubala elinezikhala ezinhlanu “5 frame card”. Yalela abafundi babeke enye into eyodwa yokubala eduze kwento yokuqala yokubala  Buza: Kungaki onakho manje? Kungaki osekungaphezulu ngokukodwa kokukodwa?	

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1.4 **Chaza, qhathanisa bese uhlela izinombolo.**	**Chaza, uqhathanise, bese uhlela izinombolo kufinyelela ema-20** • **Chaza bese uqhathanisa** izinombolo eziphelele ngoku -okungancane kunokunye, okukhulu kunokunye, okuningi kunokunye, okuncane kunokunye, okulinganayo**.** • **Chaza bese uhlele izinombolo**: - Kusukela kokuncane kakhulu kuya kokukhulu kakhulu nokukhulu kakhulu kuya kokuncane kakhulu. - Ngaphambi, emumva, okuphakathi nendawo / phakathi. - Sebenzisa umugqa wezinombolo kusukela koku- 0 - 20 • **Chaza uhlele** usebenzisa ulimi Isib. ngaphambi, emumva, okuphakathi nendawo **/** phakath**i.**	**Chaza, uqhathanise, uhlele izinombolo kufinyelela e-10** • **Chaza bese uqhathanisa** izinombolo eziphelele ngoku -okungancane kunokunye, okukhulu kunokunye, okuningi kunokunye, okuncane kunokunye, okulinganayo**.** • **Chaza bese uhlele izinombolo**: - Kusukela kokuncane kakhulu kuya kokukhulu kakhulu nokukhulu kakhulu kuya kokuncane kakhulu. - Ngaphambi, emumva, okuphakathi nendawo / phakathi. - Sebenzisa umugqa wezinombolo kusukela koku- 0 - 10 • **Chaza uhlele** usebenzisa ulimi Isib. ngaphambi, emumva, okuphakathi nendawo **/** phakath**i.**	• Yalela abafundi ukuthi babeke into yokubala eyodwa ngaphezulu ekhadini lokubala elinezikhala ezinhlanu “5 frame card”.  Buza: Kungaki ongako manje? Kungakanani okungaphezulu ngokukodwa kokubili? • Yalela abafundi babeke into eyodwa ngaphezulu ekhadini lokubala elinezikhala ezinhlanu “5 frame card”.  Buza imibuzo: kungaki onakho manje? Kungakanani okungaphezulu ngokukodwa kokuthathu? Zingaki izinto zokubala ozidingayo ukwenza okuhlanu? Buza, “ Yini ongangitshela kona ngenombolo- 4?(kuncane ngokukodwa kokuhlanu.) Yini ongangitshela yona ngenombolo- 2? (kuncane ngokuthathu kokuhlanu 5.) **Ukuhlela izinombolo** Abafundi kufanele bahlele izinombolo besebenzisa izinhlobo ezahlukene zemifanekiso. • Benza amaqoqo emifanekiso. Abafundi baqhathanisa iqoqo lezinto eziyi-9 neqoqo lezinto ezi-2. • Umugqa wemifanekiso. Uma abafundi behlela izinombolo bangasebenzisa ibanga phakathi kwezinombolo ukwazi ukuthi iyiphi inombolo enkulu ngokuthe xaxa. Isibonelo, bazosho ukuthi okuyi-9 kukhulu ngokuthe xaxa kunoku-2 ngoba okuyi-9 kuza emuva koku-2. Ukuhlelwa kwezinombolo kungenziwa ngesikhathi sokusebenza ngokuzimela / ngayedwa.	

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1.4 **Chaza, qhathanisa bese uhlela izinombolo.**			**Eminye Imisebenzi** *Ukuhlela izinombolo* Abafundi bahlela amakhadi ezinombolo -1 kuya kokuyi-13 kusukela kokuncane kakhulu kuya kokukhulu kakhulu. Abafundi babhekisa phansi amakhadi abo ezinombolo. Bakhetha amakhadi ama-4, bawahlele kusuka kokuncane kakhulu kuya kokukhulu kakhulu bese ucela umngani abheke ukuthi abekwe ngakho yini.Uma sebewaqonda amakhadi ama-4 bangakhetha amakhadi ama-5. Bawahlele ngendlela efanele bese bekopisha izinombolo kusuka kwencane kakhulu kuya kwenkulu kakhulu. **Imisebenzi ebhalwayo** Abafundi kufanele baphethe ulwazi lwabo ngokwenza imisebenzi ebhalwayo. **Izibonelo:** Kufanele kuthi kuphela iThemu babe bekwazi ukuqedela imisho efanayo: Okuningi ngoku-1 koku- 3 _____ Okuningi ngoku-1 koku- 4 _____ Okuncane ngoku-1 koku-2 _____ ____ okuningi ngoku- 1 koku- 4 ____ okuncane ngoku-1 koku- 3	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	
1.6 **Amasu okuxazulula izinkinga**	Sebenzisa lamasu alandelayo ukuxazulula izinkinga bese uchazea izixazululo: • Izinsiza kufundisa eziphathekayo Isib. Izinto zokubala. • Izithombe zokudweba izibalo zengxoxo. • Ukwakha nokuhlakaza izinombolo. • Ukuphinda kabili nokuhlukanisa kabili ngokulingana. • Umugqa wezinombolo	Sebenzisa lamasu alandelayo ukuxazulula izinkinga bese uchazea izixazululo: • Izinsiza kufundisa eziphathekayo Isib. Izinto zokubala. • Izithombe zokudweba izibalo zengxoxo. • Ukwakha nokuhlakaza izinombolo. • Ukuphinda kabili nokuhlukanisa kabili ngokulingana. • Umugqa wezinom-bolo ilekelelwa izinto eziphathekayo. Isib. Ubulalo bokubala	**Yimuphi umehluko eThemu - 2** NgaleThemu kwethulwa kubafundi ukuphinda kabili nokuhlukanisa kabili ngokulingana okokuqala. Bheka amanothi ngaphansi kwengxenye yezibalo. Kufanele kuthi kuphela iThemu abafundi baqale ukuxazulula izinkinga zamagama besebenzisa lamasu: • Imidwebo noma izinto eziphathekayo. • Ukwakha noma ukuhlakaza izinombolo. • Ukwakha nokuhlakaza izinombolo. • Ukuphinda kabili nokuhlukanisa kabili ngokulingana. • Umugqa wezinombolo **Imidwebo noma izinsiza kufundisa eziphathekayo** Abafundi baqhubeka nokudweba izithombe nokusebenzisa izinsiza kufundisa eziphathekayo ukuxazulula izinkinga. Kubalulekile ukuthi izithombe noma imidwebo ibe nezinombolo kanye nomusho wezinombolo. **Ukwakha nokuhlakaza** Kuyisuqhinga elibaluleke kakhulu emazingeni aphansi. Ukusebenzisa lelisu kuvumela abafundi ukuhlukanisa babuye bahlanganise izinombolo ukusiza ukwenza ukubala kubelula. **Isibonelo** 6 + 4 → 5 + 1 + 4 → 5 + 5 → 10 Lelisu lisetshenziswa kaningi emazingeni aphakathi. **Ukuphinda kabili nokuhlukanisa kabili ngokulingana** Lelisu linobucayi obuthile lidinga ulwazi lwezinombolo olujulile.Abafundi abakwazi ukukhetha lelisu bayakwazi ukusebenzisa amaqhinga ngokhululeka. NgaleThemu abafundi baqala ukuphinda kabili izinombolo ngoba babala kufinyelela e-10. Ngaphambi kokusetshenziswa kokuphinda kabili nokuhlukanisa kabili ngokulingana njengeqhinga kufanele abafundi bakufundiswe.	

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1.6 **Amasu okuxazulula izinkinga**			EBangeni 2 abafundi bethulelwa ngomusho wezinombolo bese bebuzwa: “ Singazisebenzisa kanjani izinombolo eziseduze kweziphindeke kabili ukuthola impendulo yoku- 5 + 6 = □?”Abafundi bayaqonda ukuthi oku-5 kanye nokuyi-6 kusondelene nokunye. Izinsiza kufundisa eziphathekayo ziyasetshenziswa ukukhombisa ukuthi “Ngizokwenza oku-5 okuphindwe kabili okungamaqoqo amabili okuhlanu. Ngihlanganisa okubili okuhlanu ngithole okuyishumi bese ngisala nokukodwa okufanele ngikwengeze. Impendulo kube okuyi-11. Besebenzisa ulimi lwabo noma imidwebo, abafundi bangalisebenzisa lelisu. Uma abafundi befika eBangeni-3 bazokwazi ukusebenzisa lelisu uma bebala izinombolo ezinamadijithi amathathu. NgaleThemu abafundi bazosebenzisa ukuphinda kabili nokuhlukanisa kabili ngokulingana ngalendlela: **ukuphinda kabili:** • Amabhayisekili amabli amasondo mathathu, anamasondo amangaki? • USipho noThemba banomabuli aba-4 eyedwa. Bangaki omabuli bebonke? Abafundi bangadweba izithombe basebenzise izinsiza kufundisa eziphathekayo ukukhombisa ukuthi inombolo iphindwe kabili. **Ukuhlukanisa kabili ngokulingana:** • EThemu 2 abafundi benza ngokuphindelela ukuhlukaniseni kabili ngokulingana ukuze basebenzise lelesu eThemu 3. • Ukuphinda kabili nokuhlukanisa kabili ngokulingana kufanele bakwenze ngoku-phindelela kwizimo ezikhululekile. **Umugqa wezinombolo** Ukubala usebenzisa umugqa wezinombolo kusiza abafundi uku: • Babhala ukucabanga kwabo; • Bahlale belandelela imicamango yabo; kanye • Babe nesithombe abangasisebenzisa ukuchaza indlela abaxazulule ngayo inkinga. Abafundi kade besebenzisa umugqa wezinombolo kusukela eThemu 1 Njengoba abafundi beqhubekela phambili emazingeni aphansi kufanele bakhuthazwe ukusebenzisa umugqqa wezimombolo ngendlela ekhombisa inqubekela phambili ekusebenziseni umugqa wezinombolo.	

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1.6 **Amasu okuxazulula izinkinga**			EThemu 1 abafundi babala ngakunye, lokhu kukhonjiswa kumugqa wezinombolo ngokugxuma ngakunye. **Isibonelo 1:** Kunabafana aba-5 kanye namantombazana ama-4 benza izifundo ezengeziwe zobuciko esikoleni. Bangaki abafundi abasekilasini lezifundo zobuciko?  EThemu 2 abafundi basangabala ngakunye, kepha bangakhuthazwa ukusebenzisa umugqa wezinombolo ukukhombisa ukubala uqhubeka ngamaqoqo. **Isibonelo 2:** Abafundi bangahlakaza oku-4 kube ngamaqoqo ama-2. Umugqa wezinombolo uzokhombisa ngokugxuma kabili kusuka koku-5.  	
1.7 **Ukuhlanganisa nokususa**	Xazulula izinkinga zamagama ezimweni ezijwayelekile uchaze isixazululo ezinkingeni ezifaka ukuhlanganisa nokususa nezimpendulo ezifinyelela ema-20.	Xazulula izinkinga zamagama ezimweni ezijwayelekile uchaze isixazululo ezinkingeni ezifaka ukuhlanganisa nokususa nezimpendulo ezifinyelela ema-10.	**Yimuphi umehluko eThemu 1**? KuleThemu abafundi benza bephindelela izinkinga zamagama besebenzela ukuzethemba ekusebenziseni amanye amasu uma bexazulula izinkinga. KuleThemu kufanele kugxilwe ekubhaleni phansi, abafundi kufanele babhale phansi imisho yezinombolo njengezinkinga ezibhalwe phansi kufinyelela koku-5. Abafundi bazoqhubeka nokusebenzisa izinsiza kufundisa eziphathekayo nemidwebo ukwethula izibalo zabo kusukela esi-5 kufinyelela e-10. Bheka amanothi eThemu 1 izinhlobo zezinkiga ezingenziwa ngaleThemu, uhla lwezinombolo luyakhula kufinyelela e-10.	

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1.8 **Ukuhlanganisa ngokuphindel-ela okuholela eku-phindaphindeni**	Xazulula izinkinga zamagama ezimweni ezijwayelekile uchaze isixazululo ezinkingeni ezifaka ukuhlanganisa ngokuphindelela kufinyelela ema-20.	Xazulula izinkinga zamagama ezimweni ezijwayelekile uchaze isixazululo ezinkingeni ezifaka ukuhlanganisa ngokuphindelela kufinyelela e-10.	Uhla lwezinombolo ekubalwa ngazo kuleThemu luvumela abafundi ukuqala ukuhlanganisa okuphindayo. Ukwenza izibalo ezifinyelela e-10 kuvumela ukubhala phansi. **Isibonelo:** • 1 + 1 + 1 • 2 + 2 + 2 + 2 • 3 + 3 + 3 EThemu 1 kwakhiwa umqondo wokuqonda ukuhlanganisa, bese abafundi kufanele bakwazi ukuhlanganisa amaqoqo alinganayo. KuleThemu abafundi basebenza ngezinkinga zamagama ezizovumela imifanekiso yokuhlanganisa ngokuphindayo. Ukuhlanganisa ngokuphindayo kwethulwa kubafundi ngamaqoqo ezinombolo ezilinganayo. Ekuqaleni kngethulwa ngamaqoqo alinganayo ansukuzonke. Izinkinga ezifaka ukuhlanganisa ngokuphindaphinda: • Amaqoqo oku-2: izandla, amasokisi, izicathulo, amehlo,izinyawo, amasondo ebhayisikili. • Amaqoqo oku-3: amasondo ebhayisikili elinamasondo amathathu, unqenqema kunxantathu. • Amaqoqo oku-4: amasondo emoto, imilenze yezihlalo. • Amaqoqo oku-5: iminwe, izinzwane. Ulimi lokuhlanganisa ngokuphindayo lubalulekile. Kufanele abafundi banikwe ithuba lokuchaza ngokukhuluma abakubonayo.	

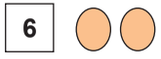
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1.11 **Imali**	• Bona, bese ukhomba imali yaseNingizimu Afrika - uhlweza 5c, 10c, 20c, 50c, R1, R2 - amaphepha R10 kanye R20 • Xazulula izinkinga zezimali kufaka isamba noshintshi oluhlweza kufinyelela ema- 20c noma amarandi kufinyelela kwangama-R20.	• Bona, bese ukhomba imali yaseNingizimu Afrika - uhlweza 5c, 10c, 20c, 50c • Xazulula izinkinga zezimali kufaka isamba noshintshi oluhlweza kufinyelela ema- 20c noma amarandi kufinyelela kwayi-R10.	Fundisa abafundi ngemali, uchaza lolulwazi olulandelayo: • yini imali • ibaluleke ngani imali • isetshenziswa kanjani imali empilweni yansukuzonke • bayibala kanjani abafundi imali Abafundi bafunda ngemali phambi kokuya esikoleni. Abanye abafundi bangaba nalo ulwazi lwenani lemali bese bekwazi ukubona basho uhlweza nemali engamaphepha. KuleThemu kufanele abafundi bafunde ulwazi oluyisisekelo lokusebenzisa imali ngokwenza. Lokhu kungenziwa ngokudlala umdlalo wesitolo. • Leha uhlweza kanye nemali engamaphepha -R20 kanye ne-R10 yaseNingizimu Afrika esikoleni. Abafundi bathinta unqenqema lohlweza bachaze indlela oluhluka ngayo. Bachaza izimpawu ezisohlwezeni ngalunye nemali yamaphepha. • Abafundi babeka uhlweza ngaphansi kwephepha elilula usebenzise okokubhala okuthambile uhlikihle ngaphezu kwalo Isib.amapeni okufaka umbala.basika amakhophi, banamathisele ezincwadini zabo babhale igama lohlweza. • Basika izithombe zohlweza olungo- 5c, 10c kanye no- 20c. Banamathisela yonke inhlanganisela yohlweza oluzokwenza-20c kanye no- 10c Isib. 20c = 10c 5c 5c • 20c = 5c 5c 5c 5c • Isamba kufinyelela e- 20c -uhlweza kuphela. • Abafundi sebeyakwazi ukubala ngoku-5 nokuyi-10 bazobenzisa lolu lwazi ukuthola isamba. • Uthisha unika umfundi ngamunye ikhophi lephepha lohlweza olungo-5c, 10c kanye nama-20c. Ubatshela ukuthi iluphi uhlweza okufanele balukhiphe Isib.uhlweza oluthathu lama-5c.	

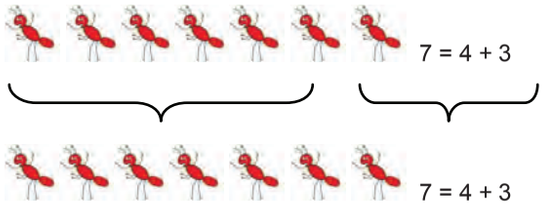
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1.11 **Imali**			Babala ngoku-5 noma benze ukuhlanganisa okuphindayo, 5c+5c+5c. - Uthisha ucela abafundi bakhiphe uhlweza olungama-20c besebenzisa izinhlobo ezihlukene zohlweza. Bazobona ukuthi bakhiphe uhlweza olubili olungo-5c nohlweza olulodwa lo-10c. - Abafundi bagcwalisa iphepha lokusebenzela bekhombisa uhlweza abaludingayo ukwenza isamba sohlweza olungama-20c. **Isibonelo:** 20c = 10c + 10c noma 5c+ 5c + 5c + 5c= 20c noma 5c+5c + 10c =20c • Nika ushintshi usebenzisa uhlweza kuphela - Uthisha wenza izibalo zokususa esebenzisa uhlweza kanye nabafundi Isib. Bakhipha uhlweza olungo-5 olwenza ama-20c. - Uthisha uyabuza: “uma ukhokhela umthengisi imali ama-15c kusele malini?” abafundi abakuthola kunzima ngohlweza kuphela basebenzisa izinto zokubala ukubasiza. - Abafundi bagcwalisa amaphepha okusebenzela lapho bebala ushintshi wezinto abazithengile ngama-20c noma ngaphansi. **Isibonelo:** - 10c - 5c = 5c - 20c - 10c =10c - amashumi aphelele - 20 -5c - 5c - 5c = 5c -ukususa ngokuphindelela	

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UKUBALA EZIMWENI EZIKHULULEKILE				
1.12 **Amasu (izindlela noma amaqhinga)**	Sebenzisa lamaqhinga alandelayo uma wenza izibalo: • Izinsiza kufundisa eziphathekayo Isib. izinto zokubala • Dweba izithombe • Ukwakha nokuhlakaza izinombolo. • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Umugqa wezinombolo	Sebenzisa lamaqhinga alandelayo uma wenza izibalo: • Izinsiza kufundisa eziphathekayo Isib. izinto zokubala • Ukwakha nokuhlakaza izinombolo. • Ukuphinda kabili nokuhlukanisa kabili ngokulingana • Umugqa wezinombolo wesekwa izinsiza ku-fundisa eziphathekayo Isib.ubuhlalu bokubala	**Yimuphi umehluko kuThemu 2**? EThemu 2, abafundi baqala ukubala kufinyelela e-10.Ukusebenza phakathi kwaloluhla lwezinombolo kusho ukuthi amasu okwenza izibalo angathuthukiswa enziwe ngokuphindelela. Lamaqhinga angeziwa ngokuphindelela kwingxenye yezinkinga zezinombolo. **Ukwakha nokuhlakaza izinombolo** Imisebenzi yokwakha nokuhlakaza kuthuthukisela phambili ulwazi lwabafundi lobungako bezinombolo ezisondelene. Lemisebenzi yenza isisekelo sokufundwa kwezibalo. Ukuhlakaza nokwakha izinombolo kusiza ukwenza izibalo zibelula. Ukwenza ngokuphindelela kuloluhlobo lwemisebenzi kugqugquzela abafundi ukukusebenzisa njengeqhinga kufunda izibalo. **Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo** Ngaphambi kokusetshenziswa kokuphinda kabili nokuhlukanisa kabili ngokulingana njengeqhinga lokwenza izibalo kufanele kuqondwe futhi kwenziwe ngokuphindelela kuqala. • Sebenzisa izinsiza kufundisa eziphathekayo. Lokhu kungenziwa ngokunika imiyalelo eqondile.Yisho bese ukhombisa abafundi ukuthi kunenduku zokubala ezinhlanu nokuthi uzokwazi ukuziphinda kabili ngokubeka izinduku zokubala ezinhlanu ngaphezulu. • **Qhubekela kokubhalwayo usebenzisa izithombe**. • Abafundi banganikezwa imifanekiso yokuphinda kabili bangabuye bayikhombise ngezithombe. • Ukusebenzisa izinombolo Abafundi bangaqala ngokuqedela imisho njengo: • Phinda kabili oku- 1 kwenze... • Phinda kabili oku- 2 kwenze... • Phinda kabili oku- 3 kwenze... • Phinda kabili oku- 4 kwenze...	

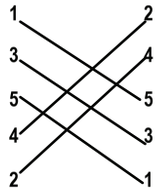
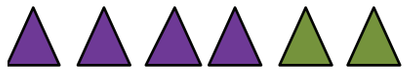
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1.12 **Amasu (izindlela noma amaqhinga)**			**Umugqa wezinombolo wesekwa izinsiza kufundisa eziphathekayo** Uma usebenzisa umugqa wezinombolo njengesu ukwenza izibalo, abafundi kufanele babebeqale ngokusesebenzisa: • Ezinye ezinsiza kufundisa ezisemgqeni Isib. ubuhlalu bokubala • Umugqa wezinombolo ubale uya phambili ibuye uye emumva; kanye • Nomugqa wezinombolo ukuze abeke abuye ahlele izinombolo ngokwendawo. Umugqa wezinombolo ohlelekile kufanele usetshenziswe uma abafundi behlanganisa noma besusa. Umugqa wezinombolo ohlelekile kufanele ukhombise zonke izinombolo okusetshenzwa ngazo.	
1.13 **Ukuhlanganisa nokususa**	Uhla lwezinombolo: 1 -20 • Hlanganisa kufinyelela ema-20 • Susa kusuka ema- 20 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Yenza uphindelela amabhondi ezinombolo kufinyelela e-10	Uhla lwezinombolo: 1 -10 • Hlanganisa kufinyelela e-10 • Susa kusuka e- 10 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Yenza uphindelela amabhondi ezinombolo kufinyelela e-7	**Yimuphi umehluko eThemu 1**? EThemu 2 uhla lwezinombolo luyakhula kusuka koku-5 kufinyelela e-10. NgaleThemu abafundi bazoqala ukwazi: • Ukuguquguqulwa kwezinombolo uhlanganisa (The commutative property of addition); kanye • Nobudlelwano phakathi kokuhlanganisa nokususa Ngaphambi kokwethula abafundi kwizimpawu zokuhlanganisa nokususa kufanele abafundi babe nolwazi olwanele: • Ukubala konke; • Ukubala uqhubeka kusukela kwinombolo enkulu kakhulu; • Ukusebenzisa nokuqonda ulimi lokuhlanganisa nokususa; • Nokuhlela nokuqhathanisa izinombolo. KuleThemu, abafundi baqhubeka nokukhulisa ukuqonda ukuhlanganisa nokususa. Ukuhlanganisa nokususa kusahlobene ngokuqinile nokubala. Ulwazi lokukodwa ngaphezulu nokubili ngaphansi lusasetshenziswa ngoba luhambisana nenombolo elandelayo uma kubalwa ngokulandelana.	

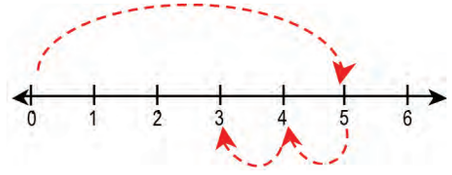
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	
1.13 **Ukuhlanganisa nokususa**			NgaleThemu abafundi basosebenzisa izimpawu ukubhala imisho yezinombolo njalo nangokuzethemba. Inqubekelaphambili ekusebenziseni izimpawu kufanele kusetshenziswe ngokukhulu ukucophelela. Kubalulekile ukuthi abafundi baqonde izincazelo ezahlukene ezihambisana nezimpawu. Abafundi kufanele bakwazi ukuqonda basebenzise amagama njengo: engeza, hlanganisa, sekukonke, konke, susa, okuhlukile phakathi, nokususa ngaphambi kophawu ayethulwa kubafundi. Abafundi kufanele baqale bakwazi ukuphendula imibuzo efana njengo: oku-3 noku-2; oku-5 uthathe oku-3; ngaphambi kokusebenzisa uphawu. **Ukubhala phansi imifanekiso** Ukwenza izibalo kufinyelela e-10 kusho ukuthi abafundi basazibhala phansi izibalo zabo besebenzisa: • Imidwebo noma izinsiza kufundisa eziphathekayo; • Izithombe kanye nezinombolo; noma • Izinombolo kuphela. Ngasekupheleni kweThemu ngaphakathi kohla lwezinombolo oku-1 kufinyelela koku-5 abafundi kufanele babenokuzethemba ekusebenziseni izinombolo kuphela bengadwebi izithombe ukumela izibalo zabo. **Amaqhinga okwenza izibalo uma uhlanganisa noma ususa** *Ukuhlanganisa ngokubala konke.* Abafundi bazoqala koku-1 babale kufinyelela koku-5 baqhubeke bebala kufinyelela kokuyi-7.  *ukuhlanganisa ubala uqhubeka.* Abafundi bazobala kusukela koku-5 kufinyelela kokuyi-7 **5**  Lelisu lisebenza kangcono kakhulu kunokubala uqhubeka ngokukodwa. Abafundi bazosebenzisa lelisu kakhulu uma uhla lwezinombolo zokubala lukhula.	

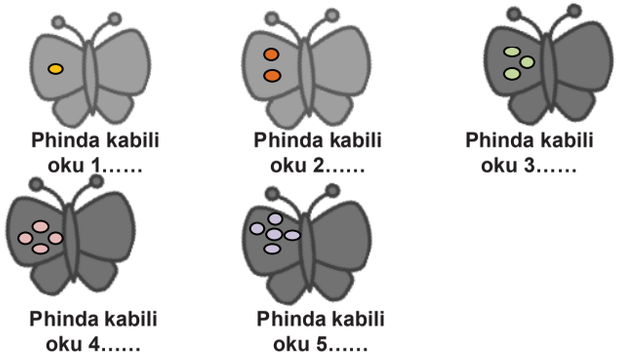
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1.13 **Ukuhlanganisa nokususa**			*Bala uqhubeka kusukela kwinombolo enkulu kakhulu.* **6**  Abafundi babala beqhubeka kusukela kwinombolo enkulu kakhulu oku-6 babale beqhubeka kufinyelela esi-8 *Benza ukususa ngokukhipha okunye* 7 - 3 = ☐  7- 3 = 4 Uma bebhala phansi izibalo zokususa abafundi bangadweba umugqa phezu komfanekiso ukukhombisa ukususa. *Susa ngokubala uqhubeka*  6 – 2 = ☐ Abafundi bangabala beqhubeka kusukela koku-2 kufinyelela kokuyi-6. Kufanele baqaphele ukuthi zingaki izinombolo abazibalile kusuka koku-2 kufinyelela kokuyi-6. *Susa ngokubala uya emuva* 8 – 2 = ☐  Abafundi bangaqala kwizinombolo ezinkulu kakhulu okungoku-8, babale beya emuva ngezinyathelo ezi-2 kufinyelela kokuyi-6.	

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1.13 **Ukuhlanganisa nokususa**			**Ukwakha nokuhlakaza izinombolo** Lokhu kungenziwa ngezindlela ezinhlobonhlobo.  **Amabhondi ezinombolo** NgaleThemu abafundi benza ngokuphinda amabhondi ezinombolo kufinyelela kokuyi-7. Lokhu kungethulwa ngezithombe nemisho yezinombolo kusetshenziswa izinhlobonhlobo zemifanekiso.	

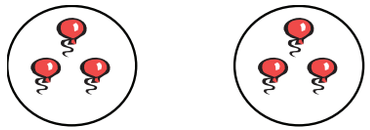
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1.13 **Ukuhlanganisa nokususa**			Ukuhlanganisa **Isibonelo:** *ukwenza okuyi-6 noma uthole abangane abayi-6 usebenzisa izithombe nezinombolo* Isibonelo **1**  noku ☐ kwenza ☐ **6** Isibonelo **2**  noku ☐ kwenza ☐ **6** Isibonelo **3**  noku ☐ kwenza ☐ **6** *Ukwenza okuyi- 6 usebenzisa izithombe nezinombolo* Faka umbala ukukhombisa okuyisi-6 ngezindlela ezihlukene. ☐☐☐☐☐☐ _____ noku _____ kwenza 6	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	
1.13 **Ukuhlanganisa nokususa**			*Sebenzisa izinombolo kuphela* Qondanisa izinomblo ezihamba ngambili ukwenza okuyi- 6:  **Ukushintsha izikhundla zezinombolo** Ngalethemu abafundi bazoqala ukubona ukusebenza ngezinombolo ngendlela yokushintsha izikhundla behlanganisa ngaphandle kokuthi bazi igama ukubizwa ngalo lelohlelo. **Isibonelo:** Bala onxantathu  **6 + 2 = □**  **2 + 6 = □** Ukubhala okuhlobene nokuhlanganisa nokususa imisho yezinombolo - *ukuqonda ubudlelwane phakathi kokuhlanganisa nokususa.* KuleThemu abafundi bafunda ukuthi bangabhala umugqa wezinombolo wokususa nokuhlanganisa. **Isibonelo:**  4 + 2 = 6 noku 6 – 2 = 4 2 + 4 = 6 noku 6 – 4 = 2	

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1.13 **Ukuhlanganisa nokususa**			**Uphawu lokulinganisa** Uphawu lokulinganisa akufanele lwethulwe / lufundiswe masishane. Kungaba usizo ukusebenzisa izimpawu ngendlela ekhululekile bese unika abafundi ithuba lokusebenzisa imicibisholo endaweni yophawu lokulinganisa. **Isibonelo:** kukonke kwenza **4 noku 2 →** 6 **Ukusebenzisa umugqa wezinombolo** Yethula / fundisa ukususa kufinyelela e-10 emugqa wezinombolo. Uthisha usebenzisa umugqa wezinombolo ukususa izinombolo kufinyelela e-10 Isib. 5 – 2 = **Isibonelo:** unogwaja ugxuma kuya ku-5, waphinde wagxuma izinombolo ezimbili ukuya emumva wabe esema koku-3. Ngakhoke oku 5 – 2 = 3  **Umsebenzi obhaliwe** Abafundi kufanele banikwe izinhlobonhlobo zemifanekiso ukubasiza ukuqonda ukuhlanganisa nokususa. Badinga ukwenza umsebenzi obhaliwe obuza ngokucacile: • Ukubala beqhubeka; • Ukuhlanganisa ngokubala beqhubeka kusukela kwinombolo enkulu; noma • Ukususa ngokudweba umugqa phezu komfanekiso ukukhombisa ukususa	

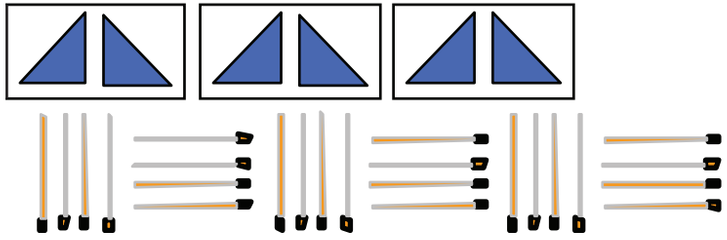
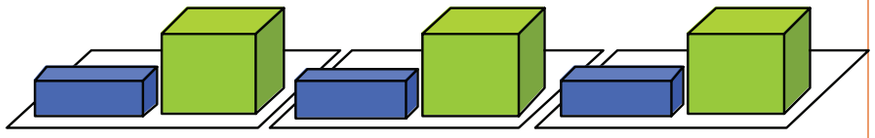
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1.13 **Ukuhlanganisa nokususa**			**Ulwazi lokuphinda kabili** Uhla lwezinombolo abafundi abasebenza ngalo lubavumela ukuthi baqale ukuphinda kabili. Lokhu kungethulwa ngezindlela eziningi futhi kungenziwa uma abafundi bebala izinto. **Isibonelo:a**bafundi bangenza amaqoqo ezinto zokubala ezi-2, ezi-4, eziyisi-6, 8,10. Imisho yezinombolo kufanele ihambisane nemifanekiso.  **Phinda kabili oku 1……** **Phinda kabili oku 2……** **Phinda kabili oku 3……** **Phinda kabili oku 4……** **Phinda kabili oku 5……**	

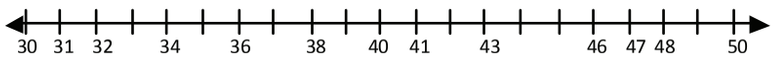
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1.14 **Ukuhlanganisa okuphindayo okuholela ekuphindaphindeni**	• Ukuhlanganisa okuphindayo (i.e.izinombolo ezifanayo) kufinyelela ema- 20 • Sebenzisa izimpawu ezifanele (+, –, =, □)	• Ukuhlanganisa okuphindayo (i.e.izinombolo ezifanayo) kufinyelela e-10 • Sebenzisa izimpawu ezifanele (+, –, =, □)	**Yimuphi umehluko eThemu 1**? EThemu 2 abafundi baqala ukwenza ukuhlanganisa okuphindayo kufinyelela e-10. Uma abafundi sebenolwazi oluqinile lwezinombolo 1 kufinyelela esi-5, ukuhlanganisa uphindayo kuzokwenza umqondo kubafundi. Ukuhlanganisa okuphindayo kufanele kwethulwe kubafundi ngamaqoqo ezinombolo ezilinganayo. Ukusebenza ngezinto ezingamaqoqo kubalulekile ukwazi ukuphindaphinda. Abafundi kufanele bakwazi uku: • Ukwenza amaqoqo ezinto ezilinganayo; • Chaza ukuhleleka; bese • ubala inani eliphelele lezinto. Okokuqala abafundi bazobala ngakunye uma sebebala ngokukhulleka beqa izinomboli kufanele babale izinto ezihlelwe ngakubili, ngakuhlanu, noma ngamashumi. Abafundi kufanele bavezelwe izinhlobo eziningi zemifanekiso ehlukile ukubasiza baqonde ukuhlanganisa bephindayo. Kungaba usizo ukwethula izithombe kubafundi zansukuzonke zezinto eziqoqelwe ndawonye ezilinganayo.Isib. • Amaqoqo oku-2: izandla, amasokisi, izicathulo, amehlo,izinyawo, amasondo ebhayisikili. • Amaqoqo oku-3: amasondo ebhayisikili elinamasondo amathathu, unqen-qema kunxantathu. **isibonelo:** Mangaki amasondo esewonke? 	

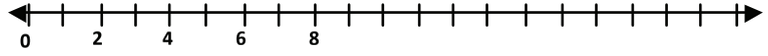
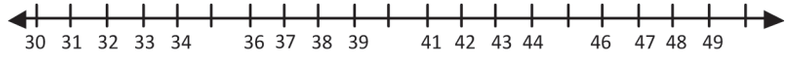
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1.14 **Ukuhlanganisa okuphindayo okuholela ekuphindaphindeni**			Mingaki iminwe? Qedela lomusho wezinombolo ongenzansi. ☐ + ☐ + ☐ = 15  **Ukubhala phansi iukubhala phansi imifanekiso yokuhlanganisa okuphindayo** kugxilwa ekuthuthukiseni ulimi ukulekelela ulwazi lokuphindaphinda. Abafundi bazobhala phansi ulwazi lwabo besebenzisa izithombe. Abafundi kufanele banikwe izithombe zezinto eziqoqiwe badwebe izindilinga bazizungeze ukukhombisa amaqoqo ezinto.  Ulimi olungasetshenziswa lungathi amaqoqo ama 2 oku 3. Uma abafundi sebenokuzethemba lapho bechaza kumelwe ngezithombe besebenzisa ulimi sebengakwazi kuchaza lokhu ngomusho wezinombolo. Umusho wezinombolo: 3 + 3 = 6	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KWI THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	
1.16 **Izibalo zekhanda**	**Ulwazi lwezinombolo: Uhla- 20** • Hlela uhla lweziombolo ezikhethiwe ozinikezwe. • Qhathanisa izinombolo kufinyelela e-20 usho ukuthi iyiphi engaphezulu noma ngaphansi ngoku - 1, 2 ne-10. **Ukukhumbula ngokushesha:** • Amabhondi ezinombolo kufinyelela e- 10 • Khumbula amaphuzu okuhlanganisa nokususa kufinyelela e- 10 **Amqhinga okubala ngekhanda** Sebenzisa amaqhinga okwenza izibalo zokuhlanganisa nokususa ngendlela eyiyo: • Beka inombolo enkulu kuqala ukuze babale beqhubeka noma beya emumva. • Umugqa wezinombolo • Ukuphinda kabili nokuhlukanisa kabili kulingane • Ukwakha nokuhlakaza izinombolo	**Ulwazi lwezinombolo: Uhla- 10** • Hlela uhla lweziombolo ezikhethiwe ozinikezwe. • Qhathanisa izinombolo kufinyelela e-10 usho ukuthi iyiphi engaphezulu noma ngaphansi ngo - 1, no ku 2.	**Yimuphi umehluko kuThemu 1**? **Kuthemu 2** uhla lwezinombolo luyakhula kusukela koku-5 kuya e-10. Izibonelo zemibuzo kanye nemisebenzi engabuzwa nengenziwa: • Qala koku-3 ubale uya phambili ngokukodwa kufinyelela e-10. • Yikuphi okuncane oku- 8 noma oku-5? • Yikuphi okuningi oku- 8 noma oku- 4? • Yikuphi okuncane oku- 2 noma oku 9? • Yikuphi okungaphezulu ngoku- 2 koku 3? • Nginike inombolo ephakathi koku-1 noku- 3. • Nginike inombolo ephakathi kokuyi -6 nokuyi -10. • Nginike inombolo ephakathi koku 6 ne 10. Ngabe iyodwa yini inombolo? • Beka lamakhadi ezinombolo ngokulandelana kusukela enombolweni encane kakhulu kuya kwenkulu kakhulu.	

ITHEMU YESI- 2 YEBANGA LOKU 1 2. AMAPHETHINI, UBUDLELWANE, KANYE NE-ALJIBHRA				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
2.1 **Amaphethini okusejiyometri**	**Kopisha, uqhubeke bese uchaza** Kopisha, uqhubeke bese uchaza ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo. • Amaphethini alula enziwe ngemidwebo yemigqa, izimo noma izinto **Akha amaphethini akho** Akha amaphethini okusejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto **Amaphethini asizungezile** Khomba, chaza ngamagama bese nikopisha amaphethini okusejiyometri • kwimvelo • kusuka kwimpilo yesimanje, • kusuka emasikweni ayigugu	**Kopisha, uqhubeke bese uchaza** Kopisha, uqhubeke bese uchaza ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo. • Amaphethini alula enziwe ngemidwebo yemigqa, izimo noma izinto **Akha amaphethini akho** Akha amaphethini okusejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto	**Ukukopisha** amaphethini kusiza abafundi ukubona indlela yokuthi iphethini yenziwe kanjani. **Ukuqhubeka** nephethini kusiza abafundi ukubheka ukuthi bayiqonda kahle indlela iphethini eyenziwe ngayo. **Ukuchaza** iphethini kusiza abafundi ukuthuthukisa amakhono abo olimi kanye nokukhuluma. Kuyakusiza ukubona indlela abafundi abahumushe ngayo iphethini. EBangeni 1 abafundi bangagxila kumaphethini lapho izinto noma amaqoqo ezinto eziphindwe ngendlela efanayo. NgeThemu ye-2 abafundi abaningi sebesebenzisa ngokukhululeka amakrayoni noma ipeni lomsizi ukudweba. Abafundi bangaqhubekela phambili ukukopisha nokuqhubeka namaphethini enziwe ngezithombe esikhundleni sezinto eziphathekayo. Kufanele bagxile ekuchazeni amaphethini. Akulula kubafundi ukuchaza iphethini. Ungabasiza bafunde okulindeleke bakhulume ngako ngokubuza imibuzo efana no: “Yiziphi izimo ozibonayo kulephethini?” “Ziwumbala ofanayo zonke yini?” “Ubona isimo esisodwa noma ngaphezulu kwiphethini?” “Ingabe zonke izinto zibheke endaweni efanayo?” “Ngabe kunenombolo efanayo yezinto kwiqoqo ngalinye?” “Zingaki izinto kwiqoqo ngalinye?” “Ingabe zonke izimo zinkulu ngokulinganayo?” njll. EThemu ye-2 okunye okungagxilwa ekusebenziseni izimo zokunhlangothi mbili nezinto zokunhlangothi ntathu abafundi abafunde ngakho eThemu yo-1. Abafundi bangenza izimo ezinhlangothimbili ngokusika iphepha noma ikhadi, noma bangakudweba. Bangenza amaphethini ngamabhokisi noma amabhola abawenze ngobumba noma inhlama. Amaphethini angenziwa ngokusebenzisa isimo esisodwa kepha umbala wento ushintshe njalo.Isib. 	Isifundo esi-1

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
2.1 **Amaphethini okusejiyometri**			Kuyasiza eBangeni 1 ukusiza abafundi babone ukuthi iliphi iqoqo eliphindayo, ngokubeka iqoqo ngalinye ephepheni lalo, noma ukukhombise ebhulokini lalo ekhasini. Amaphethini angenziwa ngamaqoqo afana nse aphindayo, lapho iqoqo ngalinye linohlobo olulodwa lwezinto kepha isikhundla sezinto siyashintsha, amaqoqo afana nse ayaphinda.Isib.  Kwamanye amaphethini kusetshenziswa izinto ezihlukene ukwenza iqoqo, kepha amaqoqo ezinto aphindwe ngendlela efanayo.Isib.  Kwamanye amaphethini ubungako bezinto eqoqweni buyashintsha, kepha amaqoqo aphindwe ngendlela efanayo.  Abafundi bangenza amaphethini ngokutshu0tsha ubuhlalu, amaphethini angabuye enziwe kwisifundo samakhono empilo.	

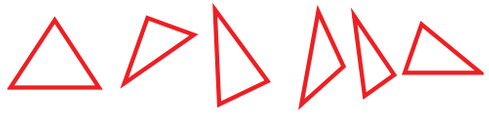
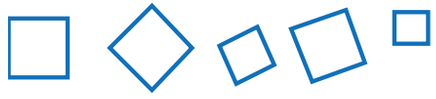
IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
2.2 **Amaphethini ezinombolo**	**Kopisha, uqhubeke bese uchaza** Kopisha, uqhubeke bese uchaza izinombolo ezilula ngokulandelanisa okungenani ufike ku- 100 **Akha amaphethini akho** Akha amaphethini akho ezinombolo.	Ukulandelana kwezinombolo kufanele kukhombise ukubala uya phambili nokubala uya emumva kanye: • Ngaku 1 usuka kunoma iyiphi inombolo phakathi kuka 1 no 50 Uya phambili: • Ngama 10 kusuka kunoma iyiphi inombolo ephakathi,kuka 0 kuya ku 50 • Ngaku 5 kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya ku 50 • Ngaku 2 kusukela kunoma iyiphi inombolo ephakathi kuka o kuya ku 20 **Akha amaphethini akho** Akha amaphethini akho ezinombolo	Ukulandelana kwezinombolo kungahlanganiswa nokubala. Uma amakhono abafundi okubala esintsha futhi ethuthuka, izinhlobo zezinombolo ezilandelanayo abafundi abasebenza ngazo zingathuthuka. Ukulandelana kwezinombolo kufanele kukhombise ukubala uya phambili nokubala uya emumva kanye: • Ngakunye usuka kunoma iyiphi inombolo phakathi kuka 1 no 50 • Ngamashumi kusuka kunoma iyiphi inombolo ephakathi,kuka 0 kuya ku 50 • Ngakuhlanu kusukela kunoma iyiphi inombolo ephakathi kuka 0 kuya ku 50 • Ngakubili kusukela kunoma iyiphi inombolo ephakathi kuka o kuya ku 20 Uma abafundi bebala bephimisa bangakhonjiswa ukulandelana kwezinombolo okubhalwe phansi ngezindlela ezihlukile. Bangakhomba inombolo ebalwayo.Isib. 1 **2** 3 **4** 5 **6** 7 **8** 9 **10** 11 **12** 13 **14** 15 **16** 17 **18** 19 **20** Abafundi sebengagcwalisa izinombolo ezishiyiwe ku noma iyiphi indlela yokulandelana engenhla. Khumbula abafundi babhala izimpawu zezinombolo kuphela kufinyelela e-10. Abafundi bangagcwalisa izinombolo ezishiyiwe ngokulandelana ukwedlula e-10 uma: • Bekwenza bekhuluma / bephimisa; • Banikwa amakhadi ezinombolo ukuba bawafake ezikhaleni; noma • Banikezwa uhla lwezimpawu zezinombolo. Abafundi bangadweba umugqa besusela kwinombolo ekhethiwe iye kwisikhundla okufanele kusona. Ezinye izibonelo ozinekeziwe: Umugqa wezinombolo onezinombolo ezeqiwe  Ukulandelana okukhombisa ukubala uya phambili nasemumva ngokukodwa ezinye izinombolo zishiyiwe.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
2.2 **Amaphethini ezinombolo**			Abafundi baqondanisa izinombolo kuhla abalunikiwe. Badweba umugqa ukukhombisa lapho inombolo ekhethiwe izofakwa khona. 40, 41, 42, __, 44; __, __, 47, ___, 49, 50. 50, 49, 48, __, __, 45, 44, ___, ____, 41, 40 Okubhalwe ngolulandelana kuya phambili ngokuphindaphinda okushiwo ngenhla ezinye izinombolo zeqiwe Umugqa wezinombolo okhombisa ukuqala kwezikhawu, abafundi bagcwalisa ezinye.  Igridi yezinombolo ezibalwa ngoklandelana ezinye zivaliwe noma ezeqiwe. 1 | | 3 | | 5 | | 7 | | 9 | 11 | | 13 | | 15 | | 17 | | 19 |  Abafundi bangafaka umbala noma bamboze izinombolo lapho bebala ngokweqa. Uma kuphela iThemu uhla lwezinombolo luyakhuphuka kufinyelela ema-50. Abafundi bangasebenza ngokulandelanisa okuphelele 1-50 noma ngezingxenye zokulandelanisa.	Izifundo ezi-3

ITHEMU YE - 2 YEBANGA LOKU - 1 3. INDAWO NESIMO(IJIYOMETRI)				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO** **Okugxilwa kukho ngeThemu ye - 2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ihora nemizuzu enga - 24 isifundo)
3.1. **Isikhundla, ukubonisa kanye nendlela into ebukeka ngayo**	**ULimi oluchaza ukuthi into ikusiphi isikhundla** Chaza isikhundla sento ngayinye ukuthi ikuphi kunenye, isib. ngaphezulu kwe-, ngaphambi kwe- , ngemuva kwe, ngakwesonxele, ngakwesokudla, phezulu, phansi, eduze kwe- **Isikhundla nendlela into ebukeka ngayo** Qondanisa izindlela ezahlukene into efanayo yansuku zonke ebukeka ngayo. **Isikhundla kanye nezinkomba** Landela izinkomba ukunyakaza ekilasini. Landela imiyalelo ukubeka into ngayinye ngokuhlobana nokunye., isib. faka ipensela ebhokisini.		ULimi oluchaza ukuthi into ikusiphi isikhundla olwathuthukiswa eThemu yokuqala kufanele lwenziwe njalo ngesikhathi sokufundiswa kwekilasi lonke nangesikhathi sokufunda ngokugxila kumaqoqo kuze kuphele iThemu; chitha izikhashana nenza lolulimi lwesikhundla. Umsebenzi woLimi lwesikhundla ungaphethwa ngmsebenzi wokubhala njengokudweba, ukufaka umbala noma ukuqondanisa imidwebo namagama. Lokhu kungenziwa ngesikhathi sokusebenza ngokuzimela. Olunye uLimi lwesikhundla lungasetshenziswa uma abafundi besebenza ngezimo ezinhlangothimbili. (2-D)	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
3.2 **Izinto ezinhlangothintathu (3-D)**	Bona bese usho izinto ezinhlangothintathu ezisekilasini kanye nasezithombeni • okuyimbulunga (spheres) • iprizimu (prisms) **Izimpawu zezinto** chaza, hlela bese uqhathanisa izimo ezinhlangothintathu ngo- • bungako • ngombala • izinto ezigingqikayo • izinto ezishelelayo **Imisebenzi okugxilwa kuyo** Buka bese wakha izinto ezinhlangothintathu usebenzisa izinto eziphathekayo ezifana namabhuloki, izinto esezike zasebenza, izinto zokwakha.		Abafundi bangaqhubeka bakhe izinto besebenzisa izinto esezike zasebenza noma amabhuloki noma amabhokisi kamentshisi noma izinto zokwakha ngesikhathi sokusebenza ngokuzimela.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
3.3 **Izimo ezinhlangothimbili (2-D)**	**Uhla lwezimo** Bona bese usho izimo ezinhlangothimbili • izindilinga • onxantathu • izikwele **Izimpawu zezinto** Chaza, hlela, bese uqhathanisa izimo ezinhlangothimbili ngo: • bungako • ngombala • ngezimo • izinhlangothi eziqondile • amacala ayindilinga	**Uhla lwezimo** Bona bese usho izimo ezinhlangothimbili • izindilinga • onxantathu • izikwele **Izimpawu zezinto** Chaza, hlela, bese uqhathanisa izimo ezinhlangothimbili ngo: • bungako • ngombala • ngezimo • izinhlangothi eziqondile • amacala ayindilinga	Umsebenzi omningi wezimo oseBangeni lokuqala wenziwa ngezinto eziphathekayo. Wonke umsebenzi kumele uphethwe ngokwenza imisebenzi ebhalwayo. Abafundi baqala ngokudlala bekhululekile ngezimo ezahlukene, kufaka ukwenza izithombe ezenziwe ngezimo ezisejiyometri. Lokhu kungenziwa nagesikhathi sezifundo zamakhono empilo. Abafundi bakopisha izithombe ezenziwe ngezimo ezisejiyometri. Lezizithombe zingavela kuthisha noma encwadini. Lokhu kwenza abafundi babone izindilinga nezikwele ezinobungako obehlukene, izikwele nonxantathu abasezikhundleni ezahlukene, kanye nonxantathu abanezimo ezahlukene. Lokhu kungenziwa ngesikhathi sokusebenza ngokuzimela. Lokhu kungenziwa nagesikhathi sezifundo zamakhono empilo. **Ukuqhathanisa nokuchaza izimo ezinhlangothimbili: ubungako** Abafundi baqhathanisa ubungako bezimo ezifanayo, isib. • hlela izindilinga kusukela kwencane kahkulu kuya kwenkulu kakhulu;bese • ufaka zonke izikwele noma okulinanayo ndawonye. Sebenzisa uLimi oluchaza ubungako ukuqhathanisa izimo ezahlukene, isib. “Ngidwebe unxantathu phakathi esikweleni, ngakhoke unxantathu mncane kunesikwele”. **Ukuchazwa izimo ezinhlangothimbili: umbala** Abafundi bakhuluma ngemibala yezimo bese behlela izimo ngokwemibala yazo. Ukukhomba bese usho izinto nemibala yazo, kanye nokuqhathanisa ubungako bezinto kungenziwa ngesikhathi kwenziwa amaphethini. **Ukubona bese usho izindilinga, onxantathu nezikwele** Abafundi kufanele basebenze ngezindilinga nezikwele ezinobungako obehlukene, kanye nonxantathu abame ngezindlela ezingafani. Kubalulekile ukuthi abafundi bangaboni kuphela isibonelo esisodwa sesimo. Amasethi amaningi athengiswayo ezimo anikeza isibonelo esisodwa vo sikanxantathu. Abafundi kufanele bakwazi ukubona:	Izifundo - 3

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
3.3 **Izimo ezinhlangothimbili (2-D)**			• Onxantathu abame ngezindlela ezahlukene babuye babheke ezindaweni ezahlukene. Abanye onxantathu bafaka laba abalandelayo:  • Izikwele zobungako abehlukene zibekwe ezindaweni ezahlukene. Lezi ngezinye zezikwele:  • Izindilinga zobungako obehlukene:  Kuyasiza ukuthi abafundi basebenze ngezimo zemifanekiso esezisikiwe. Lokhu kuvumela abafundi ukuthi babone onxantathu abehlukene nezikwele ezibekwe kwizikhundla ezahlukene. Abafundi bahlela izimo ngokuma kwazo, njengokuthi: zinamacala ayindilinga noma aqondile. Abafundi bahlela baqoqele ndawonye izimo ngokuma kwazo: izikwele ndawonye, ngonxantathu, izindilinga izikwele, njll. Umsebenzi uphethwa ngokuthi babhale. Lemisebenzi ingafaka umsebenzi wokufaka umbala, ukuqondanisa amagama nezimo njll.	

ITHEMU YESI - 2 YEBANGA LOKU-1 4. ISILINGANISO				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO** **Okugxilwa kukho ngeThemu ye - 2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ihora nemizuzu enga - 24 isifundo)
4.1 **Isikhathi**	**Ukudlula kwesikhathi** Khuluma ngokudlula kwesikhathi • Hlela izigameko ezivamile empilweni yabo (abafundi) • Qhathanisa ubude besikhathi usebenzisa ulimi, isib. okude ngokuthe xaxa, okushesha ngokuthe xaxa, kuhamba kancane • Hlela izigameko usebenzisa ulimi njengokuthi: izolo, namuhla, kusasa **Ukusho isikhathi** • Sebenzisa ulimi ukuchaza isikhathi uma into yenzeka, isib. ekuseni, ntambama, ebusuku, ngaphambi kwesikhathi, ngemumva kwesikhathi • Ukukwazi izinsuku zesonto • Ukwazi izinyanga zonyaka • Ukufaka izinsuku zabo zokuzalwa kwikhalenda		Abafundi kufanele bafunde ukukhuluma ngalokhu: • Ukulandelana kwezigameko • Ubude besikhathi Abafundi baqhubeka nokufunda izindlela zokukhuluma ngesikhathi nsukuzonke ngesikhathi sokufundiswa kwekilasi lonke noma iqembu okugxilwe kulo. Abafundi bakhuluma babuye baphendule imibuzo uma kwenzeka izinto besebenzisa ulimi njengokuthi: ekuseni, ntambama, ebusuku. Abafundi balandelanisa izigameko besebenzisa ulimi njengokuthi: izolo, namuhla, kusasa, izinsuku zesonto kanye nezinynga zonyaka. Abafundi baqhathanisa ubude besikhathi besebenzisa ulimi njengokuthi: esikhathi eside ngokuthe xaxa, esifushane ngokuthe xaxa, nesishesha ngokuthe xaxa, esihamba kancanyana. Abafundi bakhuluma ngokuhlelwa kwezigameko ezenzeka empilweni yabo. Babuye bahlele izithombe ngokulandelana kwazo njengokuhti: • Izindlela zokwenza itiye; • Izithombe ezikhombisa ukukhula kwengane ize ibe ndala; • Ukukhula kwesilwane; • Izigameko ezejwale ukwenzeka ngosuku (ukuvuka, ukuba sesikoleni, ukudlala, ukudla isidlo santambama, ukulala). Abafundi bayaqhubeka bakhombise izinsuku zabo zokuzalwa kwikhalenda unyaka wonke.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
4.2 **Ubude**	**Ukukala okungahlelekile** • Qhathanisa bese uhlela ubude, ukuphakama, noma ububanzi bezinto ezimbili nangaphezulu ngokuzibeka eduze kwezinye • Sebenzisa ulimi ukukhuluma ngokuqhathanisa, isib. okude ngokuthe xaxa, okufishane kakhulu, okude kakhulu, okubanzi ngokuthe xaxa • Qagela, linganisa, qhathanisa, hlela, bese ubhala phansi ubude bento usebenzisa isikali esingenasilinganiso, isib. izandla, izinto zokubala, njll.		Zonke izilinganiso eBangeni 1 azihlelekile. Asikho isikali sobude esinesilinganiso esenziwayo. EThemu yokuqala, isiphakamiso wukuthi abafundi kumele bagxile kulokhu: • Ukuqhathanisa okuqondile kwezinto ngokuzibeka eduze kwenye; • Ukuhlela nokuqhathanisa ubude noma ukuphakama kwezinto ezintathu nangaphezulu, ngokubeka izinto ezihamba ngazimbili eduze kwenye kuze kube zonke izinto sezilandelaniswe kahle; kanye • Ukuthuthukiswa kolimi ukuze kuxoxwe ngobude, ngokuphakama, ngobubanzi, njll. Ngesikhathi sokusebenza ngayedwa ithemu yonke, abafundi bangenza babuye bahlanganise ukuhlela nokuqhathanisa ubude, ububanzi, bezinto ezihamba ngantathu nangaphezulu nokubeka izinto ezihamba ngakubili eduze kwenye ukuze zonke izinto zibekeke ngokulandelana. Wonke umsebenzi kufanele ubhalwe phansi.	
4.3 **Isisindo**	**ISILINGANISO okungahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhal phansi isisindo usebenzisa isikali esingenasilinganiso nokukala ngokulinganisa • Sebenzisa ulimi ukukhuluma ngokuqhathanisa, isib. kulula, kuyesinda, kulula kakhulu, kusinda kakhulu		Zonke izilinganiso eBangeni 1 azihlelekile. Asikho isikali sobude esinesilinganiso esenziwayo. EThemu yokuqala, isiphakamiso wukuthi abafundi kumele bagxile kulokhu: • Qhathanisa ngokuqondile isisndo sezinto; • Ukuhlela nokuqhathanisa isisindo sezinto ezintathu nangaphezulu ngokuthi abeke izinto ezihamba ngazimbili kuze kulingane nxazombili, kuze kuhlelke zonke izinto; • Ukuthuthukiswa kolimi ngokukhuluma ngokwehluna kwezisindo. Ngesikhathi sokusebenza ngayedwa iThemu yonke, abafundi bangenza babuye bahlanganise ukuhlela nokuqhathanisa ubude, ububanzi, bezinto ezihamba ngantathu nangaphezulu nokubeka izinto ezihamba ngakubili eduze kwenye ukuze zonke izinto zibekeke ngokulandelana. Wonke umsebenzi kufanele ubhalwe phansi.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
4.4 **Umthamo**	**Isilinganiso esingahlelekile** • Qhathanisa ubuye uhlele inani lomthamo kwizitsha ezimbili ezibekwe eduze kwesinye. Abafundi baqinisekisa ngokuthi babuye bathele esitsheni sesithathu uma kunesidingo • Qhathanisa ubuye uhlele inani lomthamo ongathathwa izitsha ezimbili ezigcwele • Sebenzisa ukukhuluma ngokuqhathanisa, isib. okungaphezu kokunye, okungaphansi kokunye, okugcwele, okungenalutho • Qqgela bese ulinganisa, uqhathanisa ubuye uhlele umthamo wezitsha usebenzisa isikali esingenasilinganiso, isib. izipuni, izinkomishi	**Isilinganiso esingahlelekile** • Qhathanisa uhlele inani lomthamo osezitsheni ezimbili ezibekwe ndawonye. Abafundi bahlola umthamo ngokuthi bathele esitsheni sesithathu uma kunesidingo • Qhathanisa uhlele inani lomthamo elingathathwa izitsha ezimbili uma zigcwele • Sebenzisa uLimi ukukhuluma ngokuqhathanisa, isib. okungaphezu kwe-, okugcwele • Hlawumbisela, ulinganise, uqhathanise, uhlele ubuye ubhale phansi umthamo wezitsha ngokusebenzisa isikali esingenasilinganiso, isib. izinkomishi, izipuni	Zonke izilinganiso eBangeni 1 azihlelekile. Asikho isikali sobude esinesilinganiso esenziwayo. Isiphakamiso sokugxilwa kukho ngeThemu yoku - 1 kusekuthuthukisweni koLimi ngokuxoxa ngokuqhathanisa umthamo NgeThemu yei - 2, kugxilwa ekuqhathanisweni okuqondile. NgeThemu yesi - 4 kugxilwa ekusebenzeni ngamaunithi angahlelekile okulinganisa. Abafundi benza bahlanganise imiqondo ngesikhathi sokusebenza ngabodwa unyaka wonke. **Ukuqhathaniswa okuqondile komthamo osezitsheni** • Ukuthuthukiswa kokuqonda umthamo kusetsheenziswa uLimi. Abafundi baqala ukucabanga nokukhuluma ngomthamo ngokuqhathanisa umthamo osezitsheni ezimbili (noma imidwebo yezitsha emibili efanayo). Kugxilwa kulokhu: - Kugcwele noma akunalutho; - Okungaphezu kwe / okungaphansi kwe-; - Okufana ne-. Abafundi bagcwalisa babuye bathulule izitsha • Qhathanisa umthamo wokubili nokungaphezulu kwizitsha ezingafani ngokuthi bathele kwesesithathu isitsha. Uma abafundi sebengakhuluma ngemithamo (kugcwele, akunalutho njll), bese beqhathanisa imithamo (ebonakalayo ukuthi ayifani uma uyibuka) esezitsheni ezifanayo, bangaqhubeka baqhathanise umthamo osezitsheni ezimbili ezingafani. Gxila ikakhulukazi ezitsheni ezibanzi neziwumtshumo, isib. - Gcwalisa ngokufanayo amabhodlela angamalitha amabili kanye nebhodlela elinguhhafu welitha; - Buza abafundi ukuthi yimaphi amabhodlela aphethe okuningi. Abafundi bahlola ngokuthi bathele uketshezi esitsheni sesithathu bese bebeka umaka.	Izifundo 2

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
4.4 **Umthamo**			Abafundi abancane esikhathini esiningi abakubheki ububanzi besitsha uma bephawula ngomthamo; esikhathini esiningi babheka ukuthi kugcwele kangakanani. Abafundi kufanele banikezwe ulwazi olwanele ekuqhathaniseni umthamo ezitsheni ezinobubanzi obehlukene. **Ukubhala phansi** Abafundi kufanele babhale phansi wonke umsebenzi abawenzile.	

IBANGA 1 ITHEMU YESI - 2 5. UKUQOKELELWA KOLWAZI				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO** **Okugxilwa kukho ngeThemu ye - 2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ihora nemizuzu enga - 24 isifundo)
Ukusebenza ngezinto eziqoqiwe				
5.1 **Qoqa bese uhlela izinto**	**Qoqa bese uhlela izinto** Qoqa bese uhlela izinto nsukuzonke	**Qoqa bese uhlela izinto** Qoqa bese uhlela izinto nsukuzonke	Bheka amanothi kathemu 1 NgeThemu yesi - 2 abafundi bayaqhubeka basebenze ngezinto eziqoqiwe ngendlela efanayo kodwa usizo lube luncane. Uma abafundi sebenikeziwe umhlahlandlela ngokuhlela nokumela okuqoqiwe ngesikhathi sokufunda ngamaqoqo. Uma abafundi sebezililongile ukuphendula imibuzo ngamaqoqo, sebengaqala ukubuzwa nokuchazwa kwamaqoqo ezinto ngaphandle kokubanikeza izinkombandlela zemibuzo.	Isifundo 1
5.2 **Okumele iqoqo lezinto eziqoqiwe**	**Okumele iqoqo lezinto eziqoqiwe** Dweba isithombe sezinto eziqoqiwe.	**Okumele iqoqo lezinto eziqoqiwe** Dweba isithombe sezinto eziqoqiwe		
5.3 **Xoxa ubuye ubike ngezinto eziqoqiwe**	**Xoxa ubuye ubike ngezinto eziqoqiwe** • Nika izizathu zokuthi okuqoqiwe kuhlelwe kanjani • Phendula imibuzo ngalokhu - Zihlelwe kanjani izinto - Lokhu okuqoqiwe kubukeka kanjani • Chaza ukuqoqeka nokudwetshwa kwezinto. Chaza ukuthi kuhlelwe kanjani	**Xoxa ubuye ubike ngezinto eziqoqiwe** • Nika izizathu zokuthi okuqoqiwe kuhlelwe kanjani. • Phendula imibuzo ngalokhu - Zihlelwe kanjani izinto - Lokhu okuqoqiwe kubukeka kanjani • Chaza ukuqoqeka nokudwetshwa kwezinto Chaza ukuthi kuhlelwe kanjani		
Okuphakanyisiwe: ukusebenza ngokuqokelelwa nokuhlelwa kolwazi lwezibalo kugxilwa kukho ngeThemu yes - 3 neye - 4				

ITHEMU YESI - 3 YEBANGA LOKU-1 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANE BAZO				
IZIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka**	**UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)**
UKUTHUTHUKISA ULWAZI LWEZINOMBOLO: Ukubala usebenzisa izinombolo eziphelele				
1.1 **Bala izinto eziphathekayo**	Bala izinto eziphathekayo kuya ezingama-50 Qagela inani lezinto esingaziibala ngokuyikho.	Bala izinto eziphathekayo kuya ezingama-40 Qagela inani lezinto esingaziibala ngokuyikho.	**Yimuphi umehluko ku-Themu 2?** Kuthemu 3, abafundi bangeza uhla lokubala. Kusekhona ukubheka ngokuqonda indlela emiselwe yokusenza kwenombolo nhloko. Ngalethemu abafundi kumele bafunde indlela yokubeka izinto eziphathekayo ngokulandelana uma bebala ukuze uma bebheka ukubala, amalungiselelo abasiza ekubaleni kakhulu kalula. Isibonelo, ukubala kubekwe emgqeni.  Ngalethemu abafundi baqhubeka nokwengeza amakhono okubala nokufunda. • Ukubala konke • Ukuqhubeka nokubala • Indlela emiselwe yokusenza kwenombolo nhloko kanye • Ukusebnza ngethekisthi ebhaliwe. **Ukuqagela inombolo eyakhe iqoqo** Abafundi baqhubeka nokufunda nokubona iqoqo elincane lezinto. **ukubala ngamaqembu** Ukuze kusizwe abafundi ukubala ngezikhawu ezimbili, ezinhlanu nezi - 10, kudingeka bahlanganise izinto ngokubili, ngokuhlanu kanye nokuyi- 10 ukuze kubalwe iqoqo lezinto. Amakhadi ezinombolo kufanele abonise kuko konke okuqoqiwe ukubonisa izinombolo zezinto ezibaliwe. Ukubala ngamaqembu kuzolungiseslela abafundi ekwazini ukuphindaphinda. **Izinsiza:** Qaphela ukubheka izinhlobo zezinsiza ezisetshenziswayo. • Izinsiza ezihlelekile, ubuhlalo bokubala obusentanjeni bungasetshenziswa. • I-abhakhasi ingasetshenziswa ukufunda ukubala ngeqembu leshumi. • Bangenza inyanda yokubili, inyanda yoku-5 kanye neyeshumi ngezinti zikamentshisi noma ngezingodo zokubala bese uzibala zonke.	

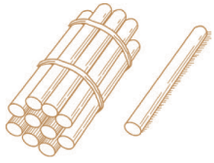
IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.2 Bala uyaphambili ubuye uhlehle	**Bala uyaphambili ubuye uhlehle kanje** • Ngakunye kusukela kunoma iyiphi inombolo phakathi kuka -0 kuya ku-100. **Bala uya phambili kanje:** • Ngama-10 kusuka kunoma iyiphi inombolo phakathi kuka -0 kuya kuma -100. • Ngaku -5 kusuka kunoma iyiphi inombolo kuya kma -100 • Ngaku -2 kusuka kunoma iyiphi inombolo kuya kuma -100	**Bala uyaphambili ubuye uhlehle kanje** • Ngakunye kusukela kunoma iyiphi inombolo phakathi kuka -0 kuya kuma 80. **Bala uya phambili kanje:** • Ngama-10 kusuka kunoma iyiphi inombolo phakathi kuka -0 kuya kuma -80. • Ngaku -5 kusuka kunoma iyiphi inombolo kuya kma -80 • Ngaku -2 kusuka kunoma iyiphi inombolo kuya kuma -80	**Yimuphi umehluko ku-Themu 1?** Ku-Themu 3, abafundi babala ukufika ku-80 Baqhubeka nokubala ngokuphindiwa oku-2, 5 noku- 10. **Umsebenzi oqhubekayo:** **Umsebenzi wekilasi lonke** Bala uyaphambili ubuye uhlehle kuya kuma- 80 • Abafundi babala baye phambili babuye bahlehle. • Uthisha ukhomba izinombolo eziseshadini abafundi bebala kuya ku-70. • Abafundi babala ngokuhlanu kusuka kuma-25 kuya ku- 60. • Abafundi babala ngeshumi beya phambili kusoka ku- 0 kuya ku- 80. Ukubala wenqa usebenza ngokuhlanu nangeshumi kuya kuma- 80. • Abafundi babala ngeshumi kuya kuma - 50 uthisha ekhomba ishadi lezinombolo. • Uthisha ukhomba ukuphindaphinda ngokuhlanu kushadi le - 100 abafundi bebala. • Abafundi babala baye phambili babuye bahlehle ngeshumi. Basebenzisa ishadi le -100, kumele basebenzise imiyalelo efanayo: • Ukubala ngeshumi uqale kuma-20. • Ukubala uhlehle ngokukodwa kusuka kuma-56. • 80, 70, 60: shono izinombolo ezintathu ezilandelayo usebenzisa ishadi le-100. **Ukusebenza ngokuzimela** Amakhono okubala ngokwenqa kufanele asetshenziswe emsebenzini obhaliwe. Isibonelo: Abafundi bazobuka behambisa amehlo: • Beqedela uhla lwezinombolo ngokulandelana; kanye • Gcwalisa ngezinombolo ezishodayo emgqeni olandelanayo kanye nasemgqeni wezinombolo. • Bhala ezinye izinombolo ezimbili 66, 65, 64,__, __,	

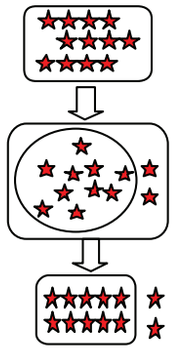
IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.3 **Uphawu negama lenombolo**	**Ukufunda nokwazi izinombolo** • Ukufunda nokwazi uphawu lwezinombolo kusuka ku-0 kuya kwi-100. • Bhala izimpawu zezinombolo kusuka ku-0 kuya kwi-100 • Ukufunda nokwazi amagama ezinombolo kusuka ku-1 kuya kwi-10 • Bhala amagama ezinombolo kusuka ku-1 kuya kwi-10	**Ukufunda nokwazi izinombolo** • Ukufunda nokwazi uphawu lwezinombolo kusuka ku-0 kuya ku-80 • Bhala izimpawu zezinombolo kusuka ku-0 kuya ku-80 • Ukufunda nokwazi amagama ezinombolo kusuka ku-1 kuya kwi-10 • Bhala amagama ezinombolo kusuka ku-1 kuya kwi-10	**Yimuphi umehluko ku-Themu 2?** Ku-Themu 3, uhla lwezinombolo lukhulu kuya ku-80. Kulindeleke ukuthi abafundi babhale izimpawu zezinombolo ukufika ku-20. Kudingeka ukuthi bakwazi ukwenza lokhu ngoba bazobala bafike kuma- 20 bese bebhala izibalo eziwumugqa. Abafundi baqhubeka nokufunda nokubhala amagama ezinombolo. Kumele bakwazi ukuqhathanisa izimpawu emagameni ezinombolo. Imisebenzi esencwadini yokusebenzela kanye nokubhalwa kwaseklasini - imisebenzi esencwadini ingenziwa ngesikhathi sokukhululeka. Isibonelo somsebenzi obhaliwe: Qondanisa amagama ezintweni Kanye ✂ Kubili ✱ ✱ ✱ ✱ Kuthathu ✸✸ Kune ✶✶✶✶✶✶ Kuhlanu ✖✖✖✖✖✖✖✖✖✖ Isithupha ✺✺✺ Isikhombisa ✷✷✷✷✷✷✷ Isishiyagalombili ※ ※ ※ ※ ※ Shumi ✦✦✦✦✦✦✦✦✦ **Yini okulindelekile kubafundi?** • Ukuthi bangafunda izimpawu zezinombolo kuya ku-50 • Ukuthi bangabhala izimpawu zezinombolo kuya ku-20 • Ukuthi bangafunda amagama ezinombolo kuya ku-10 • Ukuthi bangabhala amagama ezinombolo kuya ku-10	

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1.4 **Chaza, qhathanisa bese uhlela izinombolo**	**Hlela uqhathanise izinto** • Qhathanisa amaqoqo ezinto ngobuningi / okumbalwa; ngokuningi kuno; okuncane kuno; kuningi ngango, okuhlukene • Qoqa uhllele izinto ngokuningi kuya kokuncane nokuncane kuya kokuningi. • Uhla kufinyelela ezintweni eziyi-100 **Hlela uqhathanise izinamba** • **Hlela izinamba** - Kusukela kokuncane kuya kokukhulu; kusuka kokukhulu kuya kokuncane - engaphambi li, engmuva, ephakathi nendawo - Usebenzisa umugqa wezinombolo ka 0 kuya kuoku -100	**Hlela uqhathanise izinto eziyi-15** • Qhathanisa amaqoqo ezinto ngobuningi / okumbalwa; ngokuningi kuno; okuncane kuno; kuningi ngango, okuhlukene • Qoqa uhllele izinto ngokuningi kuya kokuncane nokuncane kuya kokuningi. • Uhla kufinyelela ezintweni eziyi-15 **Hlela uqhathanise izinamba ufike ku-15** • **Hlela izinamba** - Kusukela kokuncane kuya kokukhulu; kusuka kokukhulu kuya kokuncane - engaphambi li, engmuva, ephakathi nendawo - Usebenzisa umugqa wezinombolo ka 0 kuya kuoku -80	**Yimuphi umehluko ku-Themu 2?** Ku-Themu 3, abafundi baqhubeka: • Hlela uqhathanise ukuqoqwa kwezinto; • Hlela uqhathanise izinombolo; uphinde • Usebenzise ulimi lokuhlela nokuqhathanisa. **Umsebenzi oqhubekayo:** Uthisha uzosho izinamba isibonelo: 12 Uthisha uzobuza imibuzo: Iphi inamba emgqeni wezinombolo? Iyiphi inamba eza ngaphambi kwe-12? Iyiphi inamba eza ngemuva kwe-12 i-12 likhulu ngoku-1 kune _____ i-12 lincane ngoku-1 kune _____	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.4 **Chaza, qhathanisa bese uhlela izinombolo**	• Qhathanisa izinombolo ngokuthi inkulu kuna / incane kuna ining kuna / kumbalwa kuna; kulingana na • Okukodwa nokukodwa okuhambisanayo • Uhla lwezinombolo kufinyelela kweziyi-100 **Sebenzisa izinombolo ezijwayelekile ukubonisa ukuhleleka, indawo noma isikhundla** • Hlela izinto ngokulandelana kusukela kweyokuqala kuya kweyeshumi. Hlela izinombolo ngokulandelana ukusuka kweyokuqala ukuya kweyeshumi	• Qhathanisa izinombolo ngokuthi inkulu kuna / incane kuna ining kuna / kumbalwa kuna; kulingana na • Okukodwa nokukodwa okuhambisanayo • Uhla lwezinombolo kufinyelela kweziyi-15 **Sebenzisa izinombolo ezijwayelekile ukubonisa ukuhleleka, indawo noma isikhundla** • Hlela izinto ngokulandelana kusukela kweyokuqala kuya kweyeshumi, yokugcina (izinombolo ezilandelanayo).		

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1.5 **Ubungako benani lenombolo**	Ukubona ubungako benani lezinombolo ezimbili zedigithi -kuya ku-20. • Hlukanisa izinombolo ezingamadigithi ahamba ngamabili ngeshumi nangokukodwa kuya ku-20 Isib: i-12 yi-10 kanye no-2	Ukubona ubungako benani lezinombolo ezimbili zedigithi -kuya ku-15. • Hlukanisa izinombolo ezingamadigithi ahamba ngamabili ngeshumi nangokukodwa kuya ku-15 Isi: i-12 yi-10 kanye no-2	**Yimuphi umehluko ku-Themu 2?** Kuleli Themu abafundi baqala ukuhlukanisa izinombolo ngeshumi nangokukodwa usebenzisa: • Amaqoqo ezinto eziyishumu • Indlela yokubhala 14 = 10 no 4. Ukuqonda okuphelele kobungakho benani kuthuthuka kudlulele eBangeni eliphansi naseBangeni eliphakathi. Ku-Banga 1 abafundi baqala ukucabanga ngamaqoqoq ezinto eziyishumu noma izinto ezingamaqoqoq. Baqala ukwenza ushintsho ekuboneni okuyishumi iqoqo elilodwa noma ishumi elilodwa. Ukuqala ukuqonda ubungakho benani kuleli - Themu, abafundi kudingeka: • Bazi amagama ezinombolo bazibale ngokulandelana ngokuzethemba okungenani kuya ku-20 • Bhala ufunde uphawu lwezinombolo, • Yenza ukubala nokususa okulula; • Ukubala izinto eziphathekayo ngokuzibeka ngamaqoqo, kanye • Ukwazi ukwethula ngamaqoqoqo. **Ukuhlakaza izinombolo ngamashumi nangokukodwa ngamaqoqo** Ku-Banga 1 kubhekwa ukwenza amaqoqo ezinto eziyishumi nokukodwa okuseceleni. Ngaphambi kokuhlakaza izinombolo ngamashumu nangokukodwa, abafundi kumele bazilungiselele ngokwanele ukuhlakaza izinombolo ngokuhlukana ku-Themu 1 no-2. Lokhu kumele kwenziwe nangendlela yokubhalwa. **Sebenzisa izinsizakufunda eziphathekayo** Izinto eziphathekayo zisebenza kangcono ukuqonda kwabo izinombolo, ukumela izinombolo nendlela okumele zisebenze ngayo nobungakho benani. Uma ubala ngamashumi uhlele amaqoqoqo ngamashumi, abafundi bazoqala ukuqonda ukuthi ukuphindaphinda kwe-10 kuholela olwazini lokubala isib: 26, 27, 28, 29, 30, 31. Kumele babenolwazi kuqala lokuthi amagama nezimpawu eziyi-10 zimele okukodwa.	

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1.5 **Ubungako benani lenombolo**			Ukusebenza ngezinsizakufunda eziphathekayo ngokwamaqoqoqo ezinto ukwakha ngamashumi kokukodwa ukwazi ukuthi - 10 iqembu leshumi nokukodwa okuseceleni. Bonisa abafundi kalula amaqoqoq ngokweshumu batshelwe ukuthi u-14 okuyishumi kanye no-4 nokukodwa okuseceleni. Amaqoqoqo ezinto eziseceleni enza amaqoqoqo okuyishumi okuletha umqondo. Ukusebenzisa i-abacus, abafundi bakwazi: Ishumi elilodwa, ishumi elilodwa nemivo e-2, ishumi elilodwa nemivo e-3 ishumi elilodwa nemivo e-4  Lindela abafundi ukuthi babale umuvo ukwenza amaqoqoqo alishumi. Kwabaningi kuzoba yiyona ndlela yamagama ezinombolo noma uthi mangakhi. Kunezinduku eziyi-11. Abafundi bazokwakha inyanda yezinduku eyi-10 bese kusala induku eyodwa eceleni.  Amabhulokhi angaxhunywa ukwakha umbhoshongo  Ubungakho benani lamakhadi kungasetshenziswa ukubonisa okuyishumi nokukodwa.	

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1.5 **Ubungako benani lenombolo**			**Baqhubekela kokubhalwayo** **Izithombe ezizomela izinto eziyishumi nokuseceleni** Abafundi bangavezwa nezithombe ezivumela amaqoqoqo ayishumi nokuseceleni okusele. **Isibonelo:** Ekupheleni kwe-Themu abafundi kumele bakwazi ukubhala: 13 = 1 okuyishumu noku- 3 nokukodwa okusecelelni 13 = 10 noku- 3 **Izinsiza ezinconywayo** Izinto zingahlelwa ngamaqoqoqo: • Izinduku zokubala • Okubalwayo okubhekwayo • Izinti zikamentshisi • Izinti zika-ayisikhilimu • Amabhulokhi ahlanganayo • Ubuhlalu bokubala • Ama-abakhasi 	

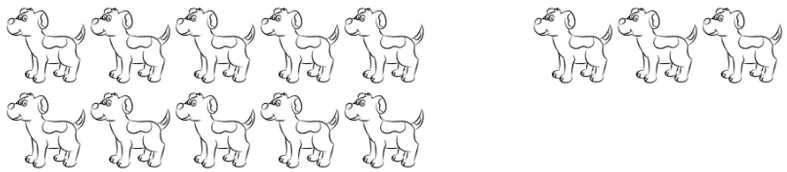
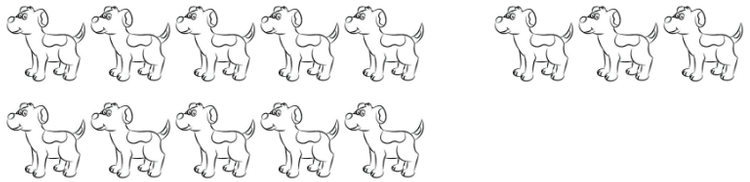
IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.6 **Amaqhinga okuxazulula izinkinga zezibalo**	Sebenzisa lamaqhinga alandelayo ukuxazulula izinkinga zezibalo bese uchaza isisombululo kanje: • Sebenzisa izinsizakufunda eziphathekayo • Sebenzisa izithombe ukubonisa izibalo eziyingxoxo • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili • Sebenzisa umugqa	Sebenzisa lamaqhinga alandelayo ukuxazulula izinkinga zezibalo bese uchaza isisombululo kanje: • Sebenzisa izinsizakufunda eziphathekayo • Sebenzisa izithombe ukubonisa izibalo eziyingxoxo • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili • Sebenzisa umugqa wezinombolo owakhiwe ngezinto eziphathekayo	**Yimuphi umehluko ku-Themu 2?** Amaqhinga okubala uqhubeke nokuphindaphinda. Ukuphinda kabili nokuhlukanisa phakathi kokubili kungasetshenziswa kumaqhinga okubala kule-Themu. Abafundi baqhubeke bephindaphinda kabili nokuhlukanisa ezinkingeni zamagama ezimo ezijwayelekile ezimweni ezikhululekile. Ekuqcineni kwaleli-Themu abafundi baqala ukucazulula izinkinga zamagama basebenzisa lamaqhinga • Dweba noma izinsizakufunda • Ukwakha nokuhlakaza izinombolo • Phindaphinda kabili ubuye uhlukanise kabili • Umugqa wezinombolo Bheka amanothi e-Themu 2	
1.7 **Ukuhlanganisa nokususa**	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo esebenzisa ukuhlanganisa nokususa ezibalweni ezinika umphumela ofika ku-20.	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo esebenzisa ukuhlanganisa nokususa ezibalweni ezinika umphumela ofika ku-15.	**Yimuphi umehluko ku-Themu 2?** Buka amanothi e-Themu 2 kodwa usebenze ngezinombolo kuya ku-15.	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.8 **Ukuphindaphinda ukuhlanganisa okuzoholela ekuphindaphindeni**	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo esebenzisa ukuhlanganisa nokususa ezibalweni ezinika umphumela ofika ku -20	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo esebenzisa ukuhlanganisa nokususa ezibalweni ezinika umphumela ofika ku-15	Buka uThemu 2 isibonelo senkinga kodwa sebenza ngezinombolo kuya ku- 15.	
1.9 **Ukwenza amaqoqo kanye nokuhlukaniselana okuholela ezibalweni zokuhlukanisa**	Uxazulula izinkinga zezibalo zamagama ezisesimweni esij-wayelekile bese uchaza isisombululo esebenzisa ukuhlanganisa noku-susa ezibalweni ezinika umphumela ofika ku-20 kanye nezimpendulo ezifaka izinsalela	Uxazulula izinkinga zezibalo zamagama ezisesimweni esij-wayelekile bese uchaza isisombululo esebenzisa ukuhlanganisa noku-susa ezibalweni ezinika umphumela ofika ku-15 kanye nezimpendulo ezifaka izinsalela.	Buka uThemu 2 isibonelo senkinga kodwa sebenza ngezinombolo kuya ku- 15	

ITHEMU YESI - 3 YEBANGA LOKU-1 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANE BAZO				
IZIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka**	**UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)**
1.11 Imali	• Ukubona ukhombe imali yaseNingizimu Afrika - ewuhlweza 5c, 10c, 20, 50c, R1, R2; R5 - yephepha R10 no R20 • Ukuxazulula izinkiknga zemali eziyingxoxo ezi-faka isamba noshintshi kuyofika ku R20 no 20c	• Ukubona ukhombe imali yaseNingizimu Afrika ewuhlweza 5c, 10c, 20, 50c, R1, R2; R5 • Ukuxazulula izinkiknga zemali eziyingxoxo ezi-faka isamba noshintshi kuyofika ku R20 no 20c	**Inani - eliwuhlweza** Abafundi basebenza ngama- R1, R2, R5, R10 no R20 yephepha. Bahlanganisa inani elifika ku-R20 ngokusebenzisa umdlalo wumali. Isibonelo: R5 + R10 = R15 R10 + R10 + R10 =R30 - ukuhlanganisa okuphindiwe R5 +R2 + R8 = R15 - gcwalisa kuya ku- 10 **Ushintshi owuhlweza** Abafundi basebenza ngama- R1, R2, R5, R10 no R20 yephepha. Bakhipha inani ngokusebenzisa imali yephepha. Abafundi baqedela umsebenzi lapho besebenza ngoshintshi wezinto abazithengile ngo-R20 nama ngemali engaphansi. Isibonelo: R10 - R8 =R2 R15 - R5 =R10	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
UKUBALA				
1.12 **Amaqhinga** **(izindlela noma amasu)**	Sebenzisa lamaqhinga alandelayo ukuxazulula izinkinga zezibalo bese uchaza isisombululo kanje: • Sebenzisa izinsizakufunda eziphathekayo • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili • Sebenzisa umugqa wezinombolo	Sebenzisa lamaqhinga alandelayo ukuxazulula izinkinga zezibalo bese uchaza isisombululo kanje: • Sebenzisa izinsizakufunda eziphathekayo • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili • Sebenzisa umugqa wezinombolo owakhiwe ngezinto eziphathekayo njengobuhlalu	Kulindeleke ukuthi abafundi baxazulule ukubala esimweni esikhululekile basebenzisa amaqhinga alandelayo: • Ukwakha nokuhlakaza izinombolo • Phindaphinda kabili ubuye uhlukanise kabili • Umugqa wezinombolo Bheka amanothi e-Themu 2	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.13 **Ukuhlanganisa nokususa**	**Uhla lwezinombolo: 0 - 20** • Izibalo hlanganisa kuyofika ku- 20 • Izibalo zokususa ku 20 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Enza uphindelela amabhondi kuze kufike ku-10	**Uhla lwezinombolo: 0 - 15** • Izibalo hlanganisa kuyofika ku- 15 • Izibalo zokususa ku 15 • Sebenzisa izimpawu ezifanele(+, –, =, ☐) • Enza uphindelela amabhondi kuze kufike ku 9	**Yimuphi umehluko ku-Themu 3?** Ku-Themu 2, uhla lwezinamba zokubala lwengezeke kusuka ku-10 kuya ku- 15 Ukuze usebenze ngezimpawu zokuhlanganisa nokukhipha abafundi kumele babe nolwazi oluthuthukile. • Sebenzisa uqonde ulimi lokuhlanganisa nelokususa. • Bala konke • Bala uqhubeke kuzinombolo ezinkulu • Hlela uqhathanise izinombolo **Amaqhinga okubala uma uhlanganisa noma ukukhipha** Kuleli Themu abafundi bazoqhubeka nokusebenzisa lamaqhinga • Wenze ukuhlanganisa ngokubala konke. • Wenze ukuhlanganisa ngokubala ngokuqhubeka • Bala uqale ngezinombolo ezinkulu • Sebenzisa ukususa ngokukhipha • Susa ngokubala uhlehla Kuleli-Themu abafundi bazo: **Shintsha inombolo kuya eshumini baphinde basebenzise ukuhlanganisa okuyimivo.** Lamaqhinga angafundiswa kusetshenziswa uhla lwezinombolo olusezingeni oluphansi asetshenziswa nasezingeni eliphezulu.. Isibonelo: 9 + 6 = ☐ Abafundi bangazitshela ukuthi: “Ngizosusa okukodwa kokuyi-6 ngikuhlanganise nokuyi-9 kuzokwenzwa i-10” Kuwukuthi i-9 + 6 kungabhalwa kube i- 10 + 5 = 15 Isibonelo: 8 + 5 = ☐	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.13 **Ukuhlanganisa nokususa**			Abafundi bangazithsela ukuthi: “Ngizosusa oku-2 kokuyi-5 ngihlanganise nokuyi-8 kuzokwenza i- 10 Kuwukuthi 8 + 5 kungabhalwa kube i-10 + 3 = 13 Uma ufunda lamaqhinga, abafundi bazosebenzisa izinsizakufunda eziphathekayo ukuqonda iqhinga. Isibonelo: Enza iqoqo ngezinja ukwenza i-10  9 + 4  **10 + 3** $9 + 4 = 10 + 3 = 13$ **Hlakaza inombolo ibe izicucu ezincane ukuze ukubala kube lula** Abafundi bazohlukanisa izinombolo ngezinxenye ezahlukene. Bazohlukanisa izinxenye zezinombolo ezisebenzisekayo kubona.	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.13 **Ukuhlanganisa nokususa**			• Ukusebenzisa imicibisholo nezinombolo ukubonisa ukucabanga. 8 + 6 = □ 8 + 2 + 4 8 + 2 → 10 + 4 = 14 8 + 7 = V 8 + 2 + 5 8 + 2 → 10 + 5 = 15 15 - 9 = □ 15 - (5+4) 15 - 5 → 10 - 4 = 6 **Sebensisa ulwazi lwngaphambili lube amaqhinga** Amaqhinga aboniswe ngenhla avumela abafundi ukuthi bazi ukubala izinombolo ngokunikeza umqondo. Enza uphindelela amaqhinga ngaphansi kuzogqugquzela abafundi ukuthi babonise ubudlelwano phakathi kwezinombolo nokufundisa abafundi ukuthi basebenzise ulwazi ukuze bahlanganise. **Beka izinombolo ezinkulu kuqala ukuze kubalwe kuya phambili noma kuhlehle** 4 + 12 = □ Hlela 4 + 12 as 12 + 2 uphinde ubale oku-4 uqale 12. **Ukubona izinombolo eziseduze kweziphindeke kabili " Identify near doubles"** 7 + 6 Abafundi bangachaza izibalo ezingabhaleka kanje: 6 + 6 -1 noma 7 + 7 - 1 Abafundi bangahle babhale amaqhinga besebenzisa imicibisholo 6 + 6 → 12 + 1 = 13	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.13 **Ukuhlanganisa nokususa**			**Sebenzisa ulwazi lokuphikisa phakathikokuhlanganisa nokususa** 15 - 9 = ☐ Abafundi bayazi ukuthi ukubala kungabhalwa ngokuhlanganisa: “ngiyazi ukuthi 9 +☐ = 15.” Abafundi bangase basebenzise ukubala ukuze bakwazi ukwenza izibalo **Izinombolo ezakha inombolo** Ukuze usebenze uphindelele izinombolo ezakha izinombolo abafundi okumele banikezwe imisebenzi ehlukahlukene abazoyenza. Lokhu kwenziwa ngesikhathi sokukhululeka. Umugqa wezinombolo ungasetshenziswa enza uphindelela amabhondi kuze kufike ku 9 **Umqondo wokuphindaphinda** Abafundi kumele babhale umusho wezinombolo kule-Themu.. 1 + 1 = ☐ 2 - 1 = ☐ 2 + 2 = ☐ 4 - 2 = ☐ 3 + 3 = ☐ 6 - 3= ☐ 4 + 4 = ☐ 8 - 4 = ☐ Abafundi kumele baphendule imibuzo elandelayo: • Okuphindwe 3. • Yini okubili 3s? • Uginqike ka-6 okuphindwe kabili. Ufake okungaki? • Mangakhi amasokisi kumapheya ama-5?	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.14 **Ukuphindaphinda kokuhlanganisa okuholela ezibalweni zokuphindaphinda**	• Ukuhlanganisa ngokuphindaphinda (izinombolo ezifanayo) kuya ku- 20 • Sebenzisa izimpawu ezifanele (+, –, =, ☐)	• Ukuhlanganisa ngokuphindaphinda (izinombolo ezifanayo) kuya ku- 15 • Sebenzisa izimpawu ezifanele (+, –, =, ☐)	**Yimuphi umehluko ku-Themu 2?** Ku-Themu 3, abafundi baqhubeka nokwakha ulimi ngokuphindaphinda kokuhlanganisa. Isibonelo: • Amaqoqo ama-2 ezinto ezi-3 • Amaqoqo ama-4 ezinto ezi-2 Abafundi baqhubeka nokubhala imisho yezinombolo okwethulwa okusazithombe. Ukubala okweqayo kumele kuqhubeke ukuze kusize abafundi ekubala izinto eziqoqelwe ezithombeni. Uma izithombe noma izinto eziqoqwe ngokubili abafundi kumele babale ngokubili hhayi ngokukodwa ukuze bathole isamba sezinto.	
1.16 **Izibalo Zekhanda**	**Ulwazi Lwezibalo: Uhla olufinyelela ku-20** • Hlela iqoqo lezinombolo olunikiwe. • Qhathanisa izinombolo kusukela ku-20 yisho ukuthi iyiphi encane noma enkulu ngokukodwa noma ngokubili. • Yazi ukuthi iyiphi encane noma enkulu ngoku-1. • Yazi ukuthi iyiphi encane noma enkulu ngoku-2. • Yazi ukuthi iyiphi encane noma enkulu ngoku-10.	**Ulwazi Lwezibalo: Uhla olufinyelela kwi -15** • Hlela iqoqo lezinombolo olunikiwe. • Qhathanisa izinombolo ngokusho ukuthi iyiphi encane noma enkulu ngokukodwa noma ngokubili. • Yazi ukuthi iyiphi encane noma enkulu ngoku-1. • Yazi ukuthi iyiphi encane noma enkulu ngoku-2.	**Yimuphi umehluko ku-Themu 2?** Ku-Themu, uhla lwezinombolo lukhula kusuka ku-10 kuya ku-15 Isibonelo semibuzo kanye nomsebenzi engahle ibuzwe futhi yenziwe: • Qala ngoku-3 ubale uya phambili ngakunye kuya kwi-10. • Abafundi bama umugqa babuze: ngubani owokuqala, owesibili, owesithathu noma wokugcina? • Ikuphi okuncane oku-14 noma ku-8? • Ikuphi okuningi oku-8 noma oku-4? • Yini okuncane ngoku-2 ukunokuyi-13? • Yini okuningi nkoku-2 ukunokuyi-8? • Nginike inombolo ephakathi koku-1 noku-3. • Nginike inombolo ephakathi kwe-10 ne-13. Ingabe kunenamba eyodwa? • Hlela lezi zinombolo zamakhadi ngokuyikho usuka kwezincane uya kwezinkulu.	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO Okudingekayo ekupheleni konyaka	UKUQONDA OKUFUNDWAYO NAMAKHONO Okubhekwayo ku-Themu 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
1.16 **Izibalo Zekhanda**	**Ukukhumbula ngokushesha** • Izinombolo ezakha inombolo kufika kwi-10 • Khumbula izindlela zokuhlanganisa nokususa kuya e -10 **Amasu okubala** Sebenzisa amasu okuhlanganisa nokususa ngokugculisayo: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma uhlehle • Umugqa wezinombolo • Ukuphinda kabili nokuhlukanisa kabili inombolo • Ukwakha nokuhlakaza inombolo	**Ukukhumbula ngokushesha** • Izinombolo ezakha inombolo kufika kwezi-5 • Khumbula izindlela okuyizo zokuhlanganisa nokususa kuya ku-5 **Amasu okubala** Sebenzisa amaqhinga ngekhono lokusebenzisa ukubala kokuhlanganisa nokususa • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma uhlehle • Umugqa wezinombolo • Ukuphinda kabili nokuhlukanisa kabili inombolo • Ukuphinda kabili nokuhlukanisa kabili inombolo • Ukwakha nokuhlakaza inombolo	**Ukukhumbula ngokushesha** Bonisa izinombolo zokuhlanganisa ezenza oku-5 (zibhale phansi noma usebenzisa ubungakho benani lezinombolo noma amakhadi okusebenza okwakha izinombolo) • 1 • 2 • 3 • 4 Bonisa izinombolo ngakwesokunxele uma....kususiwe kusuka ku-5 (zibhala phansi noma usebenzisa ubungakho benani lezinombolo noma amakhadi okusebenza okwakha ubungako bezinombolo) • 1 • 2 • 3 • 4 1 + 2 = 3 yini oku- 2 + 1? Ingabe impendulo iyafana? 3 + 1 = 4 yini oku- 1 + 3? Ingabe impendulo iyafana? **Amasu okubala** Sebenzisa amasu okuhlanganisa nokususa ngokugculisayo: Hlanganisa okulandelayo ngokufaka izinombolo ezinkulu kuqala bese uqhubeka nokubala: 1 + 2 2 + 3 1 + 4 Okuphindwe 1 Yini okubili 2s? Yini okuyinxenye we-4? Sebenzisa umugqa wezinombolo Ugxuma kangakhi ukususka koku-3 kuya koku-5? Ugxuma kangakhi usuhlehla usuku koku-5 uya koku-2?	

ITHEMU YESI- 3 YEBANGA LOKU-1 2. AMAPHETHINI, UBUDLELWANE NE-ALJIBHRA				
IZIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO** **OKUDINGEKAYO EKUPHELENI KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO** **OKUBHEKWAYO KU-THEMU 3**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)**
2.1 **AMAPHETHINI OKUSEjiyometri**	**Ukukopisha, ukuqhuba bese uchaza** Ukukopisha, ukuqhubeka nokuchaza ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo • Amaphethini alula enziwe ngokudweba imidwebo eyenziwe ngemigqa, ngezimo noma ngezinto eziphathekayo **Akha amaphethini akho** Akha amaphethini akho asejiyometri Create own geometric patterns • Izinto eziphathekayo with physical objects • Ngokudweba olayini, izimo noma izinto eziphathekayo **Amaphethini asizungezile** Khomba, uchaze ngamagama uphinde ukope amaphethini asejiyometri • Kwimvelo • Empilweni yesimanje yansuku zonke • Emasikweni ethu	**Ukukopisha, ukuqhuba bese uchaza** Ukukopisha, ukuqhubeka nokuchaza ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo • Amaphethini alula enziwe ngokudweba imidwebo eyenziwe ngemigqa, ngezimo noma ngezinto eziphathekayo **Akha amaphethini lakho** Akha amaphethini akho asejiyometri • Izinto eziphathekayo • Ngokudweba olayini, izimo noma izinto eziphathekayo	eBangni 1 abafundi bangagxila kumaphethini lapho izinto ziphindwe ngendlela eqondile.	Isifundo esisodwa

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
2.2 **AMAPHETHINI EZINOMBOLO**	**Ukukopisha, ukuqhuba bese uchaza** Ukukopisha, ukuqhubeka nokuchaza ngamagama alula ngokulandelana okungenani ufike ku-100. **Akha amaphethini lakho** Akha amaphethini akho ezinimbolo	**Ukukopisha, ukuqhuba bese uchaza** Ukukopisha, ukuqhubeka nokuchaza ngamagama alula ngokulandelana okungenani ufike ku-80. Ukulandelana akuveze ukubala uya phambili uphinde uhlehle: • Ngakunye usuka kunoma iyiphi inombolo phakathi kuka 1 no 80 Ukubala uya phambili kulokhu: • Ngamashumi kusuka kunoma yikuphi ukuphindana kwe-10 okuphakathi,kuka 0 kuya ku 80 • Ngakuhlanu kusukela kunoma yikuphi ukuphindana kwe-5 okuphakathi kuka 0 kuya ku80 • Ngokubili kusukela kunoma yikuphi ukuphindana kwe-2 okuphakathi kuka 0 kuya ku80	Ukulandelana kwezinombolo kungahlanganiswa nokubala. Njengoba abafundi bebala amakhono ayashintsha aphinde akhekhe njengezinhlobo zezinombolo ezilandelanayo abafundi basebenza ngolwazi lokwakha. Ukulandelana kwezinombolo kufanele kokhombise ukubala uya phambili nokubala uhlehla kanye: Ukulandelana akuveze ukubala uya phambili uphinde uhlehle: • Ngakunye usuka kunoma iyiphi inombolo phakathi kuka 1 no 80 • Ngamashumi kusuka kunoma yikuphi ukuphindana kwe-10 okuphakathi,kuka 0 kuya ku 80 • Ngakuhlanu kusukela kunoma yikuphi ukuphindana kwe-5 okuphakathi kuka 0 kuya ku80 • Ngokubili kusukela kunoma yikuphi ukuphindana kwe-2 okuphakathi kuka 0 kuya ku80 Uma abafundi bebala bephimisa bangabonisa ukulandelana kwezinombolo ezibhalwe phansi ngezindlela ezahlukene. Bangakhombisa izinombolo ezibalwayo. **Isibonelo 1: Sebenzisa ishadi lezinombolo** 1 **2** 3 **4** 5 **6** 7 **8** 9 **10** 11 **12** 13 **14** 15 **16** 17 **18** 19 **20** 21 **22** 23 **24** 25 **26** 27 **28** 29 **30** 31 **32** 33 **34** 35 **36** 37 **38** 39 **40** **Isibonelo 2: Sebenzisa umugqa wezinombolo ukuchaza iphethini** Bala ngama- 10 uqale kuma-50 kuya kuma- 80	Izifiundo ezintathu

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni ezingamahora ama- 2 ihora amaminithi angama-24)
2.2 **AMAPHETHINI EZINOMBOLO**		**Akha amaphethini lakho** Akha amaphethini akho ezinimbolo	Abafundi bafunda izinombolo ukufika ku-80, kodwa ukubhala kuphela izinombolo kusuka kokukodwa kuya kwi-15. Amaphethini ezinombolo anezinombolo ezingaphezulu kwe-15 zingenziwa ngoku: • Ukufaka imibala ehlukene kumaphethini, kugridi yezinombolo, • Ukukokelezela izinombolo kumaphethini, kugridi yezinombolo noma emgqeni wezinombolo; • Ukusebenzisa amakhadi ezinombolo ukuqoqa isinombolo ngokulandelana; • Ukusebenzisa amakhadi ezinombolo abonisa izinombolo ezingekho embhalweni onikiwe olandelanayo; noma • Ukusebenzisa uhla lwezimpawu zezinombolo ezilethelwe ukudweba umugqa kwizinombolo ezikhethiwe ezilungile endaweni okumele zibe kuyona. • Abafundi banganikezwa ukubhalwa okulandelanayo kwezinombolo okunezinombolo ezingekho. Kumele banikezwe uhla lwezinombolo ezingasetshenziswa, kulokho abangakhetha impendulo okuyiyona. Abafundi bazogcwalisa izinombolo ezingekho ezinikiwe zilandelana ngaphezulu, bagcwalise izinombolo ezingekho ngendlela yokubhala izinombolo zilandelana, isibonelo: 2, 12, 22, ___, 42, 52, 62.	

ITHEMU YESI-3 YEBANGA LOKU - 1 3. INDAWO NESIMO (IJIYOMETRI)				
IZIHLOKO	**UKUQONDA NAMAKHONO ADINGIKAYO EKUPHELENI KONYAKA**	**UKUQONDA NAMAKHONO OKUGXILWA KUWO NGETHEMU 3**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
3.1 **Isikhundla, ukubonisa into nendlela okubonakala ngayo**	**Ulimi oluchaza ukuthi leyonto ikusiphi isikhundla.** Chaza isikhundla sento usiqhathanisa nenye. Isibonelo: ingaphezulu, ingaphambi, ingemumva, ingakwesokunxele, ingakwesokudla, iphansi, iseduze kwalokhu, njll. **Isikhundla sento nokubukeka kwayo.** • Qondanisa ukubukeka kwento eyodwa efanayo ngokubukeka kwayo okwahlukene. **Isikhundla nezinkomba** • Landlela izinkomba ukunyakaza uzungeza ekilasini. Landela imiyalelo ukubeka into ibe nobudlelwane nenye. Isibonelo: Faka ipeni phakathi ebhokisini.		Ulimi oluchaza isikhundla olwakheke eThemini 1 kufanele abafundi balwenze njalo ngesikhathi sokufunda beyiqoqo eliphelele nangesikhathi befunda kugxilwe emaqoqweni kuze kuphele iThemu. Kumele kube nesikhashana sokuzilugisela ukusetshenzisa ulimi. Olunye ulimi oluchaza isikhundla lungafundwa ngesikhathi abafundi befunda ngesimo ezinhlangothintathu. Umsebenzi okhuluma ngesikhundla nangezinkomba uqoqwa ugoqwe ngomsebenzi obhalwayo. Isibonelo: imidwebo, ukufaka imibala, noma ukuqondanisa imidwebo namagama. Abafundi bangenza lomsebenzi ngesikhathi sokusebenza ngamunye	

IZIHLOKO	UKUQONDA NAMAKHONO ADINGIKAYO EKUPHELENI KONYAKA	UKUQONDA NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
3.2 **Isimo esinhlangothintathu**	**Uhla lwezinto** Ukubona ashonizinto ezinhlangothintathu ekilasini nasezithombeni. • Isimo esiyibhola (imbulunga) • Isimo esiyibhokisi (iphrizimu) **Izimpawu zezinto** **Chaza,uhlele bese uqhathanisa izimo ezinhlangothintathu ngokwe:** • ubungako • umbala • izinto eziginqikayo • izinto esishibilikayo **Imisebenzi okugxile kuyo.** Buka bese wakha isimo esinhlangothintathu usebenzisa izinto eziphathekayo njengamabhulokhi, nokuphinde kusebenziseke kabusha, nokunye okuyizinsizakufundisa	**Uhla lwezinto** Ukubona ashonizinto ezinhlangothintathu ekilasini nasezithombeni. • Isimo esiyibhola (imbulunga) • Isimo esyiibhokis (iphrizimu) **Izimpawu zezinto** **Chaza,uhlele bese uqhathanisa izimo ezinhlangothintathu ngokwe:** • ubungako • umbala • izinto eziginqikayo • izinto esishibilikayo	**Ukugxila ezimpawini zezinto ezinhlangothintathu** Abafundi basebenzisa amabhola nezimo ezisabhola, amabhokisi ahlukahlukene nezinye izinto ezinizimo ezingonxande, amaphrizimu namabhuloki. Abafundi bangakha izinto ezishelelayo noma eziginqikayo bese bezibeka endaweni ephakeme ukuze babone bazitholele okushelelayo nokugingqikayo.  Abafundi bangathola ukuthi bangakwazi ukwakha umbhoshongo besebenzisa amabhola odwa noma amabhokisi odwa.. Ngesikhathi sokusebenza ngabodwa abafundi bangaqhubeka nokwenza lomsebenzi: • ukuhlela izinto ngobungako; • ukuhlela izinto ngokwemibala; • ukwakha ngezinto ezikhona eklasini • ukwakha amabhola noma amabhokisi ngobumba noma ngenhlama. **Ukubona nokusho amabhola (okuyimbulunga)namabhokisi(amaphrizimu)** Abafundi bayaqhubeka bakhombe bese bechaza okusejiyometri nokutholakala ezimpilweni zansukuzonke, basho ukuthi kunesimo esisabhola noma esisabhokisi. Isibonelo: isitini sime njengebhokisi, noma iwolintshi limi njengebhola. **Umsebenzi obhalwayo** Umsebenzi owenziwayo wezinto ezinezimo ezinhlangothintathu ungasongwa uphethwe ngomsebenzi obhalwayo.	Izifundo ezimbili

IZIHLOKO	UKUQONDA NAMAKHONO ADINGIKAYO EKUPHELENI KONYAKA	UKUQONDA NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
3.3 **Izimo ezinhlangothimbili**	**Uhla lwezimo** Ukubona bese esho izimo ezinhlangothimbili • indilinga • unxantathu • izkwele **Izimpawu zezimo** Chaza, uhlele bese uqhathanisa izimo ezinhlangothimbili ngokwe • bungakho • umbala • isimo • amacala aqondile • amacala ayindinga	Azikho izimo ezinxambili ezinconywe ukuba kugxilwe kuzo kuthemu 3, kodwa abafundi bangaqhubeka ngokwakha izithombe ezinhlangothimbili noma benze umsebenzi obhalwayo ngesikhathi sokusebenza ngabodwa. Lokhu bangakwenza ngesikhathi sezibalo nangesamakhono empilo.		
3.4 **Okufana nse nxazombili**	**Okufana nse nxazombili** • ukubona okufana nxazombili emzimbeni wakhe. • Ukubona bese edweba umugqa ohlukanisa kabili kufane nse nxazombili izimo ezinhlangothimbili eziyizibalomdwebo nengezibalomdwebe.	**Okufana nse nxazombili** • ukubona okufana nxazombili emzimbeni wakhe. • Ukubona bese edweba umugqa ohlukanisa kabili kufane nse nxazombili izimo ezinhlangothimbili eziyizibalomdwebo nengezibalomdwebe.	Abafundi abathole umugqa ohlukanisa izinto eziphathekayo nezithombe kufane nse nxazombili. Umsebenzi obhalwayo akumele ube imidwebo kodwa kufanele ufake umsebenzi wokudweba umugqa ohlukanisa phakathi kufane nse nxazombili emidwebeni eyizibalomdwebo. Isibonelo: unxantathu, imidwebo engesizo izibalo nokudweba umugqa ohlukanisa umzimba kufane nse nxazombili	Isifundo esisodwa

ITHEMU YESI- 3 YEBANGA LOKU- 1 4. ISILINGANISO				
IZIHLOKO	**UKUQONDA NAMAKHONO ADINGIKAYO EKUPHELENI KONYAKA**	**UKUQONDA NAMAKHONO OKUGXILWA KUWO NGETHEMU 3**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
4.1 **ISIKHATHI**	**UKUDLULA KWESIKHATHI** Ukuxoxa ngokudlula kwesikhathi • Ukuhlela kwezigameko ezejwayelekile ezimpilweni zabo ngokulandelana. • Ukuqhathanisa ubude besikhathi kusetshenziswa ulimi oluchazayo • Ukuqhanisa ubude besikhathi usebenzisa ulimi olufanele. Isibonelo:kude ngokuthe xaxa, kufushane ngokuthe xaxa kuyashesha, kuhamba kancane njll • Ukulandelanisa izigameko usebenzisa ulimi olufanele njengokuthi: izolo, namuhla kusasa. **Ukusho isikhathi** • Ukuchaza ukwenzeka kwezinto kusetshenziswa ulimi olufanele. Isibonelo: Ekuseni, ntambama, ebusuku.		Abafundi kumele bafunde ukukhuluma ngalokhu: • Ukulandelana kwezigameko • Ubude besikhathi Abafundi bayaqhubeka nokuhlanganisa izindlela zokukhuluma ngesikhathi nsukuzonke ngesikhathi sokufunda bebonke njengekilasi noma ngesikhathi sokufundiswaa ngamaqembu. Abafundi baxoxa baphendule imibuzo ngokwenzeka kwezinto besebenzisa amagama afana nokuthi ekuseni,ebusuku, emini, njll Abafundi balandelanisa izigameko besebenzisa ulimi olufana nokuthi izolo, namuhla, kusasa, izinsuku zesonto nezinyanga zonyaka. Abafundi baqhanisa ubude besikhathi nobufushane baso nokushesha kwaso Abafundi baxoxa ngokuhlela izigameko zempilo yabo. Balandelanisa bahlele izithombe ezifana • Izinyathelo ozilandelayo uma wenza inkomishi yetiye. • Izithombe ezikhombisa ingane ekhulayo ize ibe umuntu omdala • Impilo nokukhula kwezilwane. Isibonelo iqanda liba inkukhu. • Izehlakalo ezenzeka njalo ngosuku ukususka ekuseni kuze koshona ilanga. Abafundi baqhubeka nokukhombisa izinsuku zabo zokuzalwa kwikhalenda unyaka wonke.	

IZIHLOKO	UKUQONDA NAMAKHONO ADINGIKAYO EKUPHELENI KONYAKA	UKUQONDA NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
4.1 **ISIKHATHI**	• Ukwazi izinsuku zeviki • Ukwazi izinyanga zonyaka. • Ukukhombisa izinsuku zabo zokuzalwa kwikhalenda ngezindlela ezahlukene.			
4.2 **UBUDE**	**Isilinganiso esingahlelekile** • ukuqhathanisa nokuhlela ubude, ukuphakama, noma ububanzi phakathi kwezinto ezimbili nezingaphezulu bese ezibeka ngokulandelana enye emva kwenye. • Ukusebenzisa ulimi olufanele ukuqhathanisa. Isibonelo: kude ngokuthe xaxa, kufishane ngokuthe xaxa, kubanzi ngokuthe xaxa, njll	**Isilinganiso esingahlelekile** • Ukuhlawumbisela, ISILINGANISO, ukuqhathanisa, ukuhlela, nokubhala ubude ukusebenzisa izikali ezingenasilinganiso. Isibonelo: ubude bezandla, amagxatho, ubude bepensela, nezinto zokubala, njll	**Yikuphi okwahlukile eThemini 3?** Konke ukukala eBangeni 1 akunasilinganiso. Ubude abulinganiswa ngesilinganiso esihleliwe nesilinganisiwe. EThemini 1 kunconywa ukuba abafundi bagxile kulokhu: • Ukuqhathanisa ubude beizinto ezibekwe zasondelana • Ukuhlela nokuqhanisa ubude nokuphakama nobubanzi bezinto ezintathu nangaphezulu ngokuzibeka ngambili ezinye eduze kwezinye. • Ukukhulisa ulimi olukhuluma ngomehluko okhona uma kukhulunywa ngobude, ukuphakama ububanzi, njll Ngesikhathi sokusebenza ngokuzimela ngeThemu abafundi bangazilungiselela ngokuphindelela behlanganisa behlela bese beqhathanisa ubude, ukuphakama noma ububanzi bezinto ezintathu nangaphezulu ngokuzibeka ngazimbili ezinye eduze kwezinye zize zilandelane ngokufanele. Umsebenzi wonke kumele ubhalwe, abafundi bebhala abakutholayo nothisha ebhala ukusebenza kwabafundi. EThemini lesi 3 abafundi bangagxila ekulinganiseni okungenasilinganiso belinganisa ubude.	Izifundo ezimbili

IZIHLOKO	UKUQONDA NAMAKHONO ADINGIKAYO EKUPHELENI KONYAKA	UKUQONDA NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
4.2 UBUDE	• Ukuhlawumbisela, Ukulinganisa, ukuqhathanisa, ukuhlela, nokubhala ubude ukusebenzisa izikali ezingenasilinganiso. Isibonelo: ubude bezandla, amagxatho, ubude bepensela, nezinto zokubala, njll		**Ukulinganisa okungahlelekile kobude kusetshenzisa isilinganiso okungenasilinganiso sobude**. Abafundi bangafunda imigomo nemikhuba yokulinganisa besebenzisa ukukala okunganasilinganiso. Ukukala ngesilinganiso esingahlelekile akumele kuthathwe njengokungenasidingo. Ukulinganisa ubude ngesikalo esingahlelekile kufaka ukubala izilinganiso ezilinganayo bese kubalwa izinto ebekulinganiswa ngazo. Isibonelo: ubude bedesiki buyizandla eziyi 8. Abafundi kumele balinganise izinto ezahlukene besebenzisa uhla lwezinto belinganisa ngesilinganiso esingalinganisiwe. Zintathu izindlela zokulinganisa okungahlelekile; • Qoqa ubeke ngomugqa izinto ezizolinganiswa eziwubude obufanayo njengamabhokisi kamantshisi,izivalo zamabhodlela ezinezimo ezifanayo,njll ungasebenzisa lokhu kulinganisa ubude bedesiki. Kusemqoka ukuthi: • Konke okuzosetshenziswa kuwubude obufanayo. Ungeke usho ukuthi incwadi iyizivalo eziyi 12 ngoba nazo azilingani futhi • Azikho izikhala ezishiywa phakathi kwezinto ezilinganisayo, izinto ziqoqwa kungasali sikhala phakathi kwazo • Ukusebenzisa izinto ezifana nse ukukala ngesilinganiso esingahlelekile. Lokhu ungakwenza uma ulinganisa ubude bezinyawo.. • Ukusebenzisa into eyodwa kuphela njengesilinganiso esingahlelekile noma uyiphendulele kolunye uhlangothi ukuyenza umkhawulo ngaphambi kokuyishishilizisa. Abafundi abafundiswe ukuchaza ukukala abakusebenzisile okungalinganisiwe. Isibonelo: ikilasi liyizinyawo ezingama 38 Uma abafundi sebelinganise izikhashana bangajwayezwa ukuhlawumbisela ubungako bobude bento elinganiswayo. Ukuhlawumbisela ngaphambi kokulinganisa kusemqoka kodwa abafundi bangakwenza emva kokuba sebeke balinganisa ngaleso silinganiso.	Izifundo ezimbili

IZIHLOKO	UKUQONDA NAMAKHONO ADINGIKAYO EKUPHELENI KONYAKA	UKUQONDA NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
4.2 **UBUDE**			Abafundi kumele bafunde ukukwazi ukuqhathanisa ubude, nokuphakama nobubanzi kusetshenziswa izilinganiso ezifanayo. isibonelo: uma umnyango uyizandla ezingama 20 ububanzi kanti idesiki lingamapensela ayisi 8 lokho akusho ukuthi ububanzi bomnyango bukhulu kunobedesiki. Abafundi badinga ukulinganisa ngohla lwezilinganiso ukuze:- • Bazi ukuthi uma isilinganiso sisincane isilinganiso siba siningi kanti uma sisikhulu isilinganiso isilinganiso siba sincane. Isibonelo: ububanzi beklasi amanyathelo angama20 kodwa libe anagxatho angama 48 ukuphapama futhi • Bazi uksebenzisa izilinganiso ezifanele zokulinganisa. Isibonelo: ukusebezisa izivalo zamabhodlela okulinganisa ububanzi beklasi kuchitha isikhathi. **Ukubhala isilinganiso** Ukulinganisa kuyikhono elenziwayo kodwa abafundi bangakubhala njalo phansi abakuthola uma kade belinganisa. **Ukulinganisa ubude esimweni sokuxazulula izinkinga nezokubala** Ngesikhathi sokusebenza ngezinombolo, ubudlelwane nokusebenza kwazo abafundi bangaxazulula izinkinga zokulinganisa okungahlelekile kobude. Isibonelo: ubude bebhokisi lensipho lingaba izinti eziyi 8 zikamentshisi. Ibhokisi lamakhekhe liyizinti eziyi 13 zikamentshiso. Lide kangakanani ibhokisilamakhekhe kwelensipho? Makunakekelwe uhla lwezinombolo ezisetshenziswa eThemu ngokwazi izinhlobo zezinkinga ezihambisana neThemu.	

IZIHLOKO	UKUQONDA NAMAKHONO ADINGIKAYO EKUPHELENI KONYAKA	UKUQONDA NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
4.3 ISISINDO	**ISILINGANISO okungahlelekile** • ukuhlawumbisele, isilinganiso, ukuqhathanisa, • ukuhlela, nokubhala isisindo besebenzisa izikali ezingalinganisiwe nokulinganisa macala onke. Isibonelo: amabhulokisi, nezitini, njll • Ukusebenzisa ulimi olufanele ukuqhathanisa. Isibonelo: kuyasinda, kulula, kulula kakhulu, kusinda kakhulu.		Konke ukulinganisa eBangeni 1 akuhlelekile. Akukho ukulinganiswa kwesisindo okuhlelekile nokusebenzisa ukulinganisa okungahlelekile. EThemini 1 kunconywa ukuba abafundi bagxile • Ekuqhathaniseni isisindo sezinto • Ukuhlela bese uqhathanisa izisindo zezinto ezintathu nezingaphezulu ngokuzibeka ngambili uzilinganisa zilandelane ngokwesisindo. • Ukukhulisa ulimi olukhuluma ngomahluko wesisindo. Ngesikhathi sokusebenza ngokuzimela ngeThemu abafundi bangazilungiselela ngokuphindelela behlanganisa behlela bese beqhathanisa ubude, ukuphakama noma ububanzi bezinto ezintathu nangaphezulu ngokuzibeka ngazimbili ezinye eduze kwezinye zize zilandelane ngokufanele. Wonke umsebenzi uyabhalwa abafundi nothisha	

IZIHLOKO	UKUQONDA NAMAKHONO ADINGIKAYO EKUPHELENI KONYAKA	UKUQONDA NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
4.4 **UMTHAMO / OKUMUMETHWE**	**Isilinganiso esingahlelekile** • ukuqhathanisa nokuhlela ukungako boketshezi olumumethwe izitsha ezimbili ezibekwe zasondelana. Abafundi bangathola ubungako boketshezi ngokuluthela esitsheni sesithathu. • Ukuqhathanisa nokuhlela ubungako boketshezi olungamumathwa izitsha ezimbili. • Ukusebenzisa ulimi olufanele ukuqhathanisa. Isibonelo:kugcwele kunokunye, akunalutho. • Ukuhlawumbisela bese ukala uhlele umthamo wezitsha usebenzisa ukukala okungalinganisiwe. Isibonelo:amathisipuni nezinkomishi.		Konke ukulinganisa eBangeni 1 akuhlelekile. Akukho ukulinganisa isisindo okuhlelekile nokusebenzisa ukulinganisa okulingahlelekile. Ngalesisikhathi sonyaka kugxilwa kokumumethwe nomthamo ngoku • Khulisa ulimi oluqondene nokumumethwe nomthamo • Qhathanisa umthamo wezitsha ezimbili ezifanayo; bese • Qhathinisa umthamo wezitsha ezinobubanzi obungafani ngokuthela esitsheni sesithathu Bheka amanothi eThemu 2. Abafundi bangahlanganisa ulwazi abaluzuzile ngesikhathi sokufunda ngokuzimela .	

ITHEMU YESI-3 YEBANGA LOKU -1 5. UKUQOKELELWA KOLWAZI				
IZIHLOKO	**UKUQONDA ABAKUFUNDAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO OKUGXILWA KUWO NGETHEMU -I**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni eziyi-hora nemizuzu engama-24)
Ukusebenza ngeqoqo lezinto				
5.1 **Qoqa bese uhlela izinto**	**Qoqa bese uhlela izinto** Qoqa bese uhlela izinto eziphathekayo nsukuzonke	Ukuhlela izinto eziqoqiwe akuyona into okugxilwa kuyo ngesigamu sesibili sonyaka kodwa ingenziwa ngesikhathi semisebenzi yokuzimela Izincomo zokugxila kukho ngeThemu 3 indlela ukuqokelelwa kolwazi okusebenza ngayo kusuka ekuqaleni kuze kuyofika ekugcineni. Bheka isibonelo olunikiwe ngezansi.		
5.2 **Okumele izinto ezihleliwe eziqoqiwe**	**Okumele izinto ezihleliwe eziqoqiwe** Dweba isithombe sezinto eziqoqiwe.			
5.3 **Ukuxoxa bese kubikwa ngezinto ezihleliwe eziqoqiwe**	**Ukuxoxa bese kubikwa ngezinto ezihleliwe eziqoqiwe** • Nika isizathu sokuqoqa izinto nokuzihlela ngendlela ezihlelwe ngayo. • Phendula imibuzo - Ukuthi ukuhlela kwenziwe kanjani. (inqubo) - Izinto ezihleliwe zibukeka Kanjani. (umkhiqizo) • Chaza iqoqo nemidwebo. • Nikeza incazelo yokuhlela kezinto			
Ukusebenza ngolwazi				

IZIHLOKO	UKUQONDA ABAKUFUNDAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUGXILWA KUWO NGETHEMU -I	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi-hora nemizuzu engama-24)
5.4 **Qoqa bese uhlela ulwazi**	**Qoqa bese uhlela ulwazi** Qoqa ulwazi ngekilasi noma ngesikole ukuphendula imibuzo ebuzwa uthisha	**Qoqa bese uhlela ulwazi** Qoqa ulwazi ngekilasi noma ngesikole ukuphendula imibuzo ebuzwa uthisha **Okumele ulwazi** Okumele ulwazi kwi grafu yezithombe **Hlaziya bese uhumusha ulwazi** • ukuphendula imibuzo ngegrafu yezithombe.	**Izincomo zokugxila kukho: ukusebenza ngolwazioluqokelelwe oluphelele kusuka ekuqaleni kuze kube sekugcineni.** Ulwazi oluqokelelwe oluphelele abafundi baqoqa ulwazi ukuphendula imibuzo. EmaBangeni Aphansi nasemazingeni Aphakathi imibuzo itholakala kuthisha noma encwadini okufundwa ngayo. • Abafundi bahlela babhale okumele ulwazi ngendlela elula ukuluhlaziya. Abafundi beBanga -1 banendlela yokubhala okumele ulwazi ngokbhala igrafu yezithombe • Abafundi bahlaziya ulwazi lwegrafu yezithombe ngokuphendula imibuzo ebuzwa uthisha. Igrafu yezithombe yekilasi eBangeni -1 kuyasiza ukuqala ulwazi oluqokelelwe ngokwenza igrafu yesithombe sekilasi. Ukusebenza ndawonye kubenza basizane besebenza bonke bengasali ndawo. Ukwenza igrafu yezithombe kwenza uthisha agxile ezingxenyeni ezimqoka esifundweni solwazi oloqokelelwe. Uthisha akafundise abafundi ukubona izimpawu zegrafu yezithombe • Ukulebhelwa kwegrafu(izihloko zegrafu) • Ukulebhela izingxenye zegrafu • Izithombe kumele zibe nencazelo yezikumele • Kumele kube nezikhala phakathi phakathi kwezithombe • Izithombe kufanele zibe nobukhulu obulinganayo • Ukufundwa kwegrafu Ukusebenza ngolwazi oluqokelelwe oluphelele kusuka ekuqaleni kuya ekugcineni kuthatha izifundo eziningana.	Izifundo ezi-3

IZIHLOKO	UKUQONDA ABAKUFUNDAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUGXILWA KUWO NGETHEMU -I	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi-hora nemizuzu engama-24)
5.4 **Qoqa bese uhlela ulwazi**			**Ukuqoqa, uhlele bese ubhala okumele ulwazi oluphelele** Othisha emeBangeni aphansi kumele basebenzise izihloko ezahlukahlukene eziqokwa ukufundisa kuqoqwa ulwazi nokuluhlaziya ezingeni nasezingeni ngalinye. izibonelo ezifanele zifaka ukuhlela ishadi lesimo sezulu lenyanga edlule bese kwenziwa igrafu yezithombe. Noma ukwakha igrafu yezithombe yezinsuku zokuzalwa zabafundi **Ukuhlaziya ulwazi** Abafundi baphendula imibuzo efana nalena: Iluphi uhlobo lwezulu olube luningi kulenyanga ? Iluphi uhlobo lwezulu olube luncane kulenyanga? Zibe zingaki ezibe nelanga elibalele? Ukusebenza ngolwazi oluqokelelwe oluphelele kusuka ekuqaleni kuya ekugcineni kuthatha izifundo eziningana.	

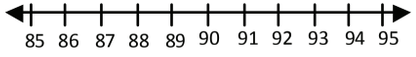
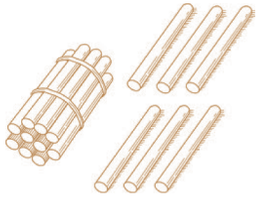
ITHEMU YESI-4 YEBANGA LOKU -1 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANE BAZO				
IZIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO** **OKUDINGEKAYO EKUPHELENI KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO** **OKUBHEKWAYO KU-THEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
UKUTHUTHUKISA ULWAZI LWEZINOMBOLO: Ukubala usebenzisa izinombolo eziphelele				
1.1 **Bala izinto eziphathekayo**	Bala izinto eziphathekayo kuya ezingama-50 Qagela inani lezinto esingaziibala ngokuyikho.	Bala izinto eziphathekayo kuya ezingama-50 Qagela inani lezinto esingaziibala ngokuyikho.	**Yimuphi umehluko ku-Themu 2?** Ku-themu 4, abafundi bangeza uhla lokubala. Kusekhona ukubheka ngokuqonda indlela emiselwe yokusenza kwenombolo nhloko. Ngalethemu abafundi kumele bafunde indlela yokubeka izinto eziphathekayo ngokulandelana uma bebala ukuze uma bebheka ukubala, amalungiselelo abasiza ekubaleni kakhulu kalula. Isibonelo, ukubala kubekwe emgqeni. Ngalethemu abafundi baqhubeka nokwengeza amakhono okubala nokufunda. • Ukubala konke • Ukuqhubeka nokubala • Indlela emiselwe yokusenza kwenombolo nhloko kanye • Ukusebnza ngethekisthi ebhaliwe. Abafundi badinga ukuxhumana phakathi kokubala okujwayelekile nezinombolo ezisho isikhundla. Lokhu kwenzeka uma bethola ukuthi ukugcina ukubala kufike ku-50 wezinto kusho ukuthi babale izinto ezingama-50.. Futhi bayazi ukuthi indlela umuntu abala ngayo izinto ayithikamezi ukubala. **ukubala ngamaqoqo** Ukuze kusizwe abafundi ukubala ngezikhawu ezimbili, ezinhlanu nezi - 10, kudingeka bahlanganise izinto ngokubili, ngokuhlanu kanye nokuyi- 10 ukuze kubalwe iqoqo lezinto. Amakhadi ezinombolo kufanele abonise kuko konke okuqoqiwe ukubonisa izinombolo zezinto ezibaliwe. Ukubala ngamaqembu kuzolungiseslela abafundi ekwazini ukuphindaphinda. Ekupheleni kwe-Themu abafundi kumele bakwazi ukubona ukuqoqwa ngokuhlukanisa izinombolo. Isibonelo: “Ngiyazi ukuthi kuyi-10 ngoba ngibeka oku-4 kwelinye icala ngibeke okuyi-6 kwelinye icala” **Izinsiza:** Qaphela ukubheka izinhlobo zezinsiza ezisetshenziswayo. • Izinsiza ezihlelekile, ubuhlalo bokubala obusentanjeni bungasetshenziswa. • I-abhakhasi ingasetshenziswa ukufunda ukubala ngeqembu leshumi. • Abafundi bangenza inyanda yoku-2, inyanda yoku-5 neyeshumi bese bezibala zonke.	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.2 **Bala uyaphambili ubuye uhlehle**	**Bala uyaphambili ubuye uhlehle kanje** • Ngakunye kusukela kunoma iyiphi inombolo phakathi kuka -0 kuya ku-100. **Bala uya phambili kanje:** • Ngama-10 kusuka kunoma iyiphi inombolo phakathi kuka -0 kuya kuma -100. • Ngaku -5 kusuka kunoma iyiphi inombolo kuya kma -100 • Ngaku -2 kusuka kunoma iyiphi inombolo kuya kuma -100	**Bala uyaphambili ubuye uhlehle kanje** • Ngakunye kusukela kunoma iyiphi inombolo phakathi kuka -0 kuya ku-100. **Bala uya phambili kanje:** • Ngama-10 kusuka kunoma iyiphi inombolo phakathi kuka -0 kuya ku-100. • Ngaku -5 kusuka kunoma iyiphi inombolo ku-100 • Ngaku -2 kusuka kunoma iyiphi inombolo kuya ku-100	**Yimuphi umehluko ku-Themu 1?** Ku-Themu 4, abafundi babala izikhawu ze-10, 5 ne-2 ukufika ku-100. Ukubala ngezikhawu kuba ikhono elibalulekile abafundi abazolisebenzisa ku-Banga 2 ne 3 kubasize uma benza izibalo. Ekupheleni kwe-Themu abafundi bazokwazi lokhu: Ukubala uphimisa uphinde uphendule imibuzo enjengale: • Qala kuma- 52, bala uqhubeke ngokubala ngakunye ufike kuma-70 • Qala kuma- 88, bala uqhubeke ngokubala uhlehle ngakunye ufike kuma-70 • Qala kuma- 38, uphinde uqhubeke ngokubala ngakubili ufike kuma-50 • Qala kuma-45, uphinde uqhubeke ngokuhlanu ufike ku-100 • Qala ku-10, uphinde uqhubeke ngokuyishumi ufike ku-100 Abafundi kumele bakwazi ukusebenzisa amakhono okubala emsebenzini obhalwayo. Isibonelo: • Kopisha wenabe izinombolo ezilula ngokulandelana okungenani kuya ku-100. Bheka ingxenye kumaphethini ezinombolo	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.3 **Uphawu negama lenombolo**	**Ukufunda nokwazi izinombolo** • Ukufunda nokwazi uphawu lwezinombolo kusuka ku-0 kuya kwi-100. • Bhala izimpawu zezinombolo kusuka ku-0 kuya ku-20 • Ukufunda nokwazi amagama ezinombolo kusuka ku-1 kuya kwi-10 • Bhala amagama ezinombolo kusuka ku-1 kuya kwi-10	**Ukufunda nokwazi izinombolo** • Ukufunda nokwazi uphawu lwezinombolo kusuka ku-0 kuya kwi-100. • Bhala izimpawu zezinombolo kusuka ku-0 kuya ku-20 • Ukufunda nokwazi amagama ezinombolo kusuka ku-1 kuya kwi-10 • Bhala amagama ezinombolo kusuka ku-1 kuya kwi-10	**Yimuphi umehluko ku-Themu 3?** Ku-Themu 4, uhla lwezinombolo luthuthuka kuya ku-100. Ukubhala izimpawu zezinombolo nezinombolo magama ziyahlanganiswa ngaleli-Themu. Alukho olwazi olusha olufundwayo. Kubalulekile ukuthi ukuqagela inombolo eyakhe iqoqo nokubala kuncike kwenzeni ngokucophelela nokusebenzisa izinombolo zamagama. Abafundi kumele basebenzise babhale izinombolo zamagama zezinhlobo ezahlukene zesimo. Ekugcineni kwe-Themu kufanele bakwazi ukwenza lemisebenzi elandelayo: *Uqondanisa izimpawu, izithombe noma izinto zezithombe* Leli khadi lith ku--6 Leli kadi lithini? 6 11 Qondanisa amagama nezinto Kanye ✂ Kubili ✱ ✱ ✱ ✱ Kuthathu ✸✸ Kune ✶✶✶✶✶✶ Kuhlanu ✖✖✖✖✖✖✖✖✖✖ Isithupha ✺✺✺ Isikhombisa ✷✷✷✷✷✷✷ Isishiyagalombili ※ ※ ※ ※ ※ Shumi ✦✦✦✦✦✦✦✦✦	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.4 **Chaza, qhathanisa bese uhlela izinombolo**	**Hlela uqhathanise izinto zifike ku-20** • Qhathanisa amaqoqo ezinto ngobuningi / okumbalwa; ngokuningi kuno; okuncane kuno; kuningi ngango, okuhlukene. • Qoqa uhllele izinto ngokuningi kuya kokuncane nokuncane kuya kokuningi. • Uhla kufinyelela ezintweni ezi-20 **Hlela uqhathanise izinamba** • **Hlela izinamba** - Kusukela kokuncane kuya kokukhulu; kusuka kokukhulu kuya kokuncane - engaphambi li, engmuva, ephakathi nendawo - Usebenzisa umugqa wezinombolo ka 0 kuya ku -20 • Qhathanisa izinombolo ngokuthi inkulu kuna / incane kuna ining kuna / kumbalwa kuna; kulingana na		Ngokuhlela nokuqhathanisa izinto nezinombolo abafundi bafunda ukuthi: • Izinombolo ezisho isikhundla zisetshenziswa ukuchaza izinamba eziseqoqweni. **Yimuphi umehluko ku-Themu 3?** Abafundi baqala ukufundiswa ukubala okujwayelekile. Ekupheleni kwe-Themu nasekupheleni konyaka abafundi kumele bakwazi ukusebenzisa ulimi oluhlelekile noluqhathanisayo ezindleleni ezithile: Okokuqala, okwesibili, okwesithathu, okwesine, okwesihlanu, okuyisithupha..... Bangakhi..... Okuningi njenge, izinombolo ezifanayo njenge..... Okulingana no, kukhulu kuno, kuncane kuno, kuyingcosana kono, kuningi kuno, Hlela, okokuqala, okokugcina, ngaphambi, emva, eduze, phakathi Izinombolo Okokuqala, okwesibili, okwesithathu, okwesine, okwesihlanu, okuyisithupha..... Bangakhi..... Okuningi njenge, izinombolo ezifanayo njenge..... Okulingana no, kukhulu kuno, kuncane kuno, kuyingcosana kono, kuningi kuno, Hlela, okokuqala, okokugcina, ngaphambi, emva, eduze, phakathi ◯◯◯◯◯◯◯◯◯◯◯◯◯◯◯◯◯◯◯◯ Faka umbala ophuzi endilingeni yesihlanu. Faka umbala obomvu endilingeni yokuqala. Faka umbala oluhlaza okwesibhakabhaka endilingeni yesishiyagalombili	

<table>
<tr><th>IZIHLOKO</th><th>UKUQONDA OKUFUNDWAYO NAMAKHONO
OKUDINGEKAYO EKUPHELENI KONYAKA</th><th>UKUQONDA OKUFUNDWAYO NAMAKHONO
OKUBHEKWAYO KU-THEMU 1</th><th>AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI</th></tr>
<tr>
<td>1.4
Chaza, qhathanisa bese uhlela izinombolo</td>
<td>• Okukodwa nokukodwa okuhambisanayo
• Uhla lwezinombolo kufinyelela kwezi-20
Sebenzisa izinombolo ezijwayelekile ukubonisa ukuhleleka, indawo noma isikhundla
• Hlela izinto ngokulandelana kusukela kweyokuqala kuya kweyeshumi.
Hlela izinombolo ngokulandelana ukusuka kweyokuqala ukuya kweyeshumi</td>
<td></td>
<td>Abafundi abaphendule imibuzo enjenga le
Ubani owokuqala emugqeni?
Ubani owesibili emgqeni?
UMthunzi unamakhilayoni ama-5. UCally unamakhilayoni ayisi-8
Ubani onamakhilayoni ambalwa?
Nginike inombolo ephakathi kwe-15 no- 17?
Bhala phansi izinombolo eziphakathi kwe-4 neziyi- 10
1, 2, 3, 4, _, _, _, _, _, 10
Gcwalisa izinombolo ezingekho
<table>
<tr><th>Ngaphambili</th><th>Izinombolo</th><th>Ngemuva</th></tr>
<tr><td></td><td>17</td><td></td></tr>
<tr><td></td><td>12</td><td></td></tr>
<tr><td></td><td>14</td><td></td></tr>
<tr><td></td><td>9</td><td></td></tr>
<tr><td></td><td>6</td><td></td></tr>
</table>
Bhala lezi zinombolo zihleleke kusuka kwezinkulu uya kwezincane
Bhala lezi zinombolo usuka kwezincane uye kwezinkulu
Kopisha ugcwalise usebenzise amagama “ngaphansi” noma “ngaphezulu”:
• 35 anga _____ kunama- 38
• 79 anga _____kunama 65
Ukwazi ukuthi inombolo eza ngaphambili ingaphansi ngokukodwa kanti inomba eza ngemuva ingaphezulu ngenamba eyodwa.
Iyiphi inamba efika ngaphambi kwe-17?
Iyiphi inamba eza ngemuva kwama-82?</td>
<td></td>
</tr>
</table>

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.4 **Chaza, qhathanisa bese uhlela izinombolo**			Gcwalisa izinombolo ezingekho emgqeni wezinombolo  Beka isinombolo zamakhadi ezilandelayo ngohlelo: yiziphi izinombolo eziphakathi kwama-25 no 30 Nginikeze inamba enkulu ngokukodwa engaphezulu kuka-76 Nginikeze inamba enkulu ngokubili engaphezulu kuka-76 Iyiphi inombolo engaphansi ngokukodwa kuno-45? Iyiphi inombolo engaphansi ngokubili kuno-39?	
1.5 **Ubungako benani lenombolo**	**Ukubona ubungako benani lezinombolo ezimbili zedigithi -kuya ku-20.** • Hlukanisa izinombolo ezingamadigithi ahamba ngamabili ngeshumi nangokukodwa kuya ku-20 Isi: i-12 yi-10 kanye no-2		**Yimuphi umehluko ku-Themu 3?** Kuleli Themu abafundi baqhubeka nokwakha nokukhulisa ukuqonda ubungakho benani lenombolo Ku-Themu 4, abafundi basebenza ngohla lwezinombolo ezinkulu baqhubeke: • Bala wenze amaqoqo ezinto ezilishumi nokukodwa okuseceleni; • Bhala oku-18 = 1 okulishumi noku- 8 nokukodwa okuseceleni; • Bese ubhala oku- 14 = 10 no 4. Abafundi kumele baqhubeke nokusebenza bethinta izinsizakufunda eziphathekayo ngokwamaqoqoqo ezinto ukwakha ngamashumi kokukodwa ukuze bakhe ukuqonda ukuthi iqembu leshumi nokukodwa okuseceleni  Besebenzisa iabhakhasi (abucus)abafundi kufane bakwazi ukukhomba: • Ishumi elilodwa • Ishumi elilodwa nemivo emihlanu • Ishumi elilodwa nemivo eyisithupha	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.5 **Ubungako benani lenombolo**			Lindela abafundi ukubala ngemivo ukwenza amaqoqo okuyishumi.kwabaningi kuphela kwendlela yokusho inombolo noma zingaki izinto ezilapho. **Amakhadi asho ubungako benombolo (Place value cards/Flard cards)** Amakhadi asho ubungako benombolo kufanele asetshenziswe ngaleThemu ukukhombisa indlela okwakhiwe ngayo inombolo.amakhadi asho ubungako benombolo angakhhonjiswa eceleni kwezinyanda noma amaqoqo ezinto.  **Izinsiza** Izinto ezingaqoqwa: • Izinduku zokubala • Izinto zokubala ezingantshuntshwa • Izinti zikamentshisi • Izinti zika-ayisikhilimu • Amabhulokhi ahlanganayo • Amakhadi amele ubungakho benombolo • Imali yokudlala Kuyasiza ukuba namaqoqo okuyishumi ahlezi elungile abafundi abawaqoqile bawagcina ezitsheni.	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.6 **Amaqhinga okuxazulula izinkinga**	Sebenzisa lamaqhinga alandelayo ukuxazulula izinkinga zezibalo bese uchaza isisombululo kanje: • Sebenzisa izinsizakufunda eziphathekayo • Sebenzisa izithombe ukubonisa izibalo eziyingxoxo • Ukwakha nokuhlakaza izinombolo • Phinda kabili ubuye uhlukanise kabili • Umugqa wezinombolo		**Yini okwehlukile eThemu ye-3?** Uma kuphela leThemu abafundi baqala ukuxazulula izinkinga zamagama besebenzisa lamaqhinga: • Dweba noma izinsizakufunda • Ukwakha nokuhlakaza izinombolo • Phindaphinda kabili ubuye uhlukanise kabili • Umugqa wezinombolo Bheka amanothi e-Themu 2	
1.7 **Ukuhlanganisa nokususa**	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo esebenzisa ukuhlanganisa nokususa ezibalweni ezinika umphumela ofika ku-20.		Uma kuphela leThemu abafundi kufanele babe bekwazi ukwenza / ukuxazulula izinkinga ezifana nalezi ezingaphansi. **ushintsho** uNoluthando unama apula ama- 5. uSilo umunika ama apula ayi- 8. Mangaki ama apula anowo manje? Noluthando ubenama apula ayi-13. wanika uSilo ama apula ama- 5. mangaki ama apula asenawo manje? **hlanganisa** Nosisi unomabuli aba-5 aluhlaza satshani kanye nayisi-8 aluhlaza sasibhakabhaka. Bangaki omabuli anabo? Nosisi unomabuli abayi- 13. aba-5 baluhlaza satshani abanye bonke baluhlaza sasibhakabhaka. Bangaki omabuli abaluhlaza sasibhakabhaka uNosisi anabo? **Qhathanisa** uNosisi unobhanana abayi-13. uThemba unobhanana aba- 5. bangaki ngaphezulu obhanana Nosisi anabo kunoThemba?	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.8 **Ukuphindaphinda ukuhlanganisa okuzoholela ekuphindaphindeni**	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo esebenzisa ukuhlanganisa nokususa ezibalweni ezinika umphumela ofika ku -20.		Uma kuphela iThemu abafundi kufanele babe bekwazi ukwenza izinkinga ezifana nalezi ezingaphansi. **Ukuhlanganisa ngokuphindelela** Amabhayisikili ama-4 anamasondo amangaki? **Izinga** UThami uphuza izinkomishi ezi-2 zobisi nsuku zonke. Zingaki izinkomishi zobisi aziphuzayo ngesonto? **amaGridi** uMnu Khumalo utshala imigqa emi-3 yeklabishi. Kunezithombo ezi-5 emugqeni. Zingaki izithombo zeklabishi zizonke?	
1.9 **Ukwenza amaqoqo kanye nokuhlukaniselana okuholela ezibalweni zokuhlukanisa**	Uxazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza isisombululo esebenzisa ukuhlanganisa nokususa ezibalweni ezinika umphumela ofika ku-20 kanye nezimpendulo ezifaka izinsalela		Umakuphela iThemu kufanele abafundi babe bekwazi ukwenza izinkinga ezifana nalezi ezishiwo ngezansi. **Ukwenza amaqoqo** Ukwenza amaqoqo, ulahle izinsalela uStella ama apula angama-3 esikhwameni sisinye. Unama apula ayi-13. Zingaki izikhwama ezinama apula ama-3 agazenza? Ukwenza amaqoqo, ufaka insalela kwimpendulo uBen ufuna ukuthatha amaqanda ayi- 15 awayise kugogo wakhe. Mangaki amabhokisi angathahta amaqanda ayi-6 lilinye awadingayo ukupakisha wonke amaqanda? **Ukwehlukanisa ngokulinganayo** Hlukanisa, ulahle insalela Hlukanisela abangani aba-3 ngokulingana oswidi abayi - 14 bathole inombolo elinganayo yoswidi. Hlukanisa, okuholela emaqhezwini Hlukanisela abangani aba-3 oshokoledi aba-4 bathole ngokulinganayo bonke kungasali lutho. (abafundi abavumelekile ukubiza ingxenye yeqhezu ngokukodwa kokuthathu.bangayichaza ingxenye yeqhezu kalula ngokuth:i “ okuncane”.) Amaqoqo amaqhezu	

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1.11 **imali**	• Ukubona ukhombe imali yaseNingizimu Afrika ewuhlweza 5c, 10c, 20, 50c, R1, R2; R5 yephepha R10 no R20 • Ukuxazulula izinkiknga zemali ezifaka isamba noshintshi kuyofika ku R20 no 20c		Uma kuphela iThemu abafundi kufanele babe bekwazi ukwenza izinkinga ezifana nalezi ezishiwo ngezansi. uJohn uthenge isinkwa ngama- R8. Usikhokhele nge- R10 eliphepha. Yimalini ushintshi awutholile? Umama kaRosy's uthenge isikhafu ngama- R17.usikhokhele ngamarandi ayishumi ama-2 anhamaphephayimalini ushintshi awutholile? Usuku lokuzalwa lukaJudy lwalungesonto. Uthole ama- R5 kudade wabo, ama-R2 umfowabo kanye nayi-R10 kumza wakhe.yimalini iyonke ayitholile?	
UKUBALA				
1.12 **Amaqhinga** **(izindlela noma amasu)**	Sebenzisa lamaqhinga alandelayo ukwenza izibalo: • Imidwebo noma izinsizakufunda eziphathekayo • Ukwakha nokuhlakaza izinombolo • ukuphinda kabili nokuhlukanisa kabili ngokulingana • umugqa wezinombolo		**Yimuphi umehluko eThemu 3?** Abafundi kulindeleke baxazulile izibalo esimweni esikhululekile besebenzisa lamaqhinga alandelayo: • imidwebo noma izinsizakufunda eziphathekayo • imidwebo yabafundi iqala ukubukela ngokohlelo kufanele bakwazi ukuchaza izibalo zabo esekelwe kwimidwebo yabo. • Ukwakha nokuhlakaza izinombolo • ukuphinda kabili nokuhlukanisa kabili ngokulingana • umugqa wezinombolo bheka amanothi eThemu ye-2.	

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1.13 **Ukuhlanganisa nokususa**	• Hlanganisa kufike ema- 20 • Susa kusukela ema-20 • Sebenzisa izimpawu ezifanele (+, –, =, □) • Enza uphindelela amabhondi ezinombolo kuze kufike ku-10		Ukuhlanganisa nokususa phakathi kohla lwezinombolo 0 - 20 abafundi bazo: • Baqala ukuthuthukisa ulwazi lobumeli bungako bamashumi nemivo; • Baqhubeka ukubala ngamaqoqo; kanye noku • Kuqala ukubona ukuthi ukubala uqhubeka ngemivo akulona isu eliphusile. Abafundi bazoqhubeka Learners will continue to: • Bala izinto; • Ukubona, ukufunda nokubhala izinombolo; • Ukuqhqthanisa nokuhlela izinombolo. Ukuze usebenze ngezimpawu zokuhlanganisa nokususa; abafundi kufanele babe nolwazi oluphusile loku: • Bala konkecount all; • Bala uqhubeka kusukela kwinombolo enkulu ngokuthe xaxa; • Ukusebenzisa nokuqonda ulimi lokuhlanganisa nokususa; kanye • Hlela nokuqhathanisa izinombolo. Abafundi bazoqhubeka nokwakha ukuqonda ukuhlanganisa nokususa. Uma kuphela unyaka kufanele abafundi bakwazi uku: • Ukusebenzisa amagama asetshenziswayo ahlobene nokuhlanganisa nokususa kanye nezimpawu ukuchaza nokubhala phansi imisho yezinombolo yokuhlanganisa nokususa; • Sebenzisa izindlela ezingahleliwe ukwenza kanye nokubhala ukuhlanganisa nokususa; • Xazulula izibalo zokuhlanganisa nokususa kanye nokubhala phansi izimpendulo zabo ngemisho yezinombolo; • Ukuqonda ukuthi ukuhlanganisa akufani nokususa kanye nokususa akufani nokuhlanganisa ukusebenzise ukuthola nokubhala phansi izibalo.	

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1.13 **Ukuhlanganisa nokususa**			Ukuqonda ukuhlanganisa nokususa sbafundi kufanele bakwazi uku: • Kukwazi ukusebenzisa iphuzu lokuthi indlela ukuhlanganisa oukuhleleke ngayo akusho lutho; • ukusebenzisa izimpawu +, - kanye =; • ukwazi ukuthi □ kumele inombolo engaziwa; • ukuqonda ukususa njengo “kuthahta konako” kanye “nokuthola umehluko phakathi”; kanye • ukusho nokubhala namaphuzu ezinombolo ezihambisanayo kwiphuzu elinikeziwe lokuhlanganisa ngokuguquka.Isib. 8 + 6 = 14 kusho ukuthi 14 - 6 = 8. Ukubhala phansi imifanekiso yokuhlanganisa nokususa: Ngenkathi abanye abafundi besafuna ukubhala phansi nokubala ngemivo,badinga ukusizwa ukuqala ukubhala nokubala ngamaqoqo. Kufanele bakwazi uku: Dweba izithombe nokusebenzisa izinombolo,ngokugqamile bekhombisa amaqoqo. **Ukuhlakaza izinombolo kube yizingxenye ezincane ukwenza izibalo zibe lula** Abafundi bazohlakaza izinombolo kube izingxenye ezihlukene eziphathekayo. Abafundi bazoqala ngokuhlakaza okuyisikhombisa ngemivo; kepha ngesikhathi amaphuzu enombolo kufinyelela e-10 esesemqondweni abafundi bangasebenza ngezinombolo kwizinga eliphezulu, kufanele bahlakaze okuyisikhombisa kube izingxenye ezihlukene.	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**			Sebenzisa imicibisholo kanye nezinombolo ukukhombisa ukucabanga 11 + 7 = □ 11 + 4 + 3 11 + 4 → 15 + 3 = 18 11 + 7 = □ 11 + 5 + 2 11 + 5 → 16 + 2 = 18 17 - 9 = □ 17 - (7 + 2) 17 - 7 → 10 - 2 = 8 **Amabhondi ezinombolo** Ukuzijwayeza amabondi ezinombolo, kufanele abafundi banikezwe imisebenzi ehlukahlukene ukuba bayenze,lokhu kwenzeka kahle ngesikhathi esikhululekile. Umugqa wezinombolo ungasetshenziswa ukuzijwayeza amabondi kufinyelela e-10. **Basebenzisa ulwazi abaluthole ngaphimbilini njengeqhinga** Lamaqhinga okhonjiswe ngezansi kuvumela abafundi ngokuhlela ukubala kwabo kanye nomqondo wezinombolo.ukuzilungiselela lamaqhinga engezansi azokhuthaza abafundi ukucabanga ngobudlelwane phakathi kwezinombolo kanye nokufundisa abafundi ukusebenzisa ulwazi ukubasiza ukwenza izibolo. **Beka inombolo enkulu kakhulu kuqala ukuze ubale uqhubeka noma uye emuva.** 4 + 12 = □ Hlela kabusha 4 + 12 njenga 12 + 4 ubale uqhubeka kusukela e-12.	

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1.13 **Ukuhlanganisa nokususa**			**Bala uqhubeka kusukela kwinombolo enkulu kakhulu** Abafundi kufanele bakwazi kubala beqhubeka kusukela kwinombolo enkulu kakhulu.lokhu kuyiqhinga elilunge kakhulu kunokubala ngemivo kufiytelela e-14 kanye nokubala ngokuhlanu nangaphezulu. 14 + 5 = □ Abfundi babala kusukela kokuyi 14, kuqhubeke kuye 15, 16, 17, 18, 19. **Khomba izinombolo eziseduze kweziphindeke kabili** 8 + 7 Abafundi bangachaza ukuthi isibalo singabhalwa kanje 8 + 8 -1 (okuphindwe kabili 8 hlanganisa 1) noma 7 + 7 + 1 (okuphindwe kabili 7 hlanganisa 1). Abafundi bangabhala phansi amasu abo besebenzisa imicibisholo: 8 + 8 → 16 + 1 = 17 **Shintsha inombolo iye eshumini bese ususa noma wengeze okukodwa** Lelisu lingafundiswa ngezinombolo ezisohleni oluphansi lungasetshenziswa kwizinombolo eziphezulu. 9 + 6 = □ Abafundi bangasho: “ngikhipha okukodwa kokuyi-6 ngiyokwengeza ngokuyi-9 ukwenza okuyi-10.” Okuyi- 9 + 6 kungabhalwa kanje 10 + 5 = 15 8 + 5 = □ Abafundi bangasho kuboThe learners can say to themselves: “ngikhipha okubili koku-5 ngiyokwengeza kokuyi-8 ukwenza okuyi-10.” Okuyi- 8 + 5kungabhalwa kanje 10 + 3 = 13	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**			**Sebenzisa ulwazi ekuphambaneni kobudlelwane phakathi kokuhlanganisa nokususa** 15 - 9 = ☐ Umfundi uyazi ukuthi isibalo singaphinde sibhalwe njengesibala sokuhlanganisa “ngiyazi ukuthi 9 + ☐ = 15.” Umfundi angasebenzisa ukubala ukwenza izibalo. **Umugqa wezinombolo** Kufanale bakwazi ukusebenzisa umugqa wezinombolo ukweseka ukwenza kwabo izibalo.Isib. 13 + 6	
1.14 **Ukubala ngokuphindaphinda okuholela ekuphindaphindeni**	• hlanganisa inombolo efanayo ngokuphin-daphinda kufinyelela ema- 20 • sebenzisa izimpawu ezifanele (+, =, ☐)		**Yimuphi umehluko eThemu 3?** Ku-Themu 4, abafundi baqhubeka nokwakha ulimi ngokuphindaphinda kokuhlanganisa. Isibonelo: • Amaqoqo ama-2 ezinto ezi-3 • Amaqoqo ama-4 ezinto ezi-2 Abafundi baqhubeka nokubhala imisho yezinombolo okwethulwa okusazithombe. Ukubala okweqayo kumele kuqhubeke ukuze kusize abafundi ekubala izinto eziqoqelwe ezithombeni. Uma izithombe noma izinto eziqoqwe ngokubili abafundi kumele babale ngokubili hhayi ngokukodwa ukuze bathole isamba sezinto. Ukuphela kweThemu abafundi kufanele bakwazi uku: • Ukuqonda ukuhlanganisa ngokuphindaphinda njengokwenza amaqoqo okul-inganayo; • Khombisa ukuhlanganisa ngokuphindaphinda usebenzisa izinto eziphathek-ayo kanye nemidwebo; • Bhala phansi imisho yezinombolo ezihambisanayo nokwenziwayo noma imidwebo; • sebenzisa umugqa wezinombolo ukufinyelela kwimpendulo.	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUDINGEKAYO EKUPHELENI KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO OKUBHEKWAYO KU-THEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.16 **Izibalo zekhanda**	**Number concept: Range 20** • isho inombolo engaphambi kanye nasemuva kwenombolo oyinikeziwe.hlela iqoqo lezinombolo ozinikeziwe ezikhethiwe. • Qhathanisa izinombolo kufinyelela ema-20 usho okuphi okungaphezu nokungaphansi. • Yazi ukuthi iyiphi inombolo engaphezu ngokukodwa noma ngaphansi. • Yazi ukuthi iyiphi inombolo engaphezu noma ngaphansi ngoku-2 nangaphansi **Ukukhumbula ngokushesha:** • Amphuzu okuhlanganisa nokususa kufinyelela -10		**Yimuphi umehluko eThemu 3?** eThemu 4, uhla lwezinombolo luyakhula kusuka e-15 kufinyelela ema- 20. **Isibonelo** semibuzo nemisebenzi engabuzwa noma yenziwe: • Qala ngoku-3 ubale uya phambili ngakunye kuya kwi-10. • Abafundi bama umugqa babuze: ngobani wokuqala, wesibili, wesithathu noma wokugcina? • Ngubane ongaphansi kuka-14 noma ku-8? • Ngubane ongaphezulu ku-8 noma ko-4? • Yini oku-2 okuncane kunaku-13? • Yini oku-2 okwedlula u-8? • Nginike inombolo ephakathi kuka-1 no-3. • Nginike inombolo ephakathi kwe-10 ne-13. Ingabe kunenamba eyodwa? • Hlela lezi zinombolo zamakhadi ngokuyikho usuka kwezincane uya kwezinkulu. **Ukukhumbula ngokushesha** Bonisa izinombolo zokuhlanganisa ezenza okuyi-10 (zibhale phansi noma usebenzisa ubungakho benani lezinombolo noma amakhadi okusebenza okwakha izinombolo) a) 1 b) 2 c) 3 d) 4	

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1.16 **Izibalo zekhanda**	**Amaqhinga okubala** Sebenzisa amasu okuhlanganisa nokususa ngokugculisayo: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma uhlehle • Umugqa wezinombolo • Ukuphinda kabili nokuhlukanisa kabili inombolo • Ukwakha nokuhlakaza inombolo		Bonisa izinombolo ngakwesokunxele uma....kususiwe kusuka kuyi-10 (zibhala phansi noma usebenzisa ubungakho benani lezinombolo noma amakhadi okusebenza okwakha izinombolo) a) 1 b) 2 c) 3 d) 4 e) 6+ 4 = 10 yini oku- 4 + 6? Ingabe impendulo iyafana? f) 5 + 2 = 7 yini oku- 2 + 5? Ingabe impendulo iyafana? **Amasu okubala** Sebenzisa amasu okuhlanganisa nokususa ngokugculisayo: Hlanganisa okulandelayo ngokufaka izinombolo ezinkulu kuqala bese uqhubeka nokubala: 1 + 9 2 + 6 1 + 4 Okuphindwe 1 Yini okubili 2s? Yini okuyinxenye we-4? Sebenzisa umugqa wezinombolo Ugxuma kangakhi ukususka koku-3 kuya koku-5? *U*gxuma kangakhi uhlehla usuka koku-5 kuya koku-2?	

ITHEMU YESI-4 YEBANGA LOKU -1 2. AMAPHETHINI, UBUDLELWANE, NE - ALJEBHRA				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO** **Okugxilwa kukho ngeThemu ye - 2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ihora nemizuzu enga - 24 isifundo)
2.1 **Amaphethini okusejiyometri**	**Kopisha, uqhubeke uchaze** Kopisha, uqhubeke uchaze ngamagama • Amaphethini alula enziwe ngezinto ezphathekayo • Amaphethini alula enziwe ngokudweba imigqa, izimo, noma izinto **Akha amphethini akho** Akha amaphethini okusejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto **Amaphethini atholakala lapho siphila khona** Bona, uchaze ngamagama ubuye ukopishe amaphethini okusejiyometri • kwimvelo • kusuka kwimpilo yesimanje • kusuka emasikweni ayigugu	**Amaphethini atholakala lapho siphila khona** Bona, uchaze ngamagama ubuye ukopishe amaphethini okusejiyometri • kwimvelo • kusuka kwimpilo yesimanje • kusuka emasikweni ayigugu **Akha amphethini akho** Akha amaphethini okusejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto	Abafundi bazosebenza ngamaphethini akwimvelo, ngokwempilo ephilwa manje nangokwamasiko kusukela eBangeni loku - 1 kuya kwelsi - 6. Lokhu kusho ukuthi akudingeki uchithe isikhathi esiningi kulesisihloko. Kumele ukhethe imisebenzi namaphethini alungele ibanga ngalinye. EBangeni loku - 1 abafundi bangenza amaphethini abawathathela kwamanye. Ezinye zezibonelo zamaphethini amacembe ezihlahla, amagxolo, insoli yezicathulo, amathayi, njll. Inhlobo eyodwa yephethini izingane ezingabuka kuyo okufana nse nxa zombili (symmetry) isib.amacembe amaningi afana nse nxa zombili. Abafundi bangabuye babuke amaphethini ocingweni (ucingo, ukhuni) Izitini ezisebhilidini kanye nesiyingi esinamathayili; Izingubo nezinto; Amapuleti, izinkomishi, amasoso; Amabhola; Izilwane ezifana nezinkomo, ibhu, umvemvane, idumbe, indlulamithi, izinyoni, izintethe, izimbali, izinto ezenziwe ngobumba Kunezindlela ezahlukene zokuchaza amaphethini atholakala endaweni eseduzane. Amaphethinin amaningi atholakala eduze / kalula enziwe ngemigqa, ngezimo noma ngezinto. Izimo noma izinto azidingi ukuxhunyaniswa nezimo zezinto ezisejiyometri ezinhlangothimbili esenziwe eBangeni 1. Abafundi bangabheka bachaze • Ukuthi yikuphi ngokuphindelela, isib. imigqa, noma iyiphi inhlobo yesimo, amachashaza • Olayini abaphindaphindiwe isib. ingabe olayini bayaphambana njengalabo abakwindwang yezitsha, ngabe amachasha angosayizi abalinganayo, ngabe imibala iyefana, ingabe babheke endaweni eyodwa, njll.	Isifundo 1

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
2.2 **Amaphethini ezinombolo**	**Kopisha, qhubezela, chaza** Kopisha, qhubezela uchaze ukuhlelka kwezinombolo ezilula kufinyelela okungenani e - 100. **Akha amaphethini akho** Qamba amaphethini akho ezinombolo.	**Kopisha, qhubezela, chaza** Kopisha, qhubezela uchaze ukuhlelka kwezinombolo ezilula kufinyelela okungenani e - 100. Ukulandelana kwezinto kufanele zikhombise: • Ukubala uye phambili nasemuva ngoku - 1 kusukela kunoma iyiphi inombolo phakathi koku 1 kuya e - 100 • Ukubala uye phambili ngama-: - Shumi kusukela kunoma yiziphi izinombolo ez-iphinda ngama - 10s phakathi kwe - 0 kuze kufike e - 100 - Ngoku - 5s kusukela ku - 5 kuya e - 100 - Ngoku - 2s phakathi kwe - 0 ne - 100 **Akha awakho amaphethini akho** Akha izinombolo zamaphethini akho.	Ukulandelana kwezinombolo kungahlanganiswa nokubala. Njengoba ikhono labafundi lokubala liya ngokuthuthuka nangokushintsha, izinhlobo zokuhlelwa kwezinombolo abafundi abasenza ngazo zingathuthuka. Ukulandelana kwezinto kufanele zikhombise: • Ukubala uye phambili nasemuva ngoku - 1 kusukela kunoma iyiphi inombolo phakathi koku 1 kuya e - 100 • Ukubala uye phambili ngama-: - Shumi kusukela kunoma yiziphi izinombolo eziphinda ngama - 10s phakathi kwe - 0 kuze kufike e - 100 - Ngoku - 5s kusukela ku - 5 kuya e - 100 - Ngoku - 2s phakathi kwe - 0 ne - 100 Abafundi bangakhomba izinombolo ezisemgqeni wezinombolo, kwigridi yezinombolo, noma ngokulandelana kwezinombolo okubhalwe phansi. Abafundi bangagcwalisa izinombolo ezimgekho kuhlelo lwezinombolo, emgqeni wezinombolo noma kwigridi yezinombolo ukuzilungiselela ukubala. Abafundi babhala kuze kufike ema - 20. Bheka amanothi eThemu yes - 3 ukutze ubone ukuthi abafundi bangasebenza kanjani ngohlelo lwezinombolo ukwedlula ema - 20.	Izifundo ezi - 3

ITHEMU YESI-4 YEBANGA LOKU -1 3. INDAWO NESIMO (IJIYOMETRI)				
ULWAZI	**UKUQONDA NAMAKHONO ALINDELEKILE EKUPHELENI KONYAKA**	**UKUQONDA NAMAKHONO OKUQXILWA KUWO NGETHEMU 3**	**AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
3.1 **Isi Isikhundla, inkomba nokubukeka kwento**	**Ulimi oluchaza ukuthi leyonto ikusiphi isikhundla.** Chaza isikhundla sento usiqhathanisa nenye. Isibonelo: ingaphezulu, ingaphambi, ingemumva, ingakwesokunxele, ingakwesokudla, iphansi, iseduze kwalokhu, njll. **Isikhundla nezinkomba** • Landela izinkomba ukunyakaza uzungeza ekilasini. • Landela imiyalelo ukubeka into ibe nobudlelwane nenye. Isibonelo: Faka ipeni phakathiebhokisini. **Isikhundla sento nokubukeka kwayo.** Qondanisa ukubukeka kwento eyodwa efanayo ngokubukeka kwayo okwahlukene	**Ulimi oluchaza ukuthi leyonto ikusiphi isikhundla.** Chaza isikhundla sento usiqhathanisa nenye. Isibonelo: ingaphezulu, ingaphambi, ingemumva, ingakwesokunxele, ingakwesokudla, iphansi, iseduze kwalokhu, njll. **Isikhundla nezinkomba** • Landela izinkomba ukunyakaza uzungeza ekilasini. • Landela imiyalelo ukubeka into ibe nobudlelwane nenye. Isibonelo: Faka ipeni phakathiebhokisini. **Isikhundla sento nokubukeka kwayo.** Qondanisa ukubukeka kwento eyodwa efanayo ngokubukeka kwayo okwahlukene	**Isikhundla nezinkomba** Bheka amanothi aku Themu 1 Ulimi olusha olusetshenziselwa isikhundla kumele luthulwe kusebenzisiswa imisebenzi enezinto eziphathekayo ezizokwenza abafundi banyakazise imizimba yabo. Lokhu kungenziwa ngesikhathi befunda beliklasi lonke bephelele noma befunda besemaqoqweni. Izinkombandlela zifundwa ngokufundisa abafundi isifundo esenza banyakaze noma basebenzisa izinto eziphathekayo ngokuyalela kukathisha. Kungafundwa lokhu abafundi bafunda bephelele noma ngesikhathi sokufunda ngamaqembu. **Isikhundla sento nokubukeka kwayo.** Abafundi abasemazingeni ayisisekelo kumele bakwazi ukuthi izinto zibukeka ngezindlela ezingafani uma ukwesinye isikhundla. Abafundi bangacabanga ukuthi izinto zibukeka ngokufana noma uzibuka ungakuliphi icala. Isibonelo imoto ingabukeka incane uma ukude. Abafundi noma besebenzisa izincwadi kumele bakwazi ukubona isithombe engaphambili sinesithombe esikhulu kunesingemumva. Uma sekufundwa ngamaqoqo abafundi bengenza belinganisa ngokubeka izandla phambi kwaboe ukusitha ukubo na into enkulu ekude. EBangeni -I abafundi kumele banikwe umsebenzi wokubuka izinto zisesikhundleni esihlukile. (Isibonelo: Ukubuka ungaphezulu, ukubuka useceleni,ukubuka ungaphambili) ezintweni abazibona nsukuzonke. Lokhu kungaholela ekutheni abafundi bakwazi ukuhumusha iimidwebo eyizibalomdwebo zenziwa ngezindlela ezahlukahlukene.	Isifundo esisodwa

ULWAZI	UKUQONDA NAMAKHONO ALINDELEKILE EKUPHELENI KONYAKA	UKUQONDA NAMAKHONO OKUQXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
3.2 **Izinto ezinhlang-othintathu 3-D**	**Uhla lwezinto** Ukubona bese esho izinto ezinhlangothintathu ekilasini nasezithombeni. • Izimo esiyibhola (izimbulunga) • Izimo zisamabhokisi (iphrizimu) **Izimpawu zezinto** Chaza, uhlele bese uqhathanisa izinto ezinhlangothintathu ngoko: • Bungako • Mbala • Izinto eziginqikayo • Izinto esishelelayo **Imisebenzi okugxilwa kuyo** Buka bese wakha izinto ezinhlangothintathu usebenzisa izinto eziphathekayo njengamabhuloki okwakha nokusebenziswa kabusha nezinto ezisekhithini yokwakha.	**Uhla lwezinto** Ukubona bese esho izinto ezinhlangothintathu ekilasini nasezithombeni. • Izimo esiyibhola (izimbulunga) • Izimo zisamabhokisi (iphrizimu) **Izimpawu zezinto** Chaza, uhlele bese uqhathanisa izinto ezinhlangothintathu ngoko: • Bungako • Mbala • Izinto eziginqikayo • Izinto esishelelayo	Ukusebenza ngezinto ezinhlangothintathu (3-D) ukuhlanganisa kunenziwa ngomsebenzi obhalwayo.	Isifundo esi-1

ULWAZI	UKUQONDA NAMAKHONO ALINDELEKILE EKUPHELENI KONYAKA	UKUQONDA NAMAKHONO OKUQXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa elilodwa kuya kumaminithi anga 24)
3.3 **Izinto ezinesimo esinhlangothimbili**	**Uhla lwezimo** Ukubona usho izimo ezinhlangothimbili • Okuzindilinga • unxantathu • izikwele **Izimpawu zezimo** Chaza, uhlele bese uqhathanisa izimo ezinhlangothimbili ngoko: • bungako • mbala • amacala aqondile • amacala ayindilinga	**Uhla lwezimo** Ukubona usho izimo ezinhlangothimbili • Okuzindilinga • unxantathu • izikwele **Izimpawu zezimo** Chaza, uhlele bese uqhathanisa izimo ezinhlangothimbili ngoko: • bungako • mbala • amacala aqondile • amacala ayindilinga	Bheka amanothi akuThemu 2 Abafundi basebenza ngendilinga nangezikwele zobungako obungafani onxande abanezimo ezingafani. Bawahlela ngokwamacala aqondile nayindilinga. Abafundi bahlela bese bebeka ngamaqoqo izimo ngokuthi ziwunxande,isikwele noma indilinga. Ukusebenza ukuhlanganisa kungenziwa ngomsebenzi obhalwayo.	Izifundo ezi-3
3.4 **Okufana nse nhlangothi zombili**	**Okufana nse nhlangathi zombili** • Ukubona umugqa ohlukanisa umzimba phakathi nendawo izinhlangothi zombili zifane nse. • Ukubona bese udweba umugqa ohlukanisa kufane nse nhlangothizombili izimo ezinhlangothimbili ezintweni eziyizibalomdwebo nezingejiyometri.	**Okufana nse nhlangothi** • Ukubona bese udweba umugqa ohlukanisa kufane nse nhlangothizombili izimo ezinhlangothimbili ezintweni eziyizibalomdwebo nezingejiyometri.	Abafundi kufanele bathole umugqa ohlukanisa izinto eziphathekayo nezithombe kulingane kufane nse nhlangothi zombili. Imisebenzi ebhalwayo • Akufanele ibe imiyalelo yokudweba ” ingxenye esele” kodwa • Ayifake izibonelo ezifuna abantwana badwebe umugqa ohlukanisa izinto kulingane nse nhlangothi zombili.umugqa ohlukanisa kabili kufane nse akumele uhlale njalo usuka phezulu uya phansi.	Isifundo esi-1

IBANGA 1 ITHEMU YE - 4 4. ISILINGANISO				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO** **Okugxilwa kukho ngeThemu ye - 2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ihora nemizuzu enga - 24 isifundo)
4.1 **Isikhathi**	**Ukwedlula kwesikhathi** Khuluma ngokwedlula kwesikhathi • Hlela izigameko ezivamise ukwenzeka empilweni (yakhe umfundi) • Qhathanisa ubude besikhathi usebenzisa uLimi, isib. okude ngokuthe xaxa, okushesha ngokuthe xaxa, kancane kahulu • Hlela izigameko usebenzisa uLimi njengokuthi: izolo, namuhla, kusasa **Ukusho isikhathi** • Sebenzisa uLimi ukuchaza uma into yenzeka, isib. ekuseni, ntambama, ebusuku • Ukukwazi izinsuku zesonto • Ukukwazi izinyanga zonyaka • Ukukhombisa izinsuku zabo zokuzalwa kwikhalenda	**Ukwedlula kwesikhathi** Khuluma ngokwedlula kwesikhathi • Hlela izigameko ezivamise ukwenzeka empilweni (yakhe umfundi) • Qhathanisa ubude besikhathi usebenzisa uLimi, isib. okude ngokuthe xaxa, okushesha ngokuthe xaxa, kancane kahulu • Hlela izigameko usebenzisa uLimi njengokuthi: izolo, namuhla, kusasa **Ukusho isikhathi** • Sebenzisa uLimi ukuchaza uma into yenzeka, isib. ekuseni, ntambama, ebusuku • Ukukwazi izinsuku zesonto • Ukukwazi izinyanga zonyaka • Ukukhombisa izinsuku zabo zokuzalwa kwikhalenda	Abafundi kumele bakwazi ukukhuluma ngalokhu: • Ukuhleleka kwezigameko • ngesikhathi. Abafundi bayaqhubeka bahlanganise izindlela zokukhuluma ngesikhathi nsukuzonke ngesikhathi sokufunda kwekilasi lonke noma iqoqo okugxilwa kulo Abafundi bakhuluma ngezimpendulo ngokwenzekile, kusetshenziswa uLimi olufana nalolu: ekuseni, ntambama, ebusuku. Abafundi bahlela izigameko besebenzisa uLimi olufana nalolu: izolo, namuhla, kusasa, izinsuku zesonto kanye nezinyanga zonyaka. Abafundi baqhathanisa ubude besikhathi kusetshenziswa uLimi olufana nalolu: okude kunku-, okufishane kune-, okusheshayo, okuhamba kancane Abafundi bahuluma ngokuhlela izigameko bezisusela ezimpilweni zabo. Babuye bahlele izithombe ezifana nalezi: • izindlela zokwenza itiye; • izithombe ezikhombisa ukukhula kwengane ize ndala; • impilo yezilwane - kusukela zizalwa zize zibendala, • izigameko ezejwayelekile nosuku (ukuvuka, ukuba sesikoleni, ukudla isidlo sasebusuku, ukudlala, ukulala). Abafundi bayaqhubeka babhale izinsuku zokuzalwa kwabo kwikhalenda.	Isifundo esi-2

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
4.2 **Ubude**	**Ukukala okungahlelekile** • qhathanisa uhlele ubude, ukuphakama, noma ububanzi bezinto ezimbili nangaphezulu ngokuzibeka eduze kwezinye • Sebenzisa uLimi ukukhuluma ngokuqhathanisa, isib. okude ngokuthe xaxa, okufishane kakhulu, okude kakhulu, okubanzi ngokuthe xaxa • Hlawumbisela, linganisa, qhathanisa, hlela, ubuye ubhale phansi ubude bento usebenzisa isikali esingenasilinganiso, isib. Izandla, izinto zokubala, njll.	Zonke izilinganiso eBangeni 1azihlelekile. Azikho izilinganiso ezihlelekile zobude ezinezikali ezinesilinganiso ezenziwayo. Ngesikhathi sokusebenza ngokuzimela iThemu yonke, abafundi bangenza bahlanagnise isilinganiso sobude, ububanzi, kanye nokuya phezulu okunamaunithi ahlelekile. Wonke umsebenzi kufanele ubhalwe phansi. Bheka amanothi aeThemu yesi - 3.		

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
4.3 **Isisindo**	**Isilinganiso esingahlelekile** • hlawumbisela, linganisa, qhathanisa, hlela ubuye ubhale phansi isisindo usebenzisa isikali esingenasilinganiso nokukala ngokulinganisa • Sebenzisa uLimi ukukhuluma ngokuqhathanisa, isib. kulula, kuyesinda, kulula kakhulu, kusinda kakhulu	**Isilinganiso esingahlelekile** • Hlawumbisela, qhathanisa, hlela ubuye ubhale phansi usebenzisa izikali ezingenasilinganiso nokuzimelela, isib. amabhuloki, izitini njll. • Sebenzisa uLimi ukuhuluma ngokuqhathanisa, isib. kulula, kusinda kakhulu, kulula kakhulu	Konke ukulinganisa eBangeni 1 akuhlelekile. Akukho ukulinganisa okuhlelekile kwesisindo okwenziwa ngesikali esihlelekile. **Yini okwehlukile kuThemu yesi - 4?** ngThemu yoku - 1 kwaphakamiswa ukuthi abafundi kumele kugxilwe kulokhu: • Ukuqhathanisa ngqo isisndo sezinto; • Hlela ubuye uqhathanise izisindo zezinto ezintathu nangaphezulu ngokubeka izinto ngazimbili zizimelele kuze kube zonke izinto zihleleke ngokwezisindo • Ukuthuthukiswa koLimi ukukhuluma ngezisindo ezahlukene. NgeThemu yesi - 4 abafundi bagxila ekwenzeni ukulinganisa okungahlelekile kusetshenziswa isikali esingenasilinganiso. **Ukulinganisa okungahlelekile kwesisindo kusetshenziswa isikali esingenasilinganiso ukukala amayunithi** Abafundi bangafunda yonke imigomo nokwenza kokulinganisa kusetshenziswa isikali esingenasilinganiso smaunithi. Ukulinganisa ngesikali esingenasilinganiso samaunithi akufanele sithathwe njengesingabalulekileukulinganisa ngesikali esinesilinganiso. ukulinganisa isisndo ngesikali esingenasilinganiso kufaka ukubala ukuthi mangaki amaunithi anesisindo esifanayo uma kukalwa amaunithi. Isib. irula linesisindo esifanayo namabhuloki ayisi - 9. Abafundi kufanele balinganise izinto ezihlukene besebenzisa uhla lwezinto ezinamayunithi angahlelkile. Abafundi kufanele bafundiswe izindlela zokuthi bekwazi ukusho uma iyunithi ikhombisa isisindo, isib. incwadi inesisindo esifanayo nomabuli abangama - 34. Uma abafundi selinganisile amayunithi izikhathi eziningana, kufanele bahlawumbisele ukuthi mangaki amayunithi alingana nesisindo sento ethile ekaliwe. Ukuhlawumbisela kubalulekile, kodwa kungenziwa kuphela uma abafundi sebeke benza ukulinganisa ngaleyoyunithi.	2 izifundo

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
4.3 **Isisindo**			Abafundi kufanele bafundiswe ukuze bakwazi ukuqhathanisa isisndo sezinto ezihlukene, abafundi kufanele bafundiswe ukuze bakwazi ukuqhathanisa izinto ezahlukene, kufanele kube iyunithi efanayo. Isib. uma irula linesisindosamabhuloki esingama - 20 nesikelo esinesisindo somabuli abagama 20, angeke ukwazi ukusho ukuthi kuesisindo esifanayo noma qha,noma yikuphi okusinda ukwedlula okunye. **Ukubhalwa phansi kokulinganisa** Nakuba ukulinganisa kuyikhono elenziwayo, abafundi kufanele babhale izilinganiso zabo. **Ukulinganiswa kwesisindo ngesimo esejwayelekile ukuze kubalwe kubuye kuxazululwe izinkinga zezibalo** Ngesikhathi esinikezwe inombolo, ukusebenza kanye nobudlelwane bezinombolo, abafundi bangaxazulula izinkinga ezisebenzisa isimo esejwayelekile sokulinganisa isisind. Isib. Indwango yokwesula ibhodi inesisindo somabuli abayi -11. Ibhokisi lamakhrayoni linesisindo somabuli abayi - 8. Sekukonke kunesisindo somabuli abangaki? Bheka uhla lwezinombolo lweThemu, nohla lwezinhlobo zezinkinga ezilungele iThemu.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
4.4 **Umthamo**	**Isilinganiso esingahlelekile** • Qhathanisa ubuye uhlele inani lomthamo kwizitsha ezimbili ezibekwe eduze kwesinye. Abafundi baqinisekisa ngokuthi babuye bathele esitsheni sesithathu uma kunesidingo • Qhathanisa ubuye uhlele inani lomthamo ongathathwa izitsha ezimbili ezigcwele • Sebenzisa ukukhuluma ngokuqhathanisa, isib. okungaphezu kokunye, okungaphansi kokunye, okugcwele, okungenalutho • Hlawumbisela ubuye ulinganise, qhathanisa ubuye uhlele umthamo wezitsha usebenzisa isikali esingenasilinganiso, isib. izipuni, izinkomishi	**Isilinganiso esingahlelekile** • Hlawumbisela, qhathanisa, hlela, ubuye ubhale phansi umthamo osezitsheni ngokusebenzisa isikali esingenasilinganiso, isib. izipuni, izinkomishi	Konke ukulinganisa eBangeni 1 akuhlelekile. Akukho ukulinganisa okuhlelekile kwesisindo okwenziwa ngesikali esihlelekile. **Yini okwehlukile kuThemu yesi - 4?** ngeThemu yoku - 1 kwaphakamiswa ukuthi abafundi kumele kugxilwe kulokhu: • Ukuthuthukiswa koLimi ukuxoxa umehluko phakathi komthamo; • Ukuqhathaniswa komthamo osezitsheni ezifanayo ezitsheni • Qhathanisa umthamo osezitsheni ezimbili ezibukeka ngokufana, ikakhulukazi lezo ezibanzi neziwumncingo. NgeThemu yesi - 4 abafundi bagxila ekwenzeni ukulinganisa okungahlelekile kusetshenziswa isikali esingenasilinganiso somthamo. **Yini umthamo?** Ibhodlela lingathatha umthamo oyizinkomishi ezine, kodwa kunokwenzeka lingagcwali nswi, lingathatha umthamo wenkomishi eyodwa yamanzi ngesikhathi esithile. Umthamo inani elingathathwa into ethile (noma ubungako bendawo ngaphakathi kwento ethile). Uthamo yinani lendawo elithathwa yilokho okuthelwe entweni. Ngesinye isikhathi anafundi bangalinganisa ukuthi ungakanani umthamo wonketshezi osesitsheni. Lokhu kulinganisa umthamo wokusaketshezi okusesitsheni. Kokunye abafundi bazobe belinganisa ukuthi isitsha singathatha umthamo ongakanani. **Ukulinganisa okungahlelekile kobude kusetshenziswa isikali esingenasilinganiso** Abafundi bangafunda imigomo babuye benze ngokuphindaphinda ukulinganisa kusetshenziswa isikali esingenasilinganiso ngamayunithi. ukulinganisa amayunithi ngesikali esingenasilinganiso akufanele kunakwe uma kulinganiswa ngesikali esinesilinganiso ngokwamayunithi. Abafundi kufanele banikezwe ithuba lokulinganisa umthamo besbenzisa uhla lwezinto ngamayunithi angahlelekile, isib. Izinkomishi, izipuni, izivalo zamabhodlela, amathini, amabhodlela, njll.	Isifundo esi - 1

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
4.4 **Umthamo**			Ukulinganisa umthamo ngesikali esingenasilinganiso ngamayunithi kufaka ukubala izikhathi ogcwalisa ngazo into kuze kufike kumthamoofunekayo. Abafundi kufanele bafundiswe ngasosonke iskhathi ukusho amayunithi, isib. Kunezipuni ezingama 48 zamanzi ebhodlelni. Uma abafundi sebelinganisile amayunithi izikhathashana, kufanele bahlawumbisele ngaphambi kokulinganisa umthamo weyunithi. Ukuhlawumbisela kubaluleke kakhulu, kodwa kungenzeka kuphela uma abafundi sebeke benza ukilinganisa ngamayunithi. Abafundi kufanele bafundiswe ukuthi ukuze bakwazi ukuqhathanisa umthamo, kufanele kusetshenziswe iyunithi efanayo. Isb. Uma ingilazi ithatha umthamo ongamathesipuni angama 20 amanzi kanye nezinkomishi ezingathatha amathesipuni ayi - 10 amanzi, angeke uthi ingilazi ithatha umthamo omkhulu wamanzi. Abafundi badinga ukulinganisa uhla lwamayunithi angahlelekile ukuze: • Baqala ukuqonda ukuthi uma amayunithi amancane kakhulu udinga isikhathi esithe xaxa ukuwagcwalisa. Isib. Umthamo webhodlela ungaba amathesipuni angama -20. • Qala ukusebenzisa amayunithi afanele kulokho okulinganiswayo isib. Ukulinganiswa kwebhodlela elingamalitha amabili kusetshenziswa ithispuni kuwukuchitha isikhathi. **Ukubhalwa phansi kokulinganisa** Nakuba ISILINGANISO kulikhono, abafundi kufanele babhale phansi lokho abakulinganisile ngasosonke isikhathi. **Ukulinganiswa kwesisindo ngesimo esejwayelekile ukuze kubalwe kubuye kuxazululwe izinkinga** Ngesikhathi esinikezwe iainombolo, ukusebenza kanye nobudlelwane bezinombolo, abafundi bangaxazulula izinkinga ezisebenzisa isimo esejwayelekile sokulinganisa isisind. Isib. Indwango yokwesula ibhodi inesisindo somabuli abayi -11. Ibhokisi lamakhrayoni linesisindo somabuli abayi - 8. Sekukonke kunesisindo somabuli abangaki?	

YEBANGA LOKU- 1 ITHEMU YESI-4 5. UKUQOKELELWA KOLWAZI				
ULWAZI	**UKUQODA NANKHONO ALINDELEKILE EKUPHELENI KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU -4**	**AMANYE AMANOTHI ACHAZAYONNOMA UMHLAHLANDLELA**	**ISIKHATHI** (ezifundweni eziyi awa elilodwa kuya kumaminithi anga- 24
Ukusebenza ngezinto eziqoqiwe				
5.1 **Qoqa bese uhlela izinto**	**Qoqa bese uhlela izinto** Qoqa bese uhlela izinto eziphathakayo zansukuzonke		Ukuhlela izinto eziqoqiwe akuseyiyo into okugxilwa kuyo kulengxenye yesibili yonyaka. Inganikezwa imisebenzi engenziwa ngesikhathi sokusebenza ngokuzimela. **Izincomo okugxilwa kuzo ngeThemu 4 elokufunda kuhlaziywe igrafu lezithombe.**.	
5.2 **Bhala okumele izinto eziqoqiwe zahlelwa**	**Bhala okumele izinto eziqoqiwe** Dweba igrafu yezinto eziqoqiwe.			
5.3 **Xoxa bese ubika ezinto eziqoqiwe**	**Xoxa bese ubika ngezinto eziqoqiwe zahlelwa** • nika izizathu zokuhlela izinto • phendula imibuzo ngalokhu - zihlelwe kanjani izinto - kubukeka kanjani okuqoqiwe kwahlelwa • chaza okuqoqiwe nemidwebo • nika incazelo yokuhlela kokuqoqiwe			

ULWAZI	UKUQODA NANKHONO ALINDELEKILE EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU -4	AMANYE AMANOTHI ACHAZAYONNOMA UMHLAHLANDLELA	ISIKHATHI (ezifundweni eziyi awa elilodwa kuya kumaminithi anga- 24
Ukusebenza ngezinto eziqoqiwe				
5.4 **Qoqa bese uhlela izinto**	**Ukuqoqa bese uhlela ulwazi** • Qoqa ulwazi ngeklasi noma ngesikole ukuphendula imibuzo ebuzwa uthisha.			
5.5 **Bhala okumele ulwazi**	**Bhala okumele ulwazi** Bhala ulwazi kwigrafu yezithombe			
5.6 **Analyse and Interpret data**	**Hlaziya bese uhumusha ulwazi.** Phendula imibuzo ngolwazi olukwigrafu yezithombe.	Hlaziya ulwazi olunikiwe.	Uma abafundi sebenolwazi oluphelele ukusuka ekuqaleni kuya ekugcineni (okunconywe eThemini 3) bangagxila ekuhlaziyeni imifanekiso abayinikiwe. Kuyanconywa ukuthi ngeThemu 4 abafundi bahlaziya (ngokuphendula imibuzo) ngamagrafu ezithombe okungenani amabili.	Izifundo ezi-2

3.5.2 UKUCHAZA OKUQUKETHWE KWEBANGA 2

ITHEMU YOKU-1 YEBANGA LESI-2 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANO BEZINOMBOLO				
ISIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ihora nemizuzu enga - 24 isifundo)
UKUSEBENZISA IZINOMBOLO EZIMWENI EZIJWAYELEKILE: Bala usebenzise izinombolo eziphelele				
1.1 Ukubala izinto	**ukubala izinto eziphathekayo** ukuqagela nokubala okuyikho kuze kufinyelele ema 200 ezinto zansuku zonke. Isu lokwakha amaqoqo liyakhuthazwa.	Ukubala ngokuyikho okungenani ukuya e 100 kwezinto zansukuzonke. Nikeza ukuqagela okulindelekile kwezinto ezingabhekwa ngokuthi zibalwe.	**Bheka amanothi ebanga 1,ithemu 3 no 4** Ithemu 1 eBangeni 2 ukuhlanganiswa komsebenzi owenziwe ngethemu 4yebanga 1. **Ukubala ngamaqoqo** Kulethemu kugxilwe ekubaleni nangamaqoqo. Lekelela abafundi ukubala izinombolo ezinkulu ngezinto, ukugqugquzela ekwenzeni amaqoqo okubala ngakubili, ngakuhlanu, nangamashumi. Amakhadi ezinombolo kufanele abekwe eduze kweqoqo ngalinye akhombise inani lezinto. Ukubala ngamaqoqo kulungiselela abafundi ukubala ngokuphindaphinda. Abafundi kufanele banikezwe amathuba okubala ngamaqoqo e 100 ingenziwa ngezindlela ezahlukene,isibonelo: • 10 amaqoqo ezinto eziyishumi; • 100 wezinto ezehlukene; noma • 2 amaqoqo oku- 50. **Ukubala ukuqhubeka** Abafundi bazodinga uukukhonjiswa amaqoqo ezinto bese beqhubeka nokubala. **Izinsiza kufunda:** Ukubhekisisa kahle izinto eziphathekayo ukukhuthaza abafundi ukubala ngamaqoqo. Izinsiza ezilungile zifaka nalezi: • Izinto eziphathekayo ezihlelekile, njengobuhlalu bokubala obusentanjeni • I - abhakhasi ukujwayeza ukubala ngama qoqo amashumi • Ukwakha izinyanda ngoku 2, izinyanda yoku 5 nokuyishumi besekubalwa konke ngezinti noma umentshisi • Imali yokudlala	

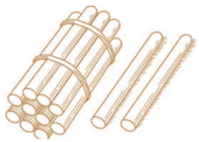
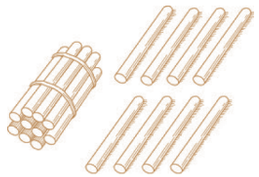
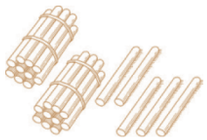
ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.1 **Ukubala izinto**			Uma abafundi beke babona izinto zokubala ezihleliwe noma ezenziwe amaqoqo, bakhuthaze ukuba benze amaqqoqo ngezinto ngesikhathi bebala. Abafundi kufanele benze ukuxhumana ezinombolweni ezejwayelekile nezinombolo ezisho isikhundla uma bebala ‘ ordinal and cardinal’. Loku kucaca kahle uma bema ema-50 ukubala izinro ezingama- 50 ukuthi sebebale izinto ezinga-50. Ngokuphela kwethemu abafundi bazobe sebekwazi uku: • Ukubala izinto abangazithinta noma bazibambe; • Ukubala izinto zokubala ezenziwe amqoqo ezinto ezi 5 nezingama 10; kanye • Ukuhlela kabusha baphinde babale. Abafundi kufanele bakwazi ukuphendula imibuzo: “izinto ezikhona zisalingana nezasekuqaleni?” **Eiminye imisebenzi:** Abafundi kufanele baphendule lemiyalelo nemibuzo: • Kunezinto zokubala eziyi 100. Ukuzibala ngokwenza amaqoqo ezinto ezingamashumi. Ubheke ngokubala ngakunye. Ngaphambi kokuqala, ucabanga ukuthi impendulo izofana? • Ukubala izinto zokubala eziyi 100,ungakhetha ukubala ngamaqoqo ama 20noma25?Ngobani ? • Khetha ukuthi iyiphi indlela yokubala amapensela aqoqiwe. • Kunezinto zokubala ezinga 80. Uma sibala ngakubili noma ngamashumi, ucabanga ukuthi impendulo izofana? • Bala izinto zokubala ezi 46 ngokwenza amaqoqo okubili.	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.2 Ukubala kuyiwe phambili nase muva	Ukubala kuyiwe phambili nasemumva ngo: • nga1, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 200 • nga10, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 200 • nga 5, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 200 • nga2, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 200 • nga3, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 200 • nga1, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 200 • nga 4, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 200	Ukubala kuyiwe phambili nasemumva ngo: • nga1, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 100 • nga10, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 100 • nga 5, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 100 • nga2, kusukela kunoma iyiphi inombolo ephakathi kuka 0 no 100	Ithemu 1 eBangeni 2 kusuke kuhlanganiswa umsebenzi owenziwe kuthemu 4 eBangeni 1. Ukubala weqe izinombolo kuzohlala kubalulekile ukulekelela abafundi uma benza izibalo. Ukusho izinombolo ngokulandelana kuzohlala kuyikhono elidingekayo uma kubalwa. Ukubala kufanele kuqhubeke nokuba yimpilo yansukuzonke yabafundi nemilolozelo, amaculo nezindaba okungabamba iqhaza ekubaleni. EBangeni 1 abafundi kufanele bathuthukise lolwazi lokuqonda ekubaleni: • Ukuqonda ngokulondoloza • Imigomo yezinombolo - ukusho okuqoqiwe • Ukuqagela inombolo eyakhe iqoqo • Ukuqondanisa okukodwa nokukodwa **Ukubala ngokweqa** Ukubala ngokweqa elinye igama lokubala ngamaqoqo. Kusiza ukuthuthukisa ukuqaphela amaphethini. Ukubala ngokweqa kukhuthaza abafundi ukucabanga ngamaqoqo, okwenza kube yimpumelelo. Kuphinde kubasize ukuthuthukisa amakhono ukuqagela. Ukubala ngamaqoqo kwenza banake ubudlelwano phakathi kwezinombolo ezingalandelani. Kwenza isizinda samaphethini ezinombolo nokuphindaphinda. Abafundi kufanele baqhubeke nokulekelelwa ngemifanekisoukubasiza ekubaleni ngokweqa. isibonelo: 2, 4, 6, 8, 10 12, 14, 16, 18, 20 22, 24, 26, 8, 30 32, 34, 36, 38, 40 42, 44, 46, 48, 50 52, 54, 56, 58, 60 62, 64, 66, 68, 70 72, 74, 76, 78, 80 82, 84, 86, 88, 90 92, 94, 96, 98, 100	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.2 Ukubala kuyiwe phambili nase muva			**Imisebenzi eqhubekayo:** Ukubala uyephambili nasemumva kufinyelela ku 100 usebenzise ishadi elikhulu elifinyelela e 100: (5 - 7 imizuzu ngosuku) qala ukubala nekilasi lonke kanyekanyeume enombolweni ethile isib. 24. Abafundi bayashintshana ngokubala beqhubeka kuleyonombolo benza ngamaqoqo / ngababili / ngamunye njengoba kusho uthisha ukubhala, ukubhala inombolo abama kuyo. Ubuze imibuzo efana nokuthi iyiphi iphethini oyibonayo? Igcina kuphi iphethini yokuqala? (isibonelo: iphethini yokubala nga 2s: 2; 4; 6; 8; 10) Ngokuphela kwethemu abafundi kufanele bakwazi uku: Ukubala ngokuphimisa nokuphendula emibuzweni efana nokuthi: • Qala e-52, ubale ngakunye ufinyelele e-72 • Qala e-88, ubale ngakunye uye emumva ufinyelele e-70 • Qala e-38, ubale ngakubili ufinyelele e-50 • Qala e-45, ubale ngakuhlanu ufinyelele e-100 • Qala e-10, ubale ngamashumi ufinyelele e-100 Abafana kufanele basebenzise amakhono abo okubala emsebenzini obhalwayo. Isibonelo,emsebenzini wokuzimela bengaqedela ukulandelana kwezinombolo: Abafundi ababukele baqedele ukulandelana kwezinombolo okwahlukene iaib. • 76; 75; 74; __; 72; __; __; __; 68 (kuyiwa emumva ngakunye) • 27; 28; 29; __; __; 32; __ (ngakunye kuyaphambili) • 8; 10; __; 14, __ (ngakubili noma ngezinombolo ezihamba ngazimbili) • 5; 10, 15; 20; 25; ____ (ngakuhlanu) • 90; __; 70 60; __ (kubalwa kuyiwa emumva ngamashumi) • 10, 20, 30, 40, ___, 60, 70, ___ (ukubala kuyiwa phambili ngamashumi).	

<table>
<tr><th>ISIHLOKO</th><th>UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA</th><th>UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1</th><th>AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI
(ihora nemizuzu enga - 24 isifundo)</th></tr>
<tr>
<td>1.3
Izimpawu zezinombolo nezi-nombolomagama</td>
<td>Ukwazi nokufunda izinombolo
• Ukwazi nokufunda izimpawu zezinombolo 0 - 200
• Ukubhala izimpawu zezinombolo 0-200
• Ukwazi nokufunda izinombolomagama 0-100
• Ukubhala izinombolo-magama 0-100</td>
<td>Ukwazi nokufunda izinombolo
• Ukwazi nokufunda izimpawu zezinombolo 0 - 100
• Ukubhala izimpawu zezinombolo 0- 100
• Ukwazi nokufunda izinombolomagama 0- 25
• Ukubhala izinombolo-magama 0- 25</td>
<td>Ngalethemu abafundi baqhubeka no
• Bhala ufunde iizimpawu zezinombolo kufinyelele e 100; bese
• Bhala ufunde izinombolomagama kufinyelele ema-25.
Ngokuphela kwe themu abafundi bazobe sebekwazi uku:
Bhala uphawu lwenombolo ebekwe ngenombolomagama:
• Ishumi nesikhombisa
• Amashumi amabili nantathu
Qondanisa uphawu nenombolomagama
<table>
<tr><td>66</td><td>Amashumi ayisishiyagalolunye nanye</td></tr>
<tr><td>8</td><td>Amashumi amahlanu nantathu</td></tr>
<tr><td>172</td><td>Amashumi amane</td></tr>
<tr><td>109</td><td>Amashumi amathathu nesishagalombili</td></tr>
<tr><td>91</td><td>Ikhulu namashumi ayisikhombisa nambili</td></tr>
<tr><td>40</td><td>Amashumi ayisithupha nesithupha</td></tr>
<tr><td>53</td><td>Isishiyagalombili</td></tr>
<tr><td>38</td><td>Ikhulu nesishiyagalolunye</td></tr>
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Funda izinombolo ekhadini ngalinye:
83 47
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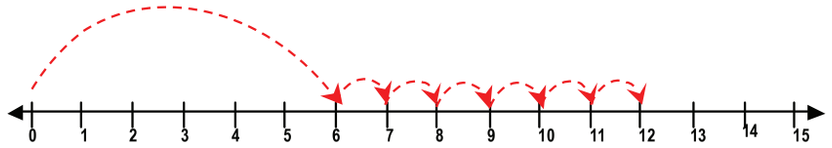
ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.4 **Chaza, uqhathanise, nkuh-lela izinombolo**	**Hlela bese uqhathanisa izinombolo kufinyelele 99** • Hlela izinombolo eziphelele kufinyelele ema -99 kusukela kokuncane kakhulu kuya kokukhulu kakhulu, nokukhulu kakhulu kuya kokuncane kakhulu. • Qhathanisa izinombolo eziphelele kufinyelele ema 99 usebenzisa okuncane okune, kukhulu ukune,kuningi ukune, kungaphansi ukune, kulingana ne. **Sebenzisa izinombolo ukukhombisa ukuhleleka, indawo noma nesikhundla** Beka izinto emugqeni kusukela kokokuqala kuya kokweshumi mona okokuqala kuya kokokugcina isib. Okokuqala, ukwesibili, okwesithathu.... okwamashumi amabili.	**Hlela bese uqhathanisa izinombolo kufinyelele ema 25** • Hlela izinomboloeziphelele kusukela kokuncane kakhulu kuya kokukhulu kakhulu. • Qhathanisa izinombolo eziphelele usebenzisa okuncane okune, kukhulu ukune,kuningi ukune, kungaphansi ukune, kulingana ne.	Uhla lwezinombolo ukuhlela nokuqhathanisa kuhambisana nokubala izinombolo ezisehlwini. Loku kusho ukuthi ukuze ubale kufinyelele ema 99,abafundi ngendlela abaqonda ngayo izinombolo kufanele kuthuthukiswe ukufinyelela esixazululweni. Uma umfundi engehlela aqhathanise ngokuzethemba ngaphezu kokudingekayo kuzobe sekukhuphuka ukuqonda inombolo nokuyisebenzisa. Abafundi kufanele baqhubeke nokusebenzisa ulimi lokuhlela nokuqhathanisa: • Okokuqala, okwesibili, okwesithathu, okwesine, okwesihlanu, okwesithupha…….. • kungaki…… • kuningi njenge, inombolo efanayo ne… • kulingana ne, kuningi ukune, kungaphansi ukune, okumbalwa ukune, okukhulu ukune, kuncane kune, okubanzi ukune…… • Okokuqala, okokugcina, emva, okulandelayo, phakathi ne Ngokuhlela nokuqhathanisa izinto nezinombolo abafundi bafunde lokhu: • Indawo ethile yezinombolo isetshenziswa ukuchaza inombolo eziseqoqweni; • Indawo ethile yezinombolo ezisho indawo nobudlelwano ngendawo ekuyo eqoqweni. Isibonelo: mfaka umbala ophuzi endilingeni yesithathu. **Imisebenzi eqhubekayo** • Izinombolo ezisho isikhundla: chaza umehluko phakathi kwamagama ‘kunye’ no ‘okokuqala’; ‘kubili’ ‘okwesibili’ njll: ungalisebenzisa kanjani igama ‘okuthathu’ nanini ‘okwesithathu’? • Hlukanisa ikilasi amaqoqoq amathathu noma amane alinganayo: umfundi ngamunye uthola ikhadi azobhala kulo igama lakhe. Iqoqo lizobe selibeka amakhadi ngokulandelana kokuhleleka kwezinhlamvu. Uthisha nomfundi bangabuza umbuzo, isib. Ubani owesine eqoqweni lenu?	

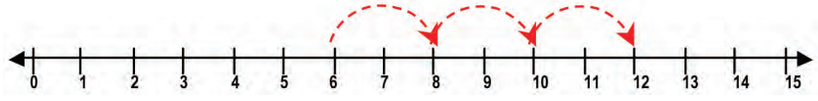
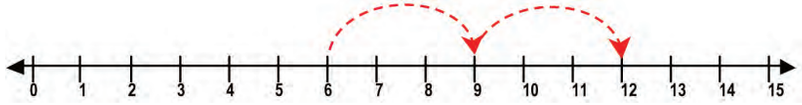
ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.5 **Ubungako benani lenombolo**	**Ukubona ubungako benombolo yezinombolo ezihamba ngambili kufinyelele ku 99** • Ukwazi ukuthi idigithi ngayinye imeleni • Ukuhlakaza izinombolo ezingama digit amabili kufinyelele ema -99 ngokuphinda ngamashumi nokungezinombol ezingazodwana • Ukukhomba usho nesimo senani ledijithi	**Ukubona ubungako benombolo yezinombolo ezihamba ngambili kufinyelele ku 25** • Ukwazi ukuthi idigithi ngayinye imeleni • Ukuhlakaza izinombolo ezingama digit amabili ngokuphinda ngamashumi nokungezinombol ezingazodwana • Ukukhomba usho nesimo senani ledijithi	**Yini ehlukile eBangeni 1?** Ngethemu 1,abafundi basebenza ngohlu lwezinombolo ezinkulu uku: • Ukubala nokuqoqa amaqoqo amashumi nokuhamba ngakodwana; kanye • Bhala i-18 = ishumi eli-1 noku -8 okuhamba ngakodwana 13 = 10 no-3. Ngalethemu abafundi bazoqhubeka nokwenza ngezindlela ezahlukene nokusebenzisa Ishumi njengento ewumkhawulo nokukodwa okuseceleni. ishumi okuyi-10 okukodwa. 'Ishumi elejwayelekile nokukodwa' (24 kusho 2 amaqoqo okuyi- 10 noku- 4 okuyimivo noma 2 amashumi nku- 4 okuyimivo) kudingwa ukusetshenziswa njalo ukugcina ulimi oolusho ukucaza nokuhlanganisa. **Ukusebenza ngezinto eziphathekayo** • Izinti zokubala / izinti zamentshisi Izinti zokubala noma umentshisi ongaqoqelwa ndawonye ukukhombimbisa izinto eziqoqelwe ndawonye inyanda yezinto eziyishuminokungakodwana. **Isibonelo:** **Kukhombisa i- 12**  **Kukhombisa i- 18**  **Kukhombisa ama- 25**  • I - abhakhasi Abafundi kufanele baqedele ngokusebenzisa izinto eziphathekayo ngokwenza amaqoqo lezinto eziyishumi ukuqonda ukuthi iqoqo lenziwa okuyishumi okungakodwana.	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.5 **Ubungako benani lenombolo**			Ukusebenzisa i -abhakhasi, umfundi makakwazi ukukhombisa: - Ishumi elilodwa; - Ishumi elilodwa noku 5 okungakodwana; - Ishumi elilodwa noku 6 okungakodwana; - Ishumi elilodwa noku 7 okungakodwana; - Ishumi elilodwa noku 8 okungakodwana; ne - Ishumi elilodwa noku 9 okungakodwana. • Amabhuloki kaDienes Ngalethemu izinsiza kufundisa zingandiswa ukufundisa ubungako benani lenombolo.Beka ishumi lamabhuloki (part of the Dienes blocks) ingathulwa ingathulwa ukuthuthukisa umcabango weshumi njengento eyodwa kanye loko: - 10 elilodwa lenza ishumi eli 1; - 20 elilodwa lenza amashumi ama 2; kanye - 16 okungakodwana kwenza 1 ishumi 6 okungakodwana. Yize abafundi besadinga ukubala nokwenza amaqoqo amashumi,bengaphinde bakhombise ama-18 ngokubeka ishumi lokuqala lamabhuloki nayisishiyagalombili angawodwana ukukhombisa izinombolo. Abafundi kuzofanele benze amaqoqo ukukhombisa ama-20. • **Okumele okulingene** Ngalethemu kugxilwe ekukhombiseni okumele okulingene inombolo efanayo. Amashumi amababili angachazwa ngokuthi 2 amashumi (kusetshenziswe inyanda noma amaqoqo ezinto) nomaamaqoqo amashumi. Kubalulekile ukukhombisa abafundi ukuthi 20 ungabukeka ngendlela ehlukene. Ngakho khombisa 20 izinto ezihlakazekile, iqoqo leshumi kanye ne10 lokungakodwana namaqoqo ama 2 amashumi. Abafundi mabanikezwe amathuba okuchaza indlela okuhlelwe ngayo, suusho ukuthi yini ehlukile nefanayo.	

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1.5 **Ubungako benani lenombolo**			• **Amakhadi obungako benani** Amakhadi obungako benani angathulwa asetshenziswe ngalethemu ukukhombisa ukuthi zakheke kanjani izinombolo amakhadi obungako benani lezinombolo ahambisane nenyanda noma iqoqo lezinto. • **Ubungako bedijithi** Abafundi kufanele baqale ukusho ukuthi idijithi imelelni. Buza abafundi: • Imeleni inombolo 7 ema- 27? • Imeleni inombolo 2 ema- 29? Abafundi kufanele basebenzise ikhadi lobungako benombolo ukufakazela abakushilo. • **Ukudlulela kokubhaliwe** Ngesikhathi esikhululekile abafundi kufanele benziswe imisebenzi ebhalwayo ukwakha nokuhlanganisa: - Umqondo weqoqo leshumi nokungakodwana; kanye - Ubungako bedujithi. **Isibonelo:** Faka umbala ebuhlalwini obu-12  Faka umbala ebuhlalwini obu-16  Faka inombolo engekho (loku kungenziwa noma kuchazwe ngokusebenzisa izinto eziphathekayo) 18 = 1 ishumi ne ____ okungakodwana 23 = __ amashumi ne 3 okungakodwana	

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1.5 **Ubungako benani lenombolo**			**Izinsiza ezinconywayo** Izinto ezingenziwa amaqoqo: • Izinti zokubala • Izinto zokubalwa ezingatshutshwa • Izinti zamentshisi • Izinti zokumunca • Amabhuloki axhumanayo	
1.6 **Amasu okuxazulula izinkinga**	Sebenzisa amasu alandelayo uma uxazulula uchaze izixazululo enkingeni: • Imidwebo nezinto ezibambekayo isib. Izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo	Sebenzisa amasu alandelayo uma uxazulula uchaze izixazululo enkingeni: • Imidwebo nezinto ezibambekayo isib. Izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo	Abafundi kulindeleke ukuthi baxazulue izinginga zamagama usebenzise lamasu alandelayo: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo **Imidwebo noma izinto eziphathekayo** Abafundi bazoqhubeka nokudweba izithombe nokusebenzisa izinto eziphathekayo ukuxazulula izinkinga. Kubalulekile ukuthi izithombe kubalulekile ukuthi izithombe nemidwebo enezinombolo kanye nemisho yezinombolo. **Ukwakha nokuhlakaza** Leli elinye lamasu abaluleke emabangenini abansi. Lelisu libavumela ukuhlakaza (decompose) nokuhlanganisa ukuze babale kalula. Bazolisebenzisa kakhulu lelisu emabangeni aphakathi. **Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo** Lelisu libucayi lidingalidinga ukuqonda okujulile kwezinombolo. Abafundi bayakwazi ukukhetha isu elikhululekile emaqhingeni abawasebenzisayo: Inking yamagama: ngelinye ilanga emtholampilo abantwana abayi- 17 bathola imjovo womkhuhlane. Ngosuku olulandelayo abantwana abayi- 16 bajovwa. Bangaki abantwana abajovwa uma sebebonke? Inkinga ingaxazululwa ngokusebenzisa ukuphinda kabili. Umfundi angathi ukuphinda kabilli i- 16 uhlangana no1 noma ukuphinda kabili 17 ususa 1.	

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1.6 **Amasu okuxazulula izinkinga**			**Umugqa wezinombolo** Ukusebenzisa umugqa wezinombolo ukuze ukulekelele ukubala okungasiza abafundi ukubhala imicabango yabo baphinde bayilandelele. Kuvumela abafundi ukubhala ngemifanekiso leyo abangayisebenzisa ukuchaza ukuthi inking bayixazulule kanjani inkinga. Abafundi baqale eBangeni lokuqala eBangeni 1. Njengamanje sebeyakwazi ukwakha umugqa wezinombolo ongenazo izinombolo la befaka inombolo yokuqala bese bephokophelela ukuqala bese beqhubekele kwenye. Ngalethemu kuzobakhona ukuqhubekela phambili nokwakhiwa komugqa wezinombolo. **Isibonelo** zokukhombisa ukuthi abafundi bangasebenzisa maphi amaqhinga okubala: UZonke umamathoyizi ayi- 6 antofontofo. UZola unamaningi ngayi- 6 ukunakaZonke.UZola unamathoyizi amangaki antofontofo? Abafundi bazokwenza umugqa wezinombolo ukubasiza bafinyelele empendulweni.  Abafundi bengaphinde bahlakaze okuyi- 6 kube amaqoqoq ama 2. Umugqa wezinombolo uzokhombisa ukugxuma ngaku- 2s kusukela koku 6. **isibonelo:**  Uma abafundi sebenokuzethemba ekubaleni besukela enombolweni zabayinikeziwe.Umugqa wezinombolo izoqala enombolweni eyi- 6. Indlela yomugqa wezinombolo eyenziwa ihambisana nomqondo wokubala beqhubeka. Kubalulekile ukuthi abafundi bawubone umugqa wezinombolo oqala kunoma iyiphi inombolouma bebala noma behlela izinombolo. Usenga hlukanisa inombolo eyi -6 enze amaqoqo ezinto ezihamba ngambili aphinde ahlanganise esukela enombolweni eyi-6	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.6 **Amasu okuxazulula izinkinga**			**Isibonelo:**  6 ungahlukaniswa kabili ngokulinganayo bese kugxunywa ka 2 kubhalwe oku3. **Isibonelo:**  Abafundi kufanele banikezwe ithuba eliningi ukusho ukuthi bangafinyelela kanjani enombolweni besebenzisa umugqa wezinombolo. Kungabuzwa ukuthi:yikuphi ukugxuma okuhlukene esingakwenza ukze sifinyelele e - 15? Ukuze kugxunywe kusondelwe ezinombolweni, abafundi kufanele bazi amabhondi afinyelela e- 15noma bakwazi ukusebenzisa umugqa wezinombolo ukufinyelela empendulweni. Kubalulekile ukuthi abafundi bakhulume ngokuthi kube kukhulu kangakanani ukugxuma. Ukwenza loluhlobo lalomsebenzi kulungiselela abafundi ukuthi bakwazi ukusebenzisa imigqa engenalutho. Uma kusetshenzwa ngomugqa wezinombolo,abanye abafundi bangadinga ukubamba ubuhlalu obusentanjeni ngaphezu noma ngaphansi komugqa wezinombolo ukubasiza ukubala. Vumela abfundi ukuthi abafundi benze iqhinga elibasebenzela kangcono. Bese kuthi uma abafundi besebenzisa iqhinga elingasebenzi kahle balekelelwe ngelingabasebenzela kangcono. Abafundi bayawasebenzisa lamasu akufanele baze babe yizingcweti ukuze bakwazi ekuwasebenziseni. Khumbula ukuthi abafundi banokusebenzisa izindlela ezehlukene ukuxazulula izinkinga okungenzeka kungabi yilezo ezilindelwe uthisha. Isibonelo. Inkinga yokuhlukanisa ingaxazululwa ngokusebenzisa ukususa ngokuphindelela, ukuhlanganisa, noma ukuphindaphinda. Izindlela ezisetshenziswa abafundi zizishintsha ngokuqhubeka konyaka njengoba ukujwayela nokuqonda kwaboizinhlobo zezinkinga kukhula	

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<tr><th>ISIHLOKO</th><th>UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA</th><th>UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1</th><th>AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI
(ihora nemizuzu enga - 24 isifundo)</th></tr>
<tr><td>1.7
Ukuhlanganisa nokususa</td><td>Xazulula izinking a zezibalo zamagama esimweni esijwayelekile, uchaze nendlela oxazulule ngayo inking okufakaka ukuhlanganisa, ukususa, izimpendulo ezifinyelela ema -99.</td><td>Xazulula izinking a zezibalo zamagama esimweni esijwayelekile, uchaze nendlela oxazulule ngayo inking okufakaka ukuhlanganisa, ukususa, izimpendulo ezifinyelela ema -20.

.</td><td>Yini ehlukile eBangeni loku- 1

Ngalethemu abafundi bazokwenza ngokuphindelela izinkinga zamagama nokusebenzela ukuzethemba ekusebenziseni amaqhinga alandelayo uma kuxazululwa izinkinga:
• Imidwebo noma izinto eziphathekayo
• Ukwakha nokuhlakaza
• Ukuphinda kabili nokuhlukanisa kabili ngokulingana nse
• Umugqa wezinombolo

Kulethemu, lekelela abafundi kakhudlwana emizamweni yabo yokubhala nokwethula izibalo zabo. Abafundi badinga ukulekelelwa okuningi emizamweni yabo yokubhala nokwethula izibalo zabo. Abafundi kufanele babhale phansi imisho yezinombolo njengendlela yokuqopha inkinga exazululiwe. Kubalulekile ukubona ukuthi ibaphi abantwana abasebenza kanzima ukubhala imisho yezinombolo ukubona inkinga ethize.

<table>
<tr><th colspan="3">Inhlobo yenkinga 1: Ushintsho</th></tr>
<tr><th></th><th>Ukuxhuma</th><th>Hlukanisa</th></tr>
<tr><td>Imiphumela engaziwa</td><td>UMoeketsi unamaswidi ayi 6. UMahlodi umnika ayi 9 ngaphezulu. UMoeketsi unamaswidi amangaki esewonke?</td><td>Kunamaswidi ayi 15. UMoeketsie wadla 6. Mangaki asalele uMahlodi?</td></tr>
<tr><td>Ushintsho olungaziiwa</td><td>UMoeketsi unamaswidi ayi 6. mangaki amanye awadingayo ukuze abe yi -15?</td><td>UMoeketsi unamaswidi ayi-15. UMahlodi udla amanye. Kusele ayi- 9. Mangaki adliwe uMahlodi?</td></tr>
<tr><td>Ukuqala okungaziwa</td><td>UMoeketsi ubenamaswidi. UMahlodi umunika ayi - 9. Manje usenangama 15. Mangaki uMoeketsi aqale ngawo?</td><td>UMoeketsi udla amanye. Unikeze uMahlodi ayi -6. Manje unamaswidi ayi - 8 asele. Mangaki aqale enaye?</td></tr>
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<tr><th>ISIHLOKO</th><th>UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA</th><th>UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1</th><th>AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI
(ihora nemizuzu enga - 24 isifundo)</th></tr>
<tr><td>1.7
Ukuhlanganisa nokususa</td><td></td><td></td><td>
<table>
<tr><th colspan="3">Inhlobo yenkinga 2: Qhathanisa</th></tr>
<tr><th></th><th>Ukuxhuma</th><th>Hlukanisa</th></tr>
<tr><td>Imiphumela engaziwa</td><td>UMoeketsi unamaswidi ayi - 6.</td><td>UMahlodi unamaswidi ayi -15.</td></tr>
<tr><td>Ushintsho olungaziiwa</td><td>UMahlodi une 9. Mangaki amanye amaswidi uMahlodi anawo ngaphezu kuka Moeketsi?</td><td>UMahlodi unamaswidi ayi - 6. Awakhe angaphansi ngayi- 9 ukunaka Moeketsi. UMahlodi unamaswidi amangaki?</td></tr>
<tr><td>Ukuqala okungaziwa</td><td>UMahlodi unamaswidi ayi- 15. Unamaswidi amaningi ngayi- 9 ukunaka Moeketsi. Unamaswidi amangaki uMoeketsi?</td><td>UMahlodi unamaswidi ayi -16. UMoeketsi unamaswidi ayi- 9 angaphansi kuka Mahlodi. Mangaki amaswidi anawo uMahlodi?</td></tr>
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<table>
<tr><th colspan="3">Unhlobo yenkinga 3: Linganisa</th></tr>
<tr><th></th><th>Ukuxhuma</th><th>Hlukanisa</th></tr>
<tr><td>Imiphumela engaziwa</td><td>UMahlodi unamaswidi ayi -16.
UMoeketsi unayi - 6. Mangaki amaswidiHow many more sweets must Moeketsi get to have as many as Mahlodi?</td><td>UMahlodi unamaswidi ayi- 16. UMoeketsi unamaswidi ayi- 6. Kufanele aphinde adle amangaki amaswidi UMahlodi ukuze alingane naka Moeketsi?</td></tr>
<tr><td>Ushintsho olungaziiwa</td><td>UMoeketsi unamaswidi ayi- 6. Uma ethenga amaswidi ayi- 9 uzoba namaningi njengaka Mahlodi. Unamangaki uMahlodi?</td><td>UMoeketsi unamaswidi ayi -6. Uma uMahlodi edla amaswidi ayi 9 uzoba nenombolo yamaswidi efana neka. Unamangaki amaswidi uMoeketsi?</td></tr>
<tr><td>Ukuqala okungaziwa</td><td>UMahlodi unamaswidi ayi-15. Uma uMoeketsi ethengaamaswidi ayi - 9 ngaphezulu uzoba nenombolo yamaswidi efanayo neka Mahlodi. Mangaki amaswidi uMoeketsi?</td><td>UMahlodi unamaswidi ayi- 16. Uma edla amaswidi ayi- 9 uzoba nenombolo yamaswidi efanayo neka Moeketsi. Unamangaki amaswidi uMoeketsi?</td></tr>
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ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.8 Ukuhlanganisa ngokuphindelela kuholela ekuphindaphindeni	Ukuxazulula izinkinga zezibalo ezisesimweni esejwayelekile kuchazwe nendlela okuxazulwe ngayo inking kusetshenziswa ukuhlanganisa ngokuphindaphinda noma ukuphindaphinda kufinyelela e- 50.	Ukuxazulula izinkinga zezibalo ezisesimweni esejwayelekile kuchazwe nendlela okuxazulwe ngayo inking kusetshenziswa ukuhlanganisa ngokuphindaphinda okuholela ukuphindaphindeni kufinyelela e- 20.	Ukuphindaphinda Ukuqala ukuqonda ukuphindaphinda kulelibanga amaqoqo. Ukwenza amaqoqo kungasiza umfundi ezimweni zokumela ukuphindaphinda. Kunezinhla ezintathu eziyisisekelo zezimo zenkinga ezifaka ukuphindaphinda ngezinombolo eziphelele: • Amaqoqo alinganayo (isib.amatafula amathathu, lilinye linabafundi abane):a mele amaqoqo aphindaphindiwe • Ukuqhathanisa ngokuphindelela (isib. Okuphindwe kathathu njengobuningi babafana namantombana): okumele okuningi kokuvumelanayo • Izinhlelo ezinxande (isib. Imigqa emithathu yabantwana abane): emelwe uhla uluvundlile nolwehlayo Isimo ngasinye kulezi singahlanganiswa nezindlela ezithile zokubuza imibuzo (bheka Izinhlobo Ukuxazululwa Kwezinkinga IBANGA LESI-2 Isahluko 2). Izimo zezinkinga zokuphindaphinda ezifaka izinombolo ezintantunubudlelanweni bezibalo: • Inombolo yezinto kwisethi ngayinye • Inombolo yamasethi • Inombolo ephelele **Izibonelo zezinkinga ezingenziwa kulethemu** Kulindelekile ukuthi uma kuxazululwa izinkinga ezingezansi, abafundi bazosebenzisa izithombe, imidwebo noma izinto eziphathekayo ukulekelela ukubala. Uma abafundi bedweba izithombe ukubasiza ukubala, imidwebo ayiveze isimo samaqoqo.abafundi kumele bakhuthazwe ukubhala imisho yezinombolo kuzona zonke izinkinga zezibalo zamagama. Labo bafundi abanolwazi olukhulu basebenzise izibalo eziyimisho zokuhlanganisa ngokuphindaphinda ukukhombisa isixazululo.	

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1.8 Ukuhlanganisa ngokuphindelela kuholela ekuphindaphindeni			**Izibonelo zezinkinga ezingenziwa**: **Ukuhlanganisa ngokuphindaphinda** • Amabhayisikili ama- 4 anamasondo amangaki? • Abantwana abayi- 7 banamehlo amangaki? Abafundi bangayixazulula inkinga ngalendlela: • Izithombe noma imidwebo mayikhombise amaqoqo.  Abafundi mabakhuthazwe ukubala ngaku - 2 bafinyelele empendulweni. Kufanele bakhuthazwe ukukhombisa ukubala kwabo ngomusho wezinombolo.  **2 + 2 + 2 + 2 + 2 + 2 + 2 = 14** **Isilinganiso** UThami uphuza izinkomishi ezi- 3 zobisi nsukuzonke. Zingaki izinkomishi zobisi aziphuzayo ngesonto? **Amagridi nezinhlelo** UMnu. Khumalo itshala imigqa emi- 3 yezithombo zeklabishi. Kunezithombo ezi- 5 emugqeni. Zingaki izithombo zamaklabishi ezikhona zizonke? • Ingadi yemifino inemigqa emi - 5 yezithombo. Yonke imigqa inenombolo elinganayo yezithombo. Uma kunesamba sezithombo ezi -15, zingaki izithomnbo emugqeni ngamunye? • Ingadi yemifino inezithombo ezi- 18 ezitshalwe emigqeni. Kunezithombo eziyi- 6 emgqeni ngamunye. Mingaki imigqa ekhona?	

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1.9 **Amaqoqo nokucaza kuholela ezibalweni zokuhlukanisa**	Xazulula uchaze izixazululo ezinkingeni ezenzekayo ezifaka ukucazelana ngokulingana namaqoqo kufinyelela ema -99 anezimpendulo ezingaba nezinsalela.	Xazulula uchaze izixazululo ezinkingeni ezenzekayo ezifaka ukucazelana ngokulingana namaqoqo kufinyelela ema -99 anezimpendulo ezingaba nezinsalela.	Njengoba kwenzeka ekuphindaphindeni, ukuqonda ukuhlukanisa okuyisizinda kulelibanga, ukucazelana ngokulingana, nokwakha amaqoqo • Ukwenza amaqoqo (isib. Izingane eziyishuminambili ematafuleni amane, mangaki amatafula) • ukucazelana (isib. Abantwana abayishuminambili ematafuleni amane, bangaki kwelilodwa) abanye abafundi bafika esikoleni bekwazi ukutshengisa kokubili ukwenza amaqoqo nokucaza izinkinga zokuhlukanisa nezinto eziphathekayo. Izimo zezinkinga zokuphindaphinda nokuhlukanisa zifaka izinombolo ezintathu ezilandelayo ebudlelwaneni bezibalo: • inombolo yezinto kwisethi • inombolo yamasethi • isamba senombolo **Izinombolo zezinkinga ezingenziwa kulethemu** **Ukucaza** • nginamapensela ayi- 12 ukucaza ngokulinganayo phakathi kwethu sobathathu; umuntu emunye uzothola amangaki? • Kunezimoto zamathoyizi eziyi -18; ningawahlukanisa kanjani ngokulinganayo phakathi kwenu nobabili? • Kunamapulamisi ayi - 16 nezingane eziyi - 8 ezihlukaniselana ngokulinganayo. Mangaki amapulamusi azotholwa yingane eyodwa? • UNaomi unezimbali ezi - 20. Uwafake emavazini ama- 2. Zingaki izimbali evazini eyodwa? • UTom ubhake amakhekhe ayi -8. unamaSmarties angama- 40. Mangaki amaSmarties angawafaka ekhekheni?	

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1.9 **Amaqoqo nokucaza kuholela ezibalweni zokuhlukanisa**			**Ukwenza amaqoqo** • Zingaki izimoto ongazenza uma unamasondo ayi- 8? Zingaki izithuthuthu? • Kunama apula ayi - 18 ebhokisini. Zingaki izikhwama zama apula ama- 3 angagcwaliswa? • Umbhaki ubhake amabhanisi. Ufaka amabhanisi a-6 kuwona wonke amabhokisi. Mangaki amabhokisi angawagcwalisa? • Kunezingane eziyi-16 lapha namuhla. Mangaki amaqembu ezingane ezine esingawenza? **Ukuhlela** UMongezi uqoqe izinto zokubala ezi- 20 zakha imigqa eyi- 10. Zingaki izinto zokubala emugqeni?	
1.11. **Imali**	• Ukukhumbula nokubona imali ewuhlweza yase South Africa, 5c, 10c, 20c, 50c, R1, R2, R5, nengamaphephaR10, R20, R50 • Xazulula izinkinga zemali ezimbandakanya isamba noshintshi kufinyelele ema- R99 amasenti kufinyelele 90c	• Ukukhumbula nokubona imali ewuhlweza yase South Africa, 5c, 10c, 20c, 50c, R1, R2, R5, nengamaphephaR10, R20, R50 • Xazulula izinkinga zemali ezimbandakanya isamba noshintshi kufinyelele ema- R20 amasenti kufinyelele 50c	**Yini ehlukile ebange lokuqala 1** Ngalethemu abafundi bazilungiselela ukubona imali bayihlakaze ibe amanani amancane. **Izibonelo zezinkinga ezingenziwa kulethemu** • Ungasicaza isi- 50c ngokulinganayo ezinganeni ezine? Chaza kanjani. • Ushingamu ubiza u- 10c umunye. UBusi usebenziseisi-50c. Uthenge oshingami abangaki? • UThenje ukhokhe ama-R5 ukuhamba ngetekisi ukuya esikoleni ekuseni. Wakhokha ngamarandi anga- R20ayiphepha. Uthola ushintshi ongakanani? Imalini azobe esele nayo uma ephindela ekhaya? • Ufizipopo ubiza ama-R2, 50. UPalesa ufuna ukuthenga ufizipopo o- 4. Unama-R8,00. Unemali eyanele? Uma kungenjalo, imalini ayidingayo?	

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1.12 **Amasu (izindlela zokwenza namaqhinga)**	Sebenzisa lamasu alandelayo uma ubala: • Imidwebo noma izinto eziphathekayo isib. Izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili okulingana nse • Umugqa wezinombolo	Sebenzisa lamasu alandelayo uma ubala: • Imidwebo noma izinto eziphathekayo isib. Izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili okulingana nse • Umugqa wezinombolo	**Yini ehlukile eBangeni 1** Abafundi balindeleke ukuxazulu izinkinga ezisesimweni esejwayelekile ezinokubala okukhululekile besebenzisa lamasu alandelayo: Imidwebo noma izinto eziphathekayo isib. Izinto zokubala Ukwakha nokuhlakaza izinombolo Ukuphinda kabili nokuhlukanisa kabili okulingana nse Umugqa wezinombolo • **Imidwebo noma izinto eziphathekayo** Abafundi bayaqhubeka nokudweba izithombe basebenzise nezinto eziphathekayo ukuxazulula izinkinga. Kubalulekile ukuthi isithombe noma imdwebo ibe nezinombolo kanye nemisho yezinombolo. **Ukwakha nokuhlakaza** Lena enye yezindlela ezibaluleke kakhulu emabangeni aphansi (abafundi bangasebenzisa ukuhlakaza ngokuqhubekayonemabangeni aphakathi). Ukusebenzisa lelisu kuvumela abafundi ukuhlukanisa nokuzihlanganisa izinombolo ukulekelela kubelula ukubala. Ngalethemu abafundi bazo: • Ukuhlakaza ibreak up numbers using place value; • Hlakaza izinombolo usebenzisa ukuphinda nga-10; noku • Ukuhlakaza inombolo ukwakha izinombolo ezimili ezifanayo nezihambisanayo isib. Ipheya elenza 20. **Ukuphinda kabili nokuhlukanisa kabili ngokulingana nse** Abafundi bayaqhubeka nokusebenzisa ukuphinda kabili nokuhlukanisa kabili ngokulinganayo njengeqhinga lokuballa. **Umugqa wezinombolo** Bheka amanothi ezinye izibonelo zokwenza umugqa wezinombolo ekuxazululeni izinkinga. • Ukuhlanganisa nokususa Abafundi kufanele bakhe izinombolo owabo umugqa wezinombolo behlakaza izinombolo zibe ngezikhonekayo.	

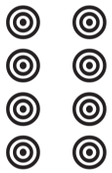
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1.12 **Amasu (izindlela zokwenza namaqhinga)**			**Isibonelo:** 8 + 12 Umugqa wezinombolo kumele uqale kwisi- 8 nabafundi bangakha: • Ukugxuma ka-2 ka- 6 • Ukugxuma ka-4 ka- 3 • Ukugxuma ka-3 ka- 4 • Ukugxuma ka-10 ka- 2 • ukuphindaphinda umugqa wezinombolo kumele uqhubeke nokusebenza ukulekelela ukuhlanganisa ngokuphindaphinda. Ukugxuma okulinganayo kuyabhalwa emugqeni wezinombolo nemisho elekelelayo ingabhalwa. **Isibonelo:** 5 + 5 + 5 + 5 + 5 = 25 Ukugxuma ka-5 oku- 5 kwenza 25 5 amaqoqo ka 5 = 25 5 x 5 = 25 Ukuphindaphinda okunikeziwe, abafundi kufanele bakwazi ukuchaza ukuthi bagxume kanjani ukwenza umugqa wezinombolo. Vumela abafundi ukukhetha amasu abazizwa kangcono ngawo. Kodwa-ke, uma abafundi besebenzisa amasu angasebenzi kahle badinga ukulawulwa ukusebenzisa ukuba basebenzise angasebenza kangcono. Khumbula ukthi abafundi bangaxazulula inking ngendlela engalindelwe uthisha. Isibonelo,inking yesibalo sokuhlukanisa ingaxazululwa ngokususa ngokuphindelela, ukuhlanganisa, noma ukuphindaphinda. Indlela umfundi ayisebenzisayo ingashintsha ngesikhathi unyaka uqhubeka njengoba ukwazi nokujwayela kwabo izinkinga kukhula, kanye nokuqonda kwabo izinombolo kuthuthuka.	

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1.13 **Ukuhlanganisa nokususa**	• hlanganisa kufinyelele e- 99 • susa kusukela e- 99 • ukusebenza kwezimpawu ezifanele (+, -, =, ☐) • ukuzijwayeza amabhondi ezinombolo kufinyelele	• hlanganisa kufinyelele e- 20 • susa kusukela e- 20 • ukusebenza kwezimpawu ezifanele (+, -, =, ☐) ukuzijwayeza amabhondi ezinombolo kufinyelele e- 20	**Yini eyehlukile eBangeni 1?** Kugxilwe kakhulu ekuthuthukiseni amasu namaqhinga okubala kulethemu. Ukuhlakaza izinombolo ukuze ukubala kube iqhinga elibalulekile abafundi abangajwayezwa lona. **Lethemu igxile kwi:** Ukusebenzisa ukuhlakaza nokwakha imisebenzi yezinombolo engasiza ekuthuthukisweni kokwazi ukuhlanganisa nokususa Abafundi benza bephindelela izibalo zokuhlanganisa nezokususa kufinyelele e- 20. Kuphakathi kwalezizilinganiso sezinombolo lapho abafundi bangaqala bathuthukise ukuqonda ubungako benombolo ngamashumi nangemivo. Ukubala ngamaoqo kuzohlala kubalulekile nabafundi bangaqala ukubona ukuthi ukubala ngakunye akulona isu elisebenza kangcono. Kukulesi silinganiso senombolo lapho abafundi okumele abafundi bacabange kanzima ngamasu abazowasebenzisa. Ukukhetha indlela yokubala eyiyonayona kusiza abafundi ukuba baphumelele ekubaleni. Ukuze babale esilinganisweni senombolo esukela e- 0-20 ulwazi lwabafundi lungafaka: • ukubala izinto; • ukubona,ukufunda nokubhala izinombolo; • ukuqhathanisa nokuhlela izinombolo; • ukwakha nokubhidliza izinombolo; • ukwenza ngokuphindelela ukuhlanganisa nokususa kufinyelele e- 20; • ukuphindaphinda nokuhlukanisa kabili ngokulinganayo; noku • ukuzikhumbuza okubalulekile ngezinombolo. **Amasu angenzeka uma kuhlanganiswa noma kususwa** Amasu akhonjiswe ngezansi avumela abafundi ukuba bazinzise ukubala nokuqonda kwabo izinombolo. Ukuzijwayeza amasu angezansi azokhuthaza abafundi ukubheka ubudlelwano phakathi kwezinombolo nokufundisa abafundi ukuthi bangakwazi ukusebenzisa ulwazi ukuze babale.	

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1.13 **Ukuhlanganisa nokususa**			**Beka inombolo enkulu kuqala ukuze kubalwe kuqhubeke noma kuhlehlwe** 4 + 12 = □ Hlela kabusha 4 + 12 njengo 12 + 2 uqhubeke nokubala usukela e- 12. **Ukubona okungaseduze kokuphindwe kabili** 8 + 7 Umfundi engachaza ukuthi isibalo singabhalwa kanje 8 + 8 -1 (phindaphinda i- 8 susa oku- 1) noma 7 + 7 + 1 (phindaphinda i- 7 uhlanganise oku- 1). Abafundi bangabhala amasu besebenzisa imicibisholo 8+ 8 →16, 16− 1→ 15 **Shintsha inombolo iye eshumini bese ususa noma uhlanganise noku-kodwa** Lelisu lingafundiswa nezimombolo ezisezingeni eliphansi lisebenze kuyofinyelela ezinombolweni ezinkulu. 9 + 6 = □ Abafundi bangathi kubo: “ngithatha indlela eyodwa ukusuka ku- 6 ngawengeza ku- 9 ukwakha i-10.” Ngakho-ke 9 + 6 angabhalwa njengo 10 + 5 = 15. 8 + 5 = □ Abafundi bangathi kubo: “ngizothatha izindlela ezimbili ukusukela ku 5 nga-wengeza ku 8 ukwakha i10.” Ngakho-ke 8 + 5 angabhalwa njenge 10 + 3 = 13. **Ukuhlakaza inombolo ibe izingxenye ezincane ukwenza ukubala kube lula** Abafundi bangahlakaza inombolo kube izingxenye ezikhonekayo kubo.	

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1.13 **Ukuhlanganisa nokususa**			Ukubala kuqhubeka ngokuhlakaza inombolo 11 + 7 = ☐ 11 + 4 + 3 11 + 4 15 + 3 = 18 11 + 7 = ☐ 11 + 5 + 2 11 + 5 16 + 2 = 18 17 - 9 = ☐ 17 - (7 + 2) 17 - 7 10 - 2 = 8 12 + 7 = ☐ 10 + 2 + 7 7 + 2 9 + 10 = 19 **Sebenzisa ulwazi lokusebenza ngokuhlanekezela phakathi kokuhlanganisa nokususa** 15 - 9 = ☐ Umfundi uyazi ukuthi isibalo singaphinde sibhalwe njengesibalo sokuhlanganisa: “ngiyazi ukuthi 9 + ☐ = 15.” Umfundi angasebenzisa ukubala ukuze ukwazi ukubala. **Amabhondi ezinombolo** Ukuze kwenziwe amabhondi ezinombolo, izinhlobonhlobo zemisebenzi kufanele zinikezwe abafundi. loku kulungele kahle ukwenziwa ngesikhathi sokusebenza ngokuzimela. Umugqa wezinombolo ungasetshenziswa ukuzijwayeza amabhondi kufinyelele e 10.	

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1.14 **Ukuhlanganisa ngokuphindaphin-da okuholela ezibalweni zokuphindaphinda**	• hlanganisa inombolo efanayo ngokuphindaphinda kufinyelele ema- 50 • ukuphindaphinda izinombolo e-1kufinyelele e-10 ngo 1, 2, 5, 3 no 4 • sebenzisa izimpawu ezifanele(+, x, =, ☐)	• hlanganisa inombolo efanayo ngokuphindaphinda kufinyelele ema- 20 • ukuphindaphinda izinombolo e-1kufinyelele e-10 ngo 2, • sebenzisa izimpawu ezifanele(+, x, =, ☐)	**Ulaphi umehluko eBangeni loku-1** Abafunsi bazokwenza ushintsho ukusukela eekuhlanganiseni ngokuphindaphinda kuya ezibalweni zokuphindaphinda. Baqala ukwazi umqondo wezibalo zokuphindaphinda. Bazokwenza umsebenzi obavumela ukubona ubudlelwano phakathi kwezinombolo: • inombolo yezinto eqoqweni • inombolo yamasethi noma amaqoqo • inombolo eyisamba abafundi bafika eBangeni lesibili bekwazi ukuhlanganisa ngokuphindelela. Ngasekupheleni kwethemu kumele bebesebekwazi uku: • ukuhlobanisa ukubala ngokweqa nokuhlanganisa ngokuphindelela ekwazini ukuphindaphinda; • sebenzisa, ukufunda nokubhala uphawu lokuphindaphinda; • bhala izibalo zemisho zokuphinda; kanye • phindaphinda izinombolo 1 kuya 10 ngo 2. Uma kuxazululwa izinkinga zezibalo zamagama abafundi bazothanda ukusebenzisa ukuhlanganisa nokuphindelela, ngaphandle kwalezo zibalo ezinomfanekisa wokuhleliwe. Kusesimweni esijwayelekile sezimo ezikhululekile yezimo ezikhululekile eminye imifanekiso yokuphindaphinda ingasetshenziswa.	

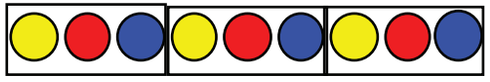
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1.14 **Ukuhlanganisa ngokuphindaphin-da okuholela ezibalweni zokuphindaphinda**			**Ukuhlela** Njengoba abafundi bethola ulwazi ngezinhlobo ezahlukene zezibalo zokuphindaphinda, ukubeka amaqoqo kuhleleke kunganikezela uhlelo lokukhombisa ukwakheka kokuphindaphina isib. 2 x 4 kufana nokuthi 4 x 2.  4 + 4 = 8  2 + 2 + 2 + 2 = 8Ukusebenzisa uhlelo kukuvumela uku: • ukwakha nokuhlakaza izinombolo; • ukuxhumanisa ukuphindaphinda nokuhlanganisa ngokuphindelela; • ukucabanga ngokuphindaphinda njengohlelo; noku • lukundlala isizinda semithetho yokuphindaphinda Gxilisa ukuthi abafundi banake inombolo yemigqa nenombolo yezinto zokubala emigqeni.  4 + 4 = 8	

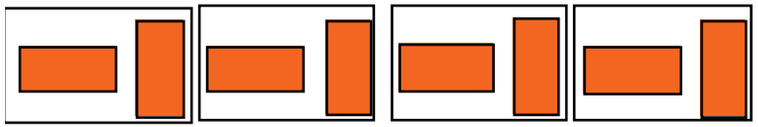
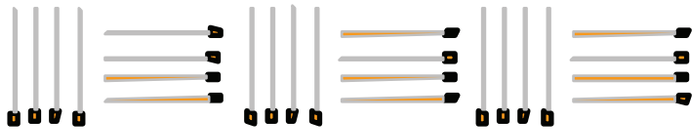
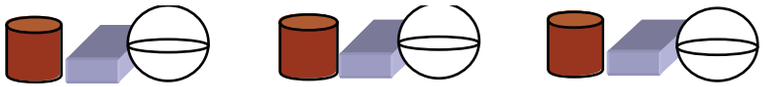
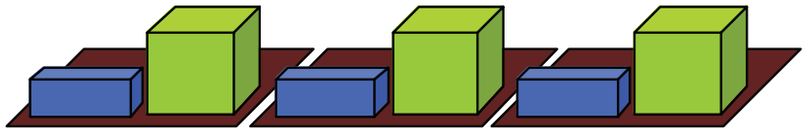
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1.14 **Ukuhlanganisa ngokuphindaphin-da okuholela ezibalweni zokuphindaphinda**			kukhona 4 imigqa yoku 2, okuyi 8 sekukonke. Abafundi kufanele babhale ngalendlela elandelayo:  2 + 2 + 2 + 2 = 8 kukhona 2 imigqa yoku 4 yoku 8 sekukonke. Igama “isikhathi” sebengathulelwa: 4 kuphindwa 2 kwakha 8. Uma abafundi sebenolwazi olwanele, uphawu lokuphindaphinda lungathulwa kanye nolimi olulandelayo useluthuthukisiwe: • 4 amaqoqo ka 2 • 4 okungakubili • 2 + 2 + 2 + 2 = 8 • 4 amaqoqo okubili noma 4 kuphindwa 2 yi 8 Ngisho noma uphawu seluthuliwe, amagama, izithombe zokuphindaphinda imifanekiso yokulekelela ukuqondisisa uphawu kuhlale kubalulekile. Imifanekiso yokuqondisisa ukuphindaphinda: • Amabhuloki axhumekayo angasetshenziswa axhunywe abe uhla loku 4 ohleni ngalunye kungaba amabhuloki a 2. Loku kuvumela abafundi ukuba bathi: there are four stacks and there are 2 in each stack.. Kubavumela ukubhala 2 +2 + 2 + 2 namaqoqo a- 4 oku 2 kusho 4 x 2. • Umugqa wezinombolo ungasetshenziswa ukukhombisa ukuhlanganisa ngokuphindelela noma amaqoqo ezinombolo. Loku kuxhunyaniswa nokubala ngokweqa. Abafundi kufanele bakwazi ukubhala loku okulandelayo: 1 iqoqo lika 2 kwakha 2 noma 1 kuphindwe ka 2 kwakha 2 noma 1 x 2 = 2 2 iqoqo lika 2 kwakha 4 noma 2 kuphindwe ka 2 kwakha 4 noma 2 x 2 = 4 3 iqoqo lika 2 kwakha 6 noma 3 kuphindwe ka 2 kwakha 6 noma 3 x 2 = 6	

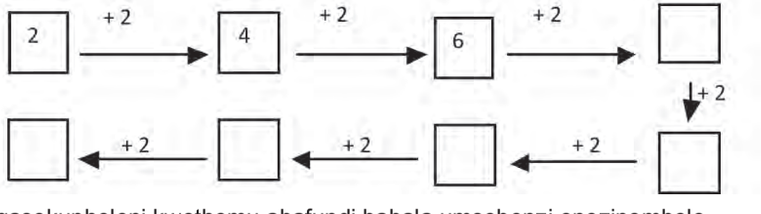
ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.16 **Izibalo zekhanda**	**Ulwazi Lwezinombolo: Uhla Lwezinombolo kufinyelela ku 99** • Hlela iqoqo lezinombolo. • Qhathanisa izinombolo kuya kuma -99: • Eningi noma encane ngo 1 • Eningi noma encane ngo 2i • Eningi noma encane ngo 3 • Eningi noma encane ngo 4 • Eningi noma encane ngo 5 • Eningi noma encane nge10	**Ulwazi Lwezinombolo: Uhla Lwezinombolo kufinyelela ku 99** • Hlela iqoqo lezinombolo. • Qhathanisa izinombolo kuya kuma -99: • Eningi noma encane ngo 1 • Eningi noma encane ngo 2 • Eningi noma encane nge10	**Ulaphi umehluko eBangeni 1** **Lethemu igxile kulokhu:** Izibalo zekhanda kumele zithuthukiswe ngendlela ethile onyakeni. Abafundi akufanele batshelwe ukwenza ukubala okungaheliwe ngelanga. Njengoba abafundi bafunda izihloko nokuthuthukiswa kwamasu okubala engxenyeni enkulu yesifundo, ezinye izinto ezenziwayo zingafakwa ohlelweni lwezibalo zekhanda ukuthuthukisa ukuqonda namakhono esifundweni sezibalo,okwenziwayo ngesinye isikhathi ngezinombolo elisezingeni elincane, ezibalweni zekhanda. Ungayigcina inombolo iphansi ngethemu 1 bese uyinyusa maphakathi nonyaka. Ekuqaleni konyaka, izinga lezinombolo namasu okubala angancika kulawo athuthukiswa eBangeni 1. **Umqondo wezinombolo:** **Izibonelo zemibuzo engabuzwa:** **Izinombolomagama nezimpawu** Bamba uphakamise ikhadi noma ubhale phansi inombolomagama. Khetha umfundi ozoqondanisa nenombolo. **Okungaphezulu nokungaphansi** Yini • 1 ngaphansi kwe 15 • 1 ngaphezu kwe 9 • 10 ngaphezu kwe 15 • 10 ngaphansi kwe 16 Iyiphi i-alfabheti ye 5th ? Iyiphi inyanga ye- 9th yonyaka? **Ukuhlela nokuqhathanisa** Ikuphi okungaphezulu: 12 noma 21? Nginike inombolo ephakathi kuka 17 no 19.	

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	Khumbula ngokushesha: • Khumbula izindlela zokuhlangani sa nokususa kuyofinyelela e 20 • Hlanganisa noma ususe kusukela ngama 10 kusukela e-0 kufinyelele e 100 **Amasu okubala** Sebenzisa amasu okubala ukuhlanganisa nokususa ngempumelelo: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma uye emuva • Umugqa wezinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Ukwakha nokuhlakaza • Sebenzisa ubudlelwane phakathi kokuhlanganisa nokususa	**Khumbula ngokushesha:** • Khumbula izindlela zokuhlangani sa nokususa kuyofinyelela e 10 **Amasu okubala** Sebenzisa amasu okubala ukuhlanganisa nokususa ngempumelelo: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma uye emuva • Umugqa wezinombolo zekhanda • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Ukwakha nokuhlakaza • Sebenzisa ubudlelwane phakathi kokuhlanganisa nokususa	**Amaphuzu okuhlanganisa nokususa:** • Ukwazi ngengqondo wonke amabondi okuhlanganisa nokususa kufinyelele e 10 □ + △ = 10 □ + △ = 8 Okuyiko ngokuhlanganisa nokususa zonke izinombolo kufinyelele e 10 1 + 9 = 10 9 + 1 = 10 2 + 8 = 10 8 + 2 = 10 8 - 4 = 4 8 - 4 = 4 8 - 5 = 3 8 - 3 = 5 Ukukhumbula ngokushesha okuphindwe kabili kufinyelele e 10. Lokhu kumele kufake okuhambisana nokuyikho ngokususa. • 1 + 1 = 2 • 2 + 2 = 4 • 3 + 3 = 6 • 4 + 4 = 8 • 5 + 5 = 10 Ngikhombise inombolo okufanele ngihlanganise nayo..... ukwakha i- 10 (bhala phansi noma sebenzisa amakhadi enani lezinombolo nama Flard cards) • 8 • 2 • 9 • 5 • 3	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
			Ngikhombise inombolo esele uma …. Kususwe e 10(bhala phansi noma sebenzisa amakhadi enani lezinombolo nama Flard cards) • 5 • 3 • 6 • 1 • 7 Ezinye izibalo zekhanda zingenziwa ngaphandle kokusebenzisa izinsiza, kodwa njalo kuyasebenza ukwenza izibalo zekhanda ngezinsiza nokubhala okwenziwe. **Izinsiza ezinconywayo** • Umugqa wezinombolo (ohleliwe nongenalutho) • igrid yezinombolo • amakhadi enani lenombolo (Flard cards) • ubuhlalu bokubala	

ITHEMU YOKU-1 YEBANGA LESI-2 2. AMAPHETHINI, UBUDLELWANE NE ALJEBHRA				
ISIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni zehora eli-1 nemizuzu engama-24)
2.1 **Amaphethini okusejiyometri**	**Ukubukela, ukuqhubeka nokuchaza** ukubukela, ukuqhubeka nokuchaza ngamagama • amaphethini alula enziwe ngezinto eziphathekayo • amaphethini elulaenziwe ngemidwebo yemigqa, izimu noma izinto. **Ukwakha nokuchaza amaphethini angawakho** Ukwakha amaphethini akho ngokusejiyometri • ngezinto eziphathekayo • ngokudweba imigqa, izimo noma izinto **Amaphethini asizungezile** Khomba, uchaze ngamagama ubukele amaphethini okusejiyometri • ngokwemvelo • empilweni yesimanje yansukuzonke • emagugwini amasiko ethu	**Ukubukela, ukuqhubeka nokuchaza** ukubukela, ukuqhubeka nokuchaza ngamagama • amaphethini alula enziwe ngezinto eziphathekayo • amaphethini elulaenziwe ngemidwebo yemigqa, izimu noma izinto. **Ukwakha nokuchaza amaphethini angawakho** Ukwakha amaphethini akho ngokusejiyometri • ngezinto eziphathekayo • ngokudweba imigqa, izimo noma izinto	Ukubukela kusiza abafundi ukubona ukuthi iphethini yakheke kanjani. Ukuqhubeka nephethini kusiza abafundi ukuba babheke ukuthi bayiqondisisa kahle yini iphethini nokulandelana kwayo. Ukuchaza iphethini kusiza abafundi ukuthuthukisa ulimi lwabo namakhono okukhuluma. Kuphinda kusize nawe ukubona ukuthi abafundi bayihumusha kanjani iphethini. Kuhlale kulula kufafundi ukukhuluma ngephethini uma yenziwe yibona. Abafundi badinga ukuqeqeshwa ukuthi yini abayibhekayo nokuthi bayichaza kanjani iphethini. Ungabakhombisa loku ngokubuza imibuzo efana nale. “iziphi izakhiwo ozibonayo kulephethini?” “ “ngabe wonke anombala ofanayo?” “ubuna isimo esisodwa noma eziningi kulephethini?” “ngabe zonke izinto zibheke endaweni efanayo?” “ngabe inombolo yezinto iyafana eqoqweni ngalinye?” “zingaki izinto ezikhona eqoqweni ngalinye?” “ngabe zonke izimo nobungako kuyafana?”njll. Ukufaka okunhlangothimbili (2-D) izimo ezisejiyometri nokunhlangothi ntathu (3-D) izinto ezisazibalo mdwebo abafundi okufanele bafunde ngazo. Abafundi bangazakha izimo ezi 2-D ngokusika amaphepha noma amakhadi, noma bengazidweba. Bengakaha amaphethini ngezimo zamabhokisi, izimo zamabhola namasilinda lezo abazenze ngobumba noma inhlama yokudlala. Amaphethini angenziwa ngokusebenzisa into eyodwa kodwa imibala yazo ishintsha ngendlela efanayo. **Isibonelo:** 	1 isifundo

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni zehora eli-1 nemizuzu engama-24)
2.1 **Amaphethini okusejiyometri**			Amaphethini angenziwa kusetshenziswa amaqoqo afanayo aphindaphindayo, lapho iqoqo ngalinyelinenhlobo eyodwa yento kodwa isikhundla sento sishintshe. Amaqoqo afanayo ayaphindwa. **Isibonelo:**   Kwamanye amaphethini izinto ezahlukene ziyasetshenziswa ukwakha iqoqo, kodwa iqoqo lezinto liphindwe ngendlela efanayo. **Isibonelo:**  Amaphethini angenziwa lapho ubungako bezinto zishintshashintsha ngendlela efanayo.  Abafundi bengenza amaphethini ngokutshutsha ubuhlalu. Amaphethini angenziwa nasesifundweni saMakhono Empilo.	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni zehora eli-1 nemizuzu engama-24)
2.2 **Amaphethini ezinombolo**	**Ukubukela, ukuqhubeka nokuchaza** Ukubukela, ukuqhubeka nokuchaza izinombolo ezilula ezilandelanayo kufinyelele e 200 **Ukwakha nokuchaza amaphethini okungawakho** Ukwakha awakho amaphethini ezinombolo	**Ukubukela, ukuqhubeka nokuchaza** Ukubukela, ukuqhubeka nokuchaza izinombolo ezilula ezilandelanayo kufinyelele e 100 Ukulandelana kubalwa kuyiwa phambili nasemuva ngo: • nga-1 kusukela ku-noma iyiphi inombolo ephakathi 1 and 100 • nga-10 ukuphinda nga10 kusukele ku-noma iyiphi inombolo phakathi kuka 1 no 100 • nga-5 ukuphinda nga 5 kusukele kunoma iyiphi inombolo phakathi kuka 1 no 100 • nga-2 ukuphinda nga 2 kusukele kunoma iyiphi inombolo phakathi kuka 1 no 100	Ukulandelana kwezinombolo kungaxhunyaniswa futhi kulekelelwe ukubala. Njengoba amakhono abafundi okubala eshintsha futhi ethuthuka, izinhlobo zezinombolo ezilandelayo abafundi abasebenza ngazo zingathuthuka. Ukulandelana kufanele kukhombise ukubala okuqhubekayo nokuya emumva ngo: • Nga-1 ukuphindaphinda kusukela kunoma iyiphi inombolo ephakathi kuka 1 no 100 • Nga-10 ukuphindaphinda kusukela kunoma iyiphi inombolo ephakathi kuka 1 no 100 • Nga-5 ukuphindaphinda kusukela kunoma iyiphi inombolo ephakathi kuka 1 no 100 • Nga-2 ukuphindaphinda kusukela kunoma iyiphi inombolo ephakathi kuka 1 no 100 EBangeni lesi- 2 abafundi babala baye emuva nga10, 5, no 2 okokuqala. Abafundi bangakhomba izinombolo ngesikhathi bebala. Kuyasebenza ukunika abafundi izinombolo ezilandelanayo ekuthuleni okuhlukahlukene isib. • Ukulandelana okubhaliwe kwezinombolo 100; 99; 98.97; 96, …… • umugqawezinombolo • igridi lezinombolo • iketanga lezinombolo Abafundi bangenza, umbala, nokuzungezela izinombolo bebebebala beqhubeka emugqeni wezinombolo negrid yezinombolo. Abafundi bangagcwalisa izikhala ezinezinombolo ezingekho emugqeni wezinombolo, igrid yezinombolo,ukulandelana kwezinombolo eketangeni lezinombolo. Isib.  Ngasekupheleni kwethemu abafundi babala umsebenzi onezinombolo ezilandelanayo uksuka nokufinyelela e 100.	3 izifundo

ITHEMU YOKU-1 YEBANGA LESI- 2 3. INDAWO NESIMO (IJIYOMETRI)				
IZIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU**	**AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni zehora eli-1 nemizuzu engama-24)
3.2 **Onhlangothintathu 3-D**	**Uhla lwezintoezi-3-D** **Buka bese usho izinto ezi-3-D lapha ekilasini nasezithombeni.** • Izimo ezisabhola, (imbulunga) • Okusabhokisi (iprizimu) • Amasilinda **Izimpawu zezinto ezi3-D** Chaza, uhlele ubuye uqhathanise izinto ezi-3-D ngokwe; • ubungako • izinto ezigingqikayo • izinto ezishelelayo **Imisebenzi okugxilwe kuyo** Buka bese wenza izinto ezi-3-D usebenzisa izinto eziphathekayonjen-gokusika ukhipha onhlangothimbili 2-D, amabhulokI okwakha, izinto ezike zasebenza,ikhithi yokwakha,onhlangothi-ntathu-3-D nezinto ezisazibalombhalo,	**Uhla lwezintoezi-3-D** **Buka bese usho izinto ezi-3-D lapha ekilasini nasezithombeni.** • Izimo ezisabhola, (imbulunga) • Okusabhokisi (iprizimu) • Amasilinda **Izimpawu zezinto ezi3-D** Chaza, uhlele ubuye uqhathanise izinto ezi-3-D ngokwe; • ubungako • izinto ezigingqikayo • izinto ezishelelayo **Imisebenzi okugxilwe kuyo** Buka bese wenza izinto ezi-3-D usebenzisa izinto eziphathekayonjen-gokusika ukhipha onhlangothimbili 2-D, amabhulokI okwakha, izinto ezike zasebenza,ikhithi yokwakha,onhlangothi-ntathu-3-D nezinto ezisazibalombhalo,	**Yini okwehlukile eBangeni 1** • Amasilinda masha eBangeni 2 kodwa angafundiswa ethulwe ngoThemu 3. KuThemu 1abafundi babukeziswa futhi kulanganiwse nalokho abakwenzile nabakufundile eBangeni 1.Abafundi mabagxiliswe kumasilinda ngoThemu 3 Umsebenzi omningi wonhlangothintathu 3-D useBangeni 2 kumele wenziwe ngezinto eziphathekayo.Thina siwazi umhlaba ngezindlela ezintathu ngakho kuyasisa ukuqala ngokusebenzisa izinto eziphathekayo ukuze umfundi asebenzise ulwazi analo alulethe esikoleni. Abafundi abaningi bayehluleka ukuhumusha onhlangothintathu 3-D nezinto ezisazibalombhalo ezithombeni.Ukusebenza ngezinto eziphathekayo kuyabasiza abafundi ukuthi bakwazi ukuhumusha kahle izithombe ezinezinto ezisazibalombhalo ngokuhamba kwesikhathi.Uma uphethe into ephathekayo bese ulokhu uyibukabuka kuwowonke amacala,yilapho ubona khona ukuthi lento oyibukayo ngaphansi nangemumva ifana nani. Uma unesithombe unakho ukubuka ngoqondo ubone izingxenye ezingabonakali entweni edwetshiwe,lokhu akulula kubafundi abasebancane ukwenzeka.Uma abafundi bangatshelwa incazelo yaleyonto ngaphandle kokuthi bayibone noma bayithinte,yingakho kulukhuni ukuthi aziqonde izimpawu zaleyonto ngokugcwele. **Ukwakha izinto ngonhlangothintathu 3-D** Abafundi abakopele umfanekiso wento abayikwe uthisha isib.umbhoshongo,iro bhothi,isitimela,inqaba,njll.Imifanekiso noma okokwakhiwe kungasetshenziswa amabhuloki,izinto ezike zasebenza, ikhithi yokwakha,neziny izinto zezibalombhalo ze 3-D Kusikwe izimo zo2-D Lokhu kungenzeka ngesikhathi sokufunda ngokuzimela. Kusemqoka ukuthi abafundi bakhulume ngalemifanekiso abayenzile, njengokwakha umbhoshongo owakhiwe ngamabhuloki nangamabhokisi. Ubabuzu imibuzo “Ungakwazi ukwakha umbhoshongo ngamabhola?Bazochaza bephendula imibuzo. **Chaza uqhathanise izinto eziingo 3-D** Abafundi baqhathanisa ubungako bezinto ezifanayo ezi- 3-D isib. • Hlela amabhola ngobungako bawo • Sebenzisa uLimi lobungako nokuqhathanisa izinto. Ibhokisi likhulu kunebhola ngoba ngiyakwazi ukufaka ibhola ebhokisini	3 lessons

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni zehora eli-1 nemizuzu engama-24)
3.2 **Onhlangothintathu 3-D**			**Chaza izinto 3-D;Imibala** Abafundi bakhuluma ngemibala yezinto bese behlela izinto ngemibala Khomba ubuye usho izinto ngemibala yazo babuye baqhathanise ngobungako bezinto kubuye kjwenziwe ngesikhathi sokufunda ngamaphethini. **Izinto ezi-3-D zeBanga 2** Abafundi basebenza ngalokhu • Amabhola nezinto ezisabhola • Izinhlobo zamabhola nezinye izimo ezime njengonxande amaprizimu noma amakhiyubhi.Abafundi bazozifunela ukuthi yiziphi izinto eziginqikayo nezi shele-layo. **Ukugqamisa izimpwu zezinto ze-3-D** Abafundi bakha int eshelelayo noma utshekise ibhokisi ngokulibeka ngaphansi kwengxenye yencwadi.Yilapho bezobona khona ukuthi abakubekayo kuzoshelelela noma kuginqike Lapha, siqhubeka kumsebenzi esiwenze eBangeni 1 kodwa manje sifaka namasilinda.  Abafundi bathola ithuba lokuziphenyela ukuthi bangazenza yini izitaki noma umbhoshongo usebenzisa amabhola noma amabhokisi kuphela. **Ukubona nokusho amabhola (okusambulunga)** Abafundi bathola izinto ezinhlobonhlobo ukuze bazisebenzise • Izimo njengokusambulunga isib.amabhola anobungako obungalingani, izimabuli, amawolintshi njll. • Izimo ezinjengamaprizimu njengamabhuloki, izitini, amabhokisi isib. Amabhokisi kametshiso, etiye, noma yiliphi ibhokisi elingenalutho elingakusiza.	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni zehora eli-1 nemizuzu engama-24)
3.2 **Onhlangothintathu** **3-D**			Abafundi bathola izinto ezisabhola (imbulunga,) noma okumise okusabhokisi (okweprizimu) ngenkathi bethola amaqoqo ezinto.Abafundi bazothola noma batshengise ngezinto ezisabhokisi (iprizimu) ezisekilasini isib. Isitini simi noma leli wolintshi lifana nebhola.njengebhokisi. Ngesikhathi sokufunda ngokuzimele bangaqhubeka benze lokhu; • Hlela izinto ngobungako • Hlela izinto ngemibala; • Yakha izinto ezithiile • Benza amabhola nangamabhokisi (iprizimu) ngodongwe /ubumba **Imisebenzi ebhalwayo** Noma imisebenzi eminingi ephathekayo seyenziwe ngo3-D makuhlanganiswe nomsebenzi wokubhala. **uLimi** Kusemqoka ukuthuthukisa amakhono okukhuluma ngezimo ezingonhlangothintathu-3-D • ULimi olufanele lobungako; amazing a okukhula • Imibala • ULimi lwezinto olufanele; amabhokisi, amabhola, (Asikho isidingo sokuthi abafundi bazi igama (imbulunga) • ULimi lwesikhundla olufanele ukuchaza ukwakha isisb. Ngaphezu kwe...,ngaphansi.ngemumva,ngphambili, Eduze kwe, okuhambisana nen-gaphansi, ngale eduze, phakathi nengaphakathi, ngaphandle ULimi olufanele lobungako nemibala kungathuthukiswa ngesikhathi kufundiswa uLimi kanye namaKhono eMpilobese isetshenziswa nangenkathi kufundiswa iziBalo.ULimi lwesikhundla olufanele luthuthukiswe ngesikhathi sokufundisa izifundo zoLimi nesifundo samaKhono eMpilo nangesikhathi abafundi begxile kakhulu ngokufunda ngesikhundla.Lungasetshenziswa futhi lwenziwe ngesikhathi benza izinto zo 3-D	

ITHEMU YOKU- 1 YEBANGA LESI- 2 4. ISILINGANISO				
IZIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU**	**AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni zehora eli-1 nemizuzu engama-24)
4.1 **ISIKHATHI**	**UKUKHULUMA NGESIKHATHI** • Ukwazi ngezinsuku • Ukwazi ngezinyanga zonyaka • Beka ishadi lokuzalwa, imigubho yezinkolo, amaholide, izigameko eziwumlando, izigameko zesikole kuyikhalenda • Batshele ngamahora ayi-12, uHafu wehora,iKota yehora **UKUBALA UBUDE NOKUDLULA KWESIKHATHI** Sebenzisa ikhalenda ukubala nokuchaza ubude besikhathi ngezinsuku noma ngamasonto. Sebenzisa iwashi ukubala ubude besikhathi ngamahora, nangohafu wehora noma ikota yehora .	**UKUKHULUMA NGESIKHATHI** • Ukwazi ngezinsuku zeviki • Ukwazi ngezinyanga zonyaka • Beka ishadi lokuzalwa, imigubho yezinkolo, amaholide,izigameko eziwumlando, izigameko zesikole kuyikhalenda • Batshele ngamahora ayi 12, uHafu wehora,iKota yehora	EBangeni 1abafundi bakhulume ngalokhu • Ukulandelanisa izigameko • Isikhathi esingakanani. Abafundi bafundile ngezinsuku zeviki nangezinyanga zonyaka bakusebenzisa nakwezinye iziLimibelandelanisa izigameko ngezimpilo zabo.Bakhuluma besho ukuthi izinto zenzeka isikhathi esingakanani, besbenzisa ulimi njengokudana, kufishane, kusheshilenoma kunensile kune.. Abafundi bahlela ukulandelana kwezzithombe • Iizindlela zokwenza inkomishi yetiye; • Izithombe zokukhula komuntu azabe mdalanphotographs • Impilo yovemvane • izigameko ezejwayelekile zosuku (ukuvuka,ukuba sesikoleni,udlala,udla,ulala). Babeka izinsuku zabo zokuzalwa kwikhalenda unyaka wonke EBangeni 2 abafundi bayaqhubeka bekhuluma ngbude besikhathi nangokulandelana kwaso.Ngesikhathi kufundiswa ikilasi lonke nesikhathi samaqembu abafundi bayaqhubeka bekhuluma ngezinsuku zesonto nangezinyanga zonyaka nokuthi ulwesingaki namhlanje,kusasa ulwesingaki. Abafundi bayayijwayela ikhalenda beqhubeka bebeka. • izinsuku zokuzalwa; • imigubho yezenkolo • iziigameko eziwumlando • izigameko zesikole • amaholide kuyikhalenda Ngesikhathi abafundi befunda ngokuzimela bayaqhubeka bebelandelanisa izigameko ezenzeka nsuku zonke ezimpilweni zabo nokulandelanisa izigameko bezihlela ngezithombe.	2 izifundo

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni zehora eli-1 nemizuzu engama-24)
4.1 **ISIKHATHI**			**Yini umehluko eBangeni loku-1?** Lapha eBangeni lesi- 2 kuyakhulunywa ngesikhathi ikakhulukazi ukufunda ngewashi.KuThemu 1 abafundi bagxilisa ukukhuluma ngesikhathi,amahora,iwashi elinezinti. Noma kunjalo abaqhubeke bakhulume ngezigigaba zosuku. Isib, abasho iukuthi isikole siqla nini,isikhathi sokuphumula,ufika nini ekhaya,noma isifudo sithatha isikhathi esingakanani. Khetha isikhathi lapho iwashi lishaya nqo ihora.Kuyasiza ukuba newashi elikhulu obondeni, ukuze abafundi balibone bakhombe kulo.Bayazakhela imifanekiso yamawashi.Ungabacela bakutshele ezinye izinhlobo zezikhathi. bafake nokubala.isib.Ngitshengise ihora leshumi.Ngitshene ukuthi kuzobe kusikhathi bani emva kwamahora ama-2 uma manje kuyihora le-10	
4.2 **UBUDE**	**sikali esingenasiliganiso** • Hlawumbisela, isilinganiso,uqhathanise, uhlele bese ubhala ubde usebenzisa amayunithi angalinganisiwe isib. Isandla, izinyathelo, ipensela, ubude, okokubala njll. • Usebenzisa amayunithi angahleliweChaza ubude bezinto ubala usebenzisa amayunithi amade angahleliwe • Ukusebenzisa uLimi ukhuluma ngokuqhathanisa isib. kude kune..., kufushane kune...., kuphakeme kune..., kubanzi kune...	**Isikali esingenasiliganiso** • Hlawumbisela, isilinganiso,uqhathanise, uhlele bese ubhala ubde usebenzisa amayunithi angalinganisiwe isib. Isandla, izinyathelo, ipensela, ubude, okokubala njll. • Usebenzisa amayunithi angahleliwe.Chaza ubude bezinto ubala usebenzisa amayunithi amade angahleliwe • Ukusebenzisa uLimi ukhuluma ngokuqhathanisa isib. kude kune..., kufushane kune...., kuphakeme kune..., kubanzi kune...	**Yini umehluko eBangeni loku-1?** EBangeni loku-1 abafundi bagxiliswe - • Ngokubeka izinto maduze nezinye ukuqhathanisa ubude, ukuphakama, kanye nobubanzi placing • Isikali esingenasilnganiso kanye namayunithi angalinganiselwe obude Ithemu 1 eBangeni 2 abafundi bayaqhubeka bagxile kuso isikaliesingenasilinganiso kusetshenziswa amayunithi angalinganisiwe, futhi kungathulwa amamitha njengeyunithi yokulinganisa **Isikali esingalinganisiwe sobude usebenzisa amayunithi angalinganisiwe** Abafundi bangafunda yonke imigomo yokulingnisa futhi bayisebenzise ngamayunithi angalinganisiwe.ISILINGANISO ngesikali esingalinganisiwe angeke usibukele phansi kunesikali samayunithi alinganisiwe Ukukala ubude ngesikali samayunithi angenasilinganisio ubuye ubale ukhetha amayunithi obude obulinganayo ngesikhathi leyonto ikalwa isib. Ubude bedesiki buyizandla eziyi-8. Abafundi kumele bakale izinto ezinhlobonhlobo besebenzisa uhla lwezinto njenamayunithi angalinganisiwe.	

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4.2 UBUDE	**IUkwethula isikali esingenasilinganiso** Hlawumbisela,isilinganiso, uqhathanise, uhlele bese ubhala ubde usebenzisa amamitha (induku yamamitha noma intambo ende) njengendlela ehleliwe yobude		Zintathu izindlela zokusebenzisa amayunithi angalinganisiwe,ubude, ibanga nokuphakama • Layisha izinto uzimake lezo osuzikalile emgqeni izinto eziningi zobude obulinganayo njengamabhokisi kametshisi,amabhodlela anezimo nezivalo ezifanayo, noma okokubala amapensela njll.isib. ukukala ubunzi bedesiki, umthwalo wamapensela amasha uwabeke ekugcineni nasekuvundleni kwedesiki Nakhu okusemqoka, • zonke izinto zinobude obulinganayo,Angeke usho ukuthi ibhuku linobubanzi obulingana nezivalo zamabhodlela ayi-12 uma izivalo zamabhodlela zi-nobungako obungafani.isib.Izivalo zamabhodlela obisi,izivalo zamabhodlela kajusi,izivalo zamabhodlela ewuthayela. • Azikho izikhala ezisele phakathi kwezinto;Badinga ukubekwa ngandawonye ukuze bathintane. Sebenzisa izinto ezifanayo njengamayunithi angalinganisiwe. Beka enye eduze kwenye, susa eyokuqala, uyigudlukisele kwelinye icala lesibili.Lokhu kwenzeka ngesikhathi ukala ngesandla, nangobude bonyawo noma amagxathu. • Sebenzisa into eyodwa njengesikali esingalinganisiwe, yenza uphawu lokut-shengisa, lapho ugcine khona. Abafundi kumele bafundise njalo basho iyunithi leyo. Isib.incwadi inobubanzi obungangezivalo zamabhodlela ayi-12, ikilasi lona lide ngamagxathu angama 38. Uma abafundi sebeke balinganisa ngamayunithi izikhathi eziningana, kumele baqagele ukuthi zingaki izinto ezinamayunithi amade akaliwe.Ukuqagela isilinganiso ngaphambili kusemqoka kodwa kungenziwa uma sebeke bazenza ezinye izilinganiso ngamayunithi. Abafundi badinga ukufundiswa ukuze bakwazi ukuqagela ubude, ukuphakama, noma ububanzi iyunithi afanayo kumele isetshenziswe.isib. Uma ububanzi bomnyango bulinganiswa ngezandla ezinga-20 bese kuthi ububanzi bedesiki sibe amapensela ayi- 8 ubude,ungeke usho ukuthi umnyango unobubanzi obuvulekile kunedesiki	

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni zehora eli-1 nemizuzu engama-24)
4.2 **UBUDE**			Abafundi kumele bakale ngohla ngamayunithi angenasilinganiso,yingakho; • Baqala ukuqonda ukwazi amayunithi amancane,amade adinga isikhathi esiningi sokukwenza.isib.ububanzi bekilasi bungalingana namagxathu an-gama-20 bese ubude bube iznyawo ezingama-48 • Baqala ukusebenzisa amayunithi okuyiwonawona kulokho abakukalayo isib. Ukukala ububanzi bekilasi usebenzisa izivalo zamabhodlela kuwukuchitha isikhathi **Ukwethula isilinganiso esihleliwe** Isikhathi esiningi eBangeni 2 kumele sisichithwe ngsikali esingalinganisiwe. Abafundi abathole ithuba lokuthuthukisa ulwazi lokubona ubude bemitha.Lokhu kwenzeka kahle uma abafundi sebekala besenzisa ubude bemitha"ithulusi" (njengeirula eliyimitha,induku engangemitha ubude).Ngokubona ubude bemitha kusiza abafundi bakwazi ukuba nesithombe sokwazi ukuthi imitha lide kangakanani.Kuyenzeka ukukala ngamamitha ngesondo lamamitha,kodwa ubude bemitha akulula ukububona Abafundi sebengaqala ukuthola izinto ezifana ncimishi nobungako bemitha. Kuyasiza ukuba nezinto esingaqhathanisa ngazo izilinganiso ezehlukene. Isib. Ububanzi bomnyango nokuphakama kwefasitela kunaba imtha 1m. Lokhu kungasiza abafundi bakwazi ukusebenzisa lobobude babone ngokuqagela ubude bezinto abangazikala.. Uma abafundi sebenolwazi lokukala ngamamitha sebengaqagela ngaphambi kokwazi isilinganiso. Abafundi sebengathola izinto ezindana noma ezimfishana kune mitha elilodwa. Ekugcineni sebengakala izinto ezinobude nobubanzi obuhlukene ngamamitha. **Ukubhala izilinganiso** Ukulinganisa kulikhono eliphathekayo, abafundi kumele babhale izilinganiso abazitholile.(zombili zamayunithi angahleliwe namamitha) ngazozonke izikhathi **Ukukala ubude njengesimo esijwayelekile ukuxazulula izinkinga nokubala** Ngesikhathi esinikeziwe sezinombolo,ukusebenza kanye nokusebenza kwazo abafundi baxazulula izinkinga besebenzisa isimo esijwayelekile njenge- • Isikali esingahlelekile sobude isib.idesiki lika Lebo liyizandla ezi 11 ubude, idesiki likathisha liyizandla ezingu -19 ubude. Lide kangakanani idesiki likathisha? • Ukukala ubude ngamamitha Qikelela ubheke uhla lwezinombolo eziqondene neThemu, bese ubheka uhla lwezinhlobo zezinkinga eziqondene naleyo themu..	Izifundo ezi-3

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni zehora eli-1 nemizuzu engama-24)
4.3 Isisindo	**Isilinganiso esingahlelekile** • Hlawumbisela, ulinganise, uqhathanise, uhlele bese ubhala isisindo usebenzisa amayunithi angalinganisiwe isib. Amabhuloki, izitini njll. • Ukusebenzisa uLimi ukhuluma ngokuqhathanisa isib. kulula,kuyasinda,kulula kakhulu, kusinda kakhulu njll **Ukwethula isikali esingenasilinganiso** • Qhathanisa, uhlele bese ubhala,i sisindo salezizimpahla ezidayisayo ezinesisindo esibhalwe kuyona ngamakilogramu isib. 2kg erayisi, no 1kg kafulawa • Bazilinganisa, izisindo zabo besebenzisa isilinganiso sasendlini yokugeza.		EBangeni loku-1 bekuncomeka ukuthi abafundi bagxiliswe ngokusebenzisa isilinganiso sesisindo • Qhathanisa isisindo sezinto bezibona; • Hlela bese uqhathanisa isisindo sezinto ezintathu noma ngaphezulu,ngokubeka phezu kwesisindo izinto ezihamba ngakubili,uze ubeke zonke izinto ngokulandelana • Thola isisindo sento usebenzisa amayunithi angenasilinganiso. Abafundi bagxila ekuthuthukisweni ulimi lokukhuluma ngesisindo. Ngesikhathi benza umsebenzi wokuzimela bangasebenzisa ukuqhathinisa, balinganise, bahlele, bese bebhala isisindo ngokusebenzisa ukuzimelela namayunithi angenasilinganiso. **Ukulinganisa ubude njengesimo esijwayelekile sokuxazulula izinkinga nokubala** Ukuxazulula izinkinga nukubala kungqhubeka usebenzisa isisindo esimeni esijwayelekile Ngesikhathi esinikeziwe sezinombolo, ukusebenza kanye nokusebenza kwazo abafundi baxazulula izinkinga besebenzisa isimo esijwayelekile sesisindo isib.. Indwangu yokwesula ibhodi inesisindo sezimabuli eziyi-11,Ibhokisi lamakrayoni linesisindo sezimabuli ayi-8.Sekuhlangene kuzoba nesisindo sezimabula ezingaki? Qikelela ubheke uhla lwezinombolo eziqondene neThemu, bese ubheka uhla lwezinhlobo zezinkinga eziqondene naleyo themu..	

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4.4 **Umthamo/ okumumethwe**	**Isikali esingenasiliganiso** • Qagela bese ulinganisa, qhathanisa bese uhlela umthamo wezitsha (isib, inani lomthamo ongaphathwa isitsha uma sigcwalisiwe). • Chaza umthamo wezitsha ngokubala nokusho ukuthi mangaki amayunithi angenasilinganiso akwazi ukugcwalisa isitsha isi. Ibhodlela linezinkomishi ezinel **Ukwethula isikali esingenasilinganiso** • Qagela, linganisa, chathanisa, hlela bese ubhala umthamo wezinto ngokulinganisa ngamalitha • Qhathanisa, uhlele, bese ubhala umthamo wezinto ezipakishelwe ukuthengisa ezinesisindo esichazwe ngamalitha isib, amalitha ama-2 obisi, ilitha e-1 yesiphuzo esibandayo, amalitha ama-5 kapende.		EBangeni 1 bekuncomeka ukuthi abafundi bagxiliswe kulokhu • Ukuthuthukisa ulimi lokukhuluma ngamithamo eyahlukene • Ukuqhathanisa imithamo yezitsha ezifanyo • Ukuqhathanisa umthamo wezitsha ezibukeka zingafani, nengobubanzi nangokuncipha kwazo. • Ukulinganisa umthamo ngezilinganiso namayunithi angalinganiswe. **Yini umthamo? Yini okumumethwe?** Ibhodlela lingaba nomthamo wazinkomishi ezine agcwele, kodwa ngeke ligcwale lidlulele, lingafaka umthamo wenkomishi eyodwa ngesikhathi. **Okumumethwe** kuwubungako baleyonto ethwalwayo (isikhala esingaphakathi kuleyonto) **Umthamo** ubungako bendawo engathathwa okuthile (Kwesinye isikhathi abafundi bayolinganisa okusaketshezi (noma isihlabathi,noma ngabe yini) okusesitsheni.Lokhu kuwukulinganisa okumumethwe kulesositsha. Ngezikhathi ezithile abafundi bazolinganisa ukuthi isitsha leso singamumatha sigcwalise umthamo ongaphezulu) Ngesikhathi sokwenza ngokuzimela bangazijwayeza ukuqagela, balinganise, bahlele, bese bebhala umthamo nokumumethwe ngezlinganso nangamayunithi angalinganisiwe. isib. Ukupheka nokubhaka kuyizimo ezijwayelekile lapho abafundi bazokwenza balinganise umthamo.Khetha isu lapho uzosebenzisa khona izilinganiso kuzoba izinkomishi,amathisuni kanye namayunithi angenasilinganiso. **Ukulinganisa umthamo njengesimo esijwayelekile sokuxazulula izinkinga nokubala** Ngesikhathi esinikeziwe sezinombolo, ukusebenza kanye nokusebenza kwazo abafundi baxazulula izinkinga besebenzisa isimo esijwayelekile somthamo noma isib.Ugogo usebenzisa izinkomishi ezimbili zobisi ukwenza uphudingi. Uma efaka izinkomshi ezimbili, uzodinga ubisi olungakanani?. Qikelela ubheke uhla lwezinombolo eziqondene neThemu, bese ubheka uhla lwezinhlobo zezinkinga.	

ITHEMU YOKU-1 YEBANGA LESI- 2 5. UKUQOKELELWA KOLWAZI				
IZIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU**	**AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni zehora eli-1 nemizuzu engama-24)
5.4 **Ukuqoqa nokuhlele ulwazi**	**ukuqoqa nokuhlela ulwazi** • Qoqa ulwazi ngekilasi noma ngesikole uphendule imibuzo ebuzwe uthisha	**ukuqoqa nokuhlela ulwazi** Qoqa ulwazi ngekilasi noma ngesikole uphendule imibuzo ebuzwe uthisha **ukubhala okumele ulwazi** Bhala okumele ulwazi **Ukuhlaziya nokuhumusha ulwazi** Phendula imibuzongegrafu yezithombe	**Yini umahluko eBangeni 1** • abafundi abasasebenzisi amaqoqo ezinto • Abafundi bayaqhubeka ngokusebenza ngegrafu yezithombe - ngokunikezwa zona zombili zibe yingxenye yolwazi oluphelele nokuhlaziya amagrafu yez-thombe. **Ulwazi olwanele oluqokelelwe ngokuphelele** Ulwazi oluqokelelwe ngokuphelele, • Abafundi baqoqa ulwazi ukuphendula umbuzo. Emazingeni aphansi naphakathi lombuzo uyabuzwa uthisha noma incwadi. • Abafundi bayahlela babhale okumele ulwazi ngendlela ezokwenza kube lula kubafundi ukuthi bakwazi ukuyihlaziya. Indlela yokubhala okumele ulwazi yikuthi abafundi beBanga 2 bayisebenzise igrafu yesithombe. • Abafundi bahlaziya ulwazi ngegrafu yesithombe ngokuphendule imibuzo ezobuzwa uthisha. **Igrafu yesithombe yekilasi** Kuyancomeka ukuthi eBangeni 2 abafundi basebenza ngolwazi olwanele lokuqokelelwe ngokuphelele, ukwenza igrafu yesithombe yekilasi kabili ngonyaka(kanye ngethemu1 nethemu 3)Ukusebenza ndawonye njengekilasi kusiza abafundi bambandakanye kuzozonke izigaba ngaphandle kokulahlekelwa esinye isigaba.isib.dweba zonke izithombe.Benza igrafu yekilasi ezokwenza uthisha akwazi ukubamba abafundi banakisise ukuze babheke ukuqokelela kolwazi kulokho abafuna ukukwazi ngezimpawu ezisemqoka zegrafu yesithombe. Izimpawu zegrafu yesithombe abafundi okumele bazifundiswe: • igrafu ilebulwa kuphi nakanjani (isihloko segrafu) • imikhakha ibebulwa kuphi nakanjani. • igrafu yesithombe idinga ube nendlela yokuchaza isithombe ngasinye sisho ukuthiniThe • izithombe noma izikhala zazo kumele zibe nobungako obulinganayo • zibekwa kanjani izithombe ziqonde emgqeniHow • ifundwa kanjani igrafu	

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5.4 Ukuqoqa nokuhlele ulwazi			Abafundi bayadinga ukwazi ubumqoka bokuqala ngokufunda isihloko, ukuze bakwazi ukuthi igrafu ikhuluma ngani. Bayadinga ukwazi ukufunda amagama asuka phansi uye phezulu nalawo asuka kwesokudla kuya kwesokunxele. Abafundi abadingi ukwazi ulimi olunobuchwepheshe oluthile ukuze alusebenzise ukuchaza izingxenye zegrafu, kuphela uma bezofunda ngaphansi nasemaceleni ukuthola ukuthi igrafu ikhuluma ngani. Uma sifunda siqala kwesokunxele siya kwesokudla, kodwa uma abafundi befunda igrafu bayifunda kusuka phansi kuya phezulu.Lokhu kudinga abafundi bachazelwe.Abafundi kumele bawenze lamakhono. **Khetha isihloko ubuye ubabuze imibuzo ngokuqokelela ulwazi** EBangeni 2 kumele babuzwe lemibuzo, isib. Yiziphi izinhlelo zeTV enizikhonzile? Othisha balelozinga kumele baqikelele ukuthi akufundiswe izihloko ezahlukene ezikhethiwe ukuze ulwazi oluqoqiwe luhlaziwe kulelo nalelobanga. Izihloko ezifanele kumele zifake ezemidlalo iziphuzo engizithandayo,imibala engiyithandayo,izinkathi ezedlule,ukudla engikuthandayo,izinhlelo zeTV engizithandayo njll **Ukuhlela imikhakha yokuqoqa ulwazi** Nika abafundi uhlelo lwemikhakha lapho bezokhetha khona. **Ukubhala okumele ulwazi** Abafundi abathole iphepha elinobungako obufanayo lapho bezodweba noma babhale izimpendulo khona. Imidwebo kumele ihlelwe ngemigqa lapho bezodweba khona igrafu yezithombe. izihloko ziyengezwa ezimpambanweni negrafu. **Ukuhlaziya nokuhumushe ulwazi** Abafundi baphendula imibuzo leyo ebuziwe ngegrafu yezithombe isib. Yiziphi izinhlelo ezaziwayo zeTV ekilasini lakho.? Yiziphi izinhlelo abafundi abambalwa abazithandayo ekilasini lakho? Abafundi abaningi bathanda...noma...? Baningi bangakanani abathanda...ne...?	3 lessons
5.5 ukubhala okumele ulwazi	**ukubhala okumele ulwazi** Bhala okumele ulwazi ngegrafu yezithombe			
5.6 Ukuhlaziya nokuhumusha ulwazi	**Ukuhlaziya nokuhumusha ulwazi** Phendula imibuzo ngolwazi ngegrafu yezithombe			

ITHEMU YESI - 2 YEBANGA LESI-2 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANE BEZINOMBOLO				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO** **OKUGXILWA KUKHO NGETHEMU YE - 2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ihora nemizuzu enga - 24 isifundo)
1.1 **Bala izinto**	**Ukubala izinto eziphathekayo** Hlawumbisela ubuye ubale ufinyelele okungenani ema - 200 izinto zansukuzonke ngokwethembeka. Aligqugquzelwe isu lokusebenza ngamaqoqo	Bala okungenani ufinyelele e- 150 ngokwethembeka nsukuzonke. Nikeza ngokuhlawumbisela inani lezinto ezingahlolwa ngokubala.	**Yini okwehlukile kunakuThemu 1?** NgeThemu lesi - 2 uhla lwezinombolo seluthe ukuthuthuka nabafundi sebebala izinto eziyi - 150. Ngenxa yokuthi lena inombolo enkulu ukuyibala, kufanele kugxilwe ekubaleni ngamaqembu. Leli yikhono abafundi abalenze kusukela eBangeni loku - 1, manje osekufanele basisebenzise kwizinga eliphakeme lohla lwezinombolo. Kubalulekile ukuthi kuphela iThemu abafundi babe sebelibonile iqoqo lezinto eziyi - 150 bangenza isiphakamiso sendlela yokubala ebasizayo. Ukubalwa kwezinto kuleThemu kusekela: • Ikhono lokubala elidingekayo ukuqonda ubungako benombolo; • Ukubala bephimisela; • Ukushiwo kwamagama ezinombolo; • Ukubona izimpawu zezinombolo; • Ikhono lokubala elidingekayo ekubaleni **Izinsizakufundisa:** Kufanele kubhekelelwe izinhlobo zezizinsiza ezisetshenzisiwe. • Izinsiza ezihleliwe, njengobuhlalu bokubala obusentanjeni • I-abhakhasi ukuzilungiselela ukubala ngamaqembu • Inyanda yoku - 2, inyanda yoku - 5 kanye nenyanda yokuyi - 10 bese kuy-abalwa konke. • Amabhuloki • Imali yokudlala	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.2 **Bala uyephambili abuye uye emuva**	Bala uye phambili ubuye uye emuva ngo: • Nakunye kunoma iyiphi inombolo ephakathi kwe - 0 kuya ema - 200 • Ngokuyi - 10 okuphakathi kwe - 0 kuya ema - 200 • Ngokuyisi - 5 okuphakathi kwe - 0 kuya ema - 200 • Ngaku - 2 phakathi koku - 0 kuya ema - 200 • Ngaku - 3 phakathi koku - 0 kuya ema - 200 • Ngaku - 4 phakathi koku - 0 kuya - 200	Bala uye phambili ubuye uye emuva ngo: • Nakunye kunoma iyiphi inombolo ephakathi kwe - 0 kuya ema - 150 • Ngokuyi - 10 okuphakathi kwe - 0 kuya ema - 150 • Ngokuyisi - 5 okuphakathi kwe - 0 kuya ema - 150 • Ngaku - 2 phakathi koku - 0 kuya ema - 150 • Ngaku - 3 phakathi koku - 0 kuya ema - 99 • Ngaku - 4 phakathi koku - 100	**Yikuphi okwahlukile kusukela kwiThemi - 1** NgeThemu yesi - 2 uhla lokubala izinombolo seluthe ukuthi xaxa nabafundi baqala ukubala ngakuthathu nangakune okokuqala. Ngokuphela kweThemu abafundi kufanele babe bekwazi ukuphendula imibuzo efana nale: • Qala e - 132, bala uye phambili ngakunye uze ufinyelele e - 150. • Qala e - 120 ubale uye emuva ngakunye uze ufinyelele ema - 98. • Qala ema - 60 ubale ngakubili uze ufinyelele e - 100. • Qala e - 100 ubale ngakubili uze ufinyelele e - 138. • Qala koku - 3 ubale ngakuthathu uze ufinyelele ema - 30. • Qala ema - 60, ubale uye emuva ngakuthathu uze ufinyelele ema - 42. • Qala kokune ubale ngakune uze ufinyelele ema - 40. • Qala ema - 84 ubale uye emuva ngakune uze ufinyelele ema - 68. • Qala ema - 45 ubale ngakuhlanu uze ufinyelele e - 100. • Qala e - 100 ubale uya emuva ngamashumi ngamashumi uze ufinyelele eshumini. Abafundi kufanele babale beya emuva ukusukela kunoma iyiphi inombolo.	

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1.3 **Uphawu lwezinombolo kanye namagama ezinombolo**	**Bona, ufunde izinombolo** • Bona ufunde izimpawu zezinombolo eziphakathi kwe - nama - 200. • Bhala izimpawu zezinombolo eziphakathi 0 - 200 • Bona ufunde amagama ezinombolo eziphakathi 0 - 100 • Bhala amagama ezinombolo phakathi 0 - 100.	**Bona ufunde izinombolo** • Bona ufunde izimpawu zezinombolo eziphakathi 0 - 150. • Bhala izimpawu zezinombolo eziphakathi 0 -150. • Bona ufunde amagama ezinombolo eziphakathi 0 - 50. • Bhala amagama ezinombolo aphakathi 0 - 50.	**Yini eyahlukile ukusukela eThemu loku - 1?** Abafundi bayqhubeka bafunde babuye babhale izimpawu izimpawu zezinombolo ngokhla lwezinombolo oluthe thuthu. Abafundi bazobe bebona, befunda, bebhala izimpawu ezingaphezu kwekhulu babuye babhale amagama ezinombolo kuze kufinyelele ema - 50. Kufanele kuqashelwe uma kukhulunywa ngezinombolo ezinamadijithi amathathu, njengokuthi: amakhulu amathathu namashumi amabili nantathu. Uma sibhala izinombolo ezinamadijithi amathathu eziphakathi kwekhulu nekhulu neshumi, idijitji emele amashumi u - 1. Abanye abafundi baba nobunzima ukubhala lezizinombolo benikezwe izimpawu ezingamagama. Isib. Ukubhala - 102 kungaba nzima kwabanye abafundi, bangabhala - 1002. Amakhadi amele isikhundla senombolo ayabasiza abafundi ukuqonda ukuthi ungazisebenzisa kanjani izikhundla zezinombolo. Abafundi kufanele babuye banikezwe ithuba elanele loubhala lezizinombolo. Izibonelo zokubhalwe phansi: • Bhala izimpawu zezinombolo. Ikhulu namashumi amathathu nantathu Ikhulu nashumi amne nesikhombisa • Qondanisa amagama ezinombolo nezimpawu zakhona • Qedela uhla lwezinombolo • Qedela umugqa wezinombolo nokulandelana kwazo	

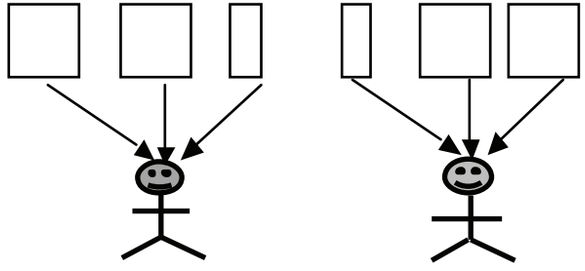
IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.4 **Chaza, qhathanisa ubuye ubhale izinombolo**	**Chaza, qhathanisa,uhlele izinombolo kuze kufinyelele ema - 99** • Chaza uqhathanise izinombolo ezigcwele kuze kufinyelele ema - 99 usebenzisa okuncane kune-, okungaphezulu kwe-, okungaphansi kwe-, okulingana ne-. • **Chaza uhlele izinombolo eziphelele** Kusukela kwencane kuya kwenkulu, kusukela kwenkulu kuya kwencane **Sebenzisa izinombolo zesikhundla ukukhombisa ukuhleleka, indawo nesikhundla** Isikhundla sezinto ezisemgqeni ngokulandelana kwazo kusukela kowokuqala, owesibili, owesithathu, owesine, owesihlanu, njll.	**Chaza, qhathanisa uhlele izinombolo uze ufinyelele ema - 50** • Chaza uuqhathanise izinombolo eziphelele usebenzisa okuncane kune-, okukhulu kune-, okungaphezulu kune-, okulinganayo • **Chaza uhlele izinombolo eziphelele** Kusukela kwencane kuya kwenkulu, kusukela kwenkulu kuya kwencane **Sebenzisa izinombolo zesikhundla ukuhombisa ukuhleleka kwezinombolo, indawo nesikhundla sazo** Beka izinto ezisemgqeni ngezikhundla zazo kusukela kweyokuqala kuya kweyeshumi nanhlanu, kanje: okokuqala, okwesibili, njll.	**Yini eyahlukile ukusukela eThemu loku - 1?** NgaleThemu abafundi bayaqhubeka bahlele baqhathanise izinombolo. Umugqa wezinombolo uhlala uyisithombe esibalulekile esilusizo ekuhloleni izikhundla zezinombolo ngokuhlobana nezinye iznombolo. **Imisebenzi yokuzimela eyengeziwe:** Babhala ngokuphindaphinda izinombolo ngokwezikhundla zazo. Bhala phansi lokhu okulandelayo ekilasini encwadini yakho yokusebenzela: • Iyiphi inombolo eza ngaphambi kwama - 46? • Iyiphi inombolo eza ngemuva kwama - 48? • Iziphi izinombolo eziphakathi kwalezi - 45 no 47? • Sebenzisa umugqa wezinombolo onikezwe wona uqedela ngezinombolo ezishodayo. • Bhala okukodwa ngaphezulu kwenombolo ngayinye: - Okukodwa ngaphezulu kwama - 23 ___ - Okukodwa ngaphezulu kwama - 29 ___ - Okukodwa ngaphezulu kwama - 42 ___ • Bhala okukodwa ngaphezulu kwenombolo ngayinye: - Okukodwa ngaphansi kwama - 20 ___ - Okukodwa ngaphansi kwama - 31 ___ - Okukodwa ngaphansi kwama - 42 ___ • Bhala okuyishumi ngaphezulu kwenombolo ngayinye: - Okuyishumi ngaphezu kwama - 20 ___ - Okuyishumi ngaphezu kwama - 30 ___ • Bhala okuyishumi ngaphansi kulezizinombolo ezilandelayo - Bhala okuyishumi okungaphansi kwama - 50 ____ - Bhala okuyishumi okungaphansi kwama - 40 ____ • Bhala lezizinombolo uzihlele kusukela kwenkulu kuya kwencane. (130, 133, 123, 143, 103, 113) • Qedela lomusho. Gcwalisa ngokuningi nokuncane: - Ama - 26 ma _____ kunama - 24 - Ama - 36 ma _____ kunama - 19	

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1.5 **Ubungako benombolo**	**Bona ubungako benombolo okungenani inombolo enamadijithi amabili kuze kufinyelele ema - 99** • Bona ukuthi idijithi ngayinye imeleni • Hlakaza inombolo enamadijithi amabili anamashumi nemivo (TU) • Bheka usho ubungako bedjithi ngayinye	**Bona ubungako benombolo okungenani inombolo enamadijithi amabili kuze kufinyelele ema - 50** • Bona ukuthi idijithi ngayinye imeleni • Hlakaza inombolo enamadijithi amabili anamashumi nemivo (TU) • Bheka usho ubungako bedjithi ngayinye	**Yini eyahlukile ukusukela eThemu loku - 1?** NgaleThemu uhla lwezinombolo luyakhula lusuke ema - 25 kuya ema - 50. Abafundi manje basebensiza ulwazi nomqondo wobungako bezinombolo ukuya kwizinga eliphezulu lohla lwezinombolo. ngaleThemu abafundi bayaqhubeka uku: • Bala ubuye uhlele ngamaqoqo ukhombise amashumi nemivo ngezindlela ezahlukene • Bala izinto ezingamaqoqo ezihleliiwe • Sebenzisa amakhadi obungako benombolo ukukhombisa inombolo ekwiqoqo naleyo ebaliwe, isib. ama - 35 angakhonjiswa ngezinto ezingama - 35 ezih-lukene, ngamashumi (3 tens) nokuyisihlanu okwahlukene kubekwe ngakunye, amaqoqo amashumi • Shono ubungako bedijithi ngayinye. Lomsebenzi ongenhla wenziwa emaqenjini okugxilwa kuwona, ngesikhathi esikhululekile abafundi bangabhala lokhu okulandelayo: 48 = namaqembu a - 4 awamashumi kanye nesi - 8 sokuhlukene 48 = 40 kanye nesi - 8 Lokhu kwelekelelwa ukusetshenziswa kwaflathi khadi. **Ubungako bamadijithi** Abafundi kufanele baqale basho ukuthi idijithi ngayinye imeleni. Buza abafundi: • Iyiphi inombolo emelwe yi - 7 ku - 27? • Iyiphi inombolo emelwe o- 4 ku - 49? Abafundi kufanele basebenzise amakhadi obungako benombolo ukufakazela izitatimende zabo.	

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UKUXAZULULWA KWEZINKINGA ZESIMO ESEJWAYELEKILE				
1.6 **Amaqhinga okuxazulula izinkinga**	Sebenzisa lamaqhinga alandelayo uma uxazulula izinkinga ubuye uchaze uchaze izixazululo zezinkinga: • Imidwebo nezinto eziphathekayo isib. izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngoklinganayo • Umugqa wezinombolo	Sebenzisa lamaqhinga alandelayo uma uxazulula izinkinga ubuye uchaze uchaze izixazululo zezinkinga: • Imidwebo nezinto eziphathekayo isib. izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngoklinganayo • Umugqa wezinombolo	Kulindeleke ukuthi abafundi baxazulule izinkinga besebenzisa lamaqhinga alandelayo: • Imidwebo noma izinto eziphathekayo, isib. izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo **Imidwebo noma izinto eziphathekayo** Abafundi bazoqhubeka nokudweba izithombe nokusebenzisa izinto eziphathekayo ukuxazulula izinkinga. Ukudweba izinto kusukela kwezingama - 30 noma kwezingama - 50 ngamunye kufanele kungagqugquzelwa. Gqugquzela abafundi ukuthi bafake izimpawu zezinombolo uma bebhala phansi kufaka nalokho okumele izithombe. Abafundi bangabuye bagqugquzelwe ukuthi babhale umusho wezinombolo. Bheka amanothi Themu yoku - 1	
1.7 **Ukuhlanganisa nokususa**	Xazulula izibalo zenxoxo ngokwe simo esejwayelekile ubuye uchaze izixazululo zezinkinga kufaka ukuhlanganisa, ukususa, kanye nezinmpendulo kufinyelela ema - 99.	Xazulula izibalo zenxoxo ngokwe simo esejwayelekile ubuye uchaze izixazululo zezinkinga kufaka ukuhlanganisa, ukususa, kanye nezinmpendulo kufinyelela ema - 50.	**Yini okwehlukile kuThemu loku - 1** NgaleThemu abfundi bayaqhubeka benze ngokuphindaphinda izinkinga zezibalo zamagama babuye basebenzise lamaqhinga alandelayo uma bexazulula izinkinga: • Imidwebo noma nezinto eziphathekayo • Ukwakha nokuhlakazwa kwezinombonolo • Ukuphindaphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo **Imidwebo noma izinto eziphathekayo** Abafundi bazoqhubeka nokudweba izithombe nokusebenzisa izinto eziphathekayo ukuxazulula izinkinga. Ukudweba izinto kusukela kwezingama - 30 noma kwezingama - 50 ngamunye kufanele kungagqugquzelwa. Gqugquzela abafundi ukuthi bafake izimpawu zezinombolo uma bebhala phansi kufaka nalokho okumele izithombe. Abafundi bangabuye bagqugquzelwe ukuthi babhale umusho wezinombolo. Bheka amanothi aeThemu yoku - 2	

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1.8 **Ukuhlanganisa okuziphindaphin-dayo okuholela ekuphindaphindeni**	Xazulula izinkinga zezibalo ezisesimweni esjwayelekile ubuye uchaze izixazululo zakho ezinkingeni usebenzisa ukuhlanganisa ngokuphindelela noma ukuphindaphinda kanye nezimpendulo ezifinyelela ema - 50.	Xazulula izinkinga zezibalo ezisesimweni esjwayelekile ubuye uchaze izixazululo zakho ezinkingeni usebenzisa ukuhlanganisa ngokuphindelela noma ukuphindaphinda kanye nezimpendulo ezifinyelela ema - 30.	**Yini eyahlukile eThemu yoku - 1** Uhla lwezinombolo selukhulile lwafinyelela ema - 30. Abafundi kufanele bagqugquzelwe ukubhala umusho wezinombolo kuzona zonke izinkinga zezibalo ezibhalwayo. Kulindeleke ukuthi abafundi basebenzise ukuhlanganisa ngokuphindelela emgqeni wezinombolo ukukhombisa izixazululo. NgaleThemu abafundi kufanele babhale umugqa wokuphindaphinda wezinombolo wezimpendulo zabo. Abafundi sebelwenzile uphawu lokuphindaphinda eThemu yoku - 1 kufanele basebenzise ulwazi lwangaphambili uma bexazulula izinkinga zokuphindaphinda izinkinga zezinombolo. Ukuhlanganisa ngokuphindelela kanye nenhlobo yegridi, izinkinga kufanele zikhombise umusho wezinombolo. Kunabanye abafundi asebenokuzethemba okukhulu ekubhaleni phansi imiphumela kusetshenziswa ukuhlanganisa ngokuphindelela kodwa hhayi ukuphindaphinda. **Izibonelo zezinkinga ezingenziwa kuleThemba** Ukuhlanganisa ngokuphindelela a) Mangaki amasondo asemabhayisikilini ayisi - 8? b) Mangaki amehlo ezinganeni eziyi - 9? **Izinga** UThami uphuza izingilazi eziyisi - 6 zamanzi ngosuku. Zingaki izingilazi zamanzi aziphuzayo ngesonto? **Igridi /ukuhleleka (array)** Umnumzane uKhumalo utshale imigqa yamakhabishi eyisi - 6. Kunezihlahla ezi - 5 umugqa ngamunye. Mangaki amakhabishi atshalwe uKhumalo eswonke?	

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1.9 **Ukwenza amaqoqo nokuhlukanisa okuholela ekwehlukaniseni**	Uxazulula achaze izixazululo ezifaka ukuhlukaniselana ngokulinganayo nokwenza amaqoqo kuze kufinyelele ema - 99 kanye nezimpendulo ezifaka izinsalela.	Uxazulula achaze izixazululo ezifaka ukuhlukaniselana ngokulinganayo nokwenza amaqoqo kuze kufinyelele ema - 50 kanye nezimpendulo ezifaka izinsalela.	**Izibonelo zezinkinga ezingenziwa kuleThemu** NgaleliThemu bavumele abafundi ukuthi ukuthi basebenzise imidwebo kanye nezinto eziphathekayo ukukhombisa izixazululo zabo. Umusho wezinombolo ungasetshenziswa. Umfundi angasebenzisa ukususa ngokuphindelela ukukhombisa ukuthi bafike kanjani kwimpendulo. **ukuhleleka (array) / igridi** UMongezi uqoqa izinto zokubala ezingama - 20 ngemigqa eyi - 10. Zingaki izinto zokubala umugqa ngamunye? **Ukwenza amaqoqo** *Ukwenza amaqoqo, ukulahlwa kwensalela* UPhilasande uthengisa amahhabhula asezikhwameni, isikhwama ngesinye sinamahhabhula ayisi - 6. Unamahhabhula angama - 40, zingaki izikhwama samahhabhula angazenza uma isikhwama ngasinye sifaka amahhabhula ayi - 6? *Ukwenza amaqoqo, ukuhlanganiswa kwensalela kwimpendulo* USimanga ufuna ukuthatha amaqanda angama - 35. Mangaki amabhokisi amaqanda azowadinga uma ibhokisi ngalinye lifaka amaqanda ayisithupha? **Ukwahlukanisa** *Ukwahlukanisa, nokulahlwa kwensalela* Hlukanisela izingane ezinengokulinganayo amaswidi angama - 45. UPhilasande noNothando basebenza ndawonye. UPhilasande usebenza amahora ama - 3, unoThando usebenze ihora elilodwa. Bakhokhelwe imali engangama - R40. Bazohlukaniselana kanjani lemali?	

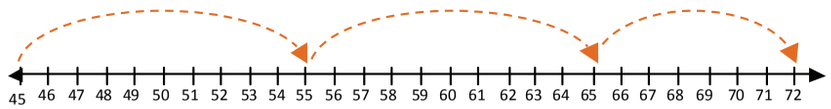
IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.10 **Ukwahlukanisa okuholela emaqhezwini**	Xazulula ubuye uchaze izixazululo ezinkingeni ezifaka ukuhlukaniselana ngokulinganayo okuholela kwizixazululo ezifaka iqhezu elilodwa kokuphelele, isib. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, njll.	Xazulula ubuye uchaze izixazululo ezinkingeni ezifaka ukuhlukaniselana ngokulinganayo okuholela kwizixazululo ezifaka iqhezu elilodwa kokuphelele, isib. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, njll.	**Yini eyahlukile kunaseBangeni loku - 1** Enye yezinhloso ekuthuthukisweni kwamaqhezu kufanele kube ukusiza abafundi ukwenza umqondo wezingxenye zamaqhezu okuphelele - izingxenye eziphumayo uma okugcwele kwehlukaniswa ngokulinganayo noma ngokwenelisayo. Abafundi babonakala bekuqonda ukwahlukanisa umthamo wezingxenye kabili nangaphezulu ngokulinganayo phakathi kwabafundi. Bagcina benza ukuxhumana phakathi kokuqonda phakathi kokuhlukanisa ngokwanelisayo izingxenye zamaqhezu. Imisebenzi eyahlukanisiwe iyindawo enhle ukuqala umqondo wamaqhezu. Inqubomgomo yethu ingenisa umqondo wokwahlukaniselana oholela ezingxenyeni zamaqhezu. Imisebenzi yokwahlukaniselana ivezwa ngokujwayelekile ngendlela elula yamagama. Uma kuqalwa abafundi benza imisebenzi yokwahlukaniselana, bathola ukwahlukanisa noma ukwahlukaniselana kushiya izinsalela. Babuye bahlukanise izinsalela futhi. ULimi lwamaqhezu lungethulwa - ke. Sebengabhala amagama amaqhezu, isib. Uhhafu oyedwa, ikota elilodwa, okukodwa kokuthathu. Uma kubhala ngezingxenye zamaqhezu, isib. Ohhafu abathathu, amakota amathathu, bhala lokhu njenganombolo nangamagama. U 3⁄2 noma 3⁄4 akachazi lutho futhi, ngakho ke kungcono ukuwayekelela izinga lamabanga amaphakathi ((Intermediate Phase). **Ukwahlukanisa** Kwizibonelo ezingezansi isimo sokwahlukanisa ngokulinganayo esinezinselela esingabuye sehlukaniselwane singasetshenziswa Izingane ezimbili zehlukaniselana oshokoledi abathathu ukuze umuntu ngayedwa athole okulinganayo. Angathola amangaki umuntu ngamunye? Abafundi bazonikeza umfundi ngamunye amabili bese kuthi amanye ahlukaniswe kabili. 	

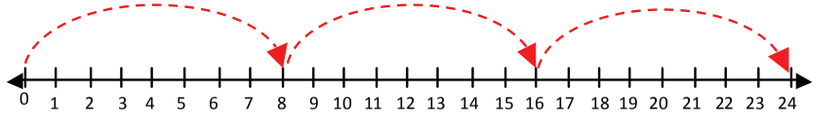
IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.10 **Ukwahlukanisa okuholela emaqhezwini**			**Izinsalela** Kubalulekile ukuthi abafundi badwebe izimpendulo zabo. Qala uvumele abafundi ukuthi bachaza ngamazwi abo ingxenye abayihlakazile. Lindela ukuthi uma abafundi besika izicucu ezisele, kunokwenzeka ukuthi lezocucu zingalingani. Lokhu akufanele kube nomthelela kwindlela okuchazwa indlela yokwahlukaninselana. Uma abafundi sebkwazi ukwahlukaniselana ngokwanelisayo, amagama amaqhezu anganikezwa izingxenye. Ukwedlula ezinkingeni zokuhlukanisa ezinezixazululo ezinezinsalela kwizixazululo zezinombolo eziphelele nezingxenye zamaqhezu. Lokhu kusho ukuthi abafundi kumele bakhonjiswe / baboniswe amaqhezu mbumbulonezinombolo ezixubene. Akulindelekile ukuthi abafundi bazi babuye basebenziseulwazimagama. Isib. okubili nohhafu kungabhalwa kanj: 2 ½, okuyinombolo exubile. **Ukuhlukanisa imisebenzi kanye noLimi lwamaqhezu** Ingxoxo yezixazululo zabafundi yisikhathi esihle sokubangenisa kulwazi magama lwezingxenye zamaqhezu. Uma ushokoledi uqheshulwe ngamaqhezu alinganayo, vele uthi “lokhu sikubiza ngamakota”. Ikhekhe lehlukaniswe izingxenye ezine. Zonke izingxenye zinobungako obulinganayo. Abafundi kumele bazi izingxenye ezimbili zamaqhezu: • Inani lezingxenye • Izinga lezingxenye. Ukuhlukaniswa kwemisebenzi kuyabasiza abafundi ukuthi bathuthukise lemiqondo elandelayo: • Uma sihlukanisa into izingxenye ezimbili ezilinganayo, lezozingxenye zibizwa ngokuthi ohhavu. • Uma sihlukanisa into ngezingxenye ezintathu ezilinganayo, lezingxenye zibizwa ngokuthi izingxenye zokuthathu. • Uma sihlukanisa into ngezinxenye ezine ezilinganayo, lezozingxenye zibizwa ngokuthi amakota. • Uma sihlukanisa into ngezinxenye ezinhlanu ezilinganayo, lezozingxenye sizibiza ngokuthi okuhlanu	

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1.10 **Ukwahlukanisa okuholela emaqhezwini**			Ukugxila kwezinkinga zamagama amaqhezu kuleThemu zivumela abafundi ukuthi ba-: • Bahlukanise babuye bahlele ngamaqembu izinto ngokulinganayo; • Basho izingxenye zamaqhezu; • Ukuthola amaqhezu okuphelele ezinto; kanye • Nokubona ukuthi iiqhezu liyingxenye yokuphelele. **Izibonele zezinkina ezifanele iThemu yesi - 2** • UThemba, uSimanga, kanye noNdalwenhle kufanele bahlukaniselane oshokoledi ababili ngokulinganayo. Umuntu emunye uzothola oshokoledi abangaki? Dweba isithombe ukukhombisa impendulo yakho. • UNothando, uNokwethanba, uNomfundo, kanye noNdaweni behlukaniselana amawolintshi amahlanu. Bangawahlukanisa kanjani ukuze bathole alinganayo? Dweba isithombe ukukhombisa impendulo yakho • UPhilasande noNomfundo bahlukaniselana ihhabhula. UNomfundouthi emunye kufanele athole uhhafu, ingabe uqinisile? Dweba isithombe ukukhombisa impendulo yakho. Kubalulekile ukthi uma abafundi bedweba izixazululo, bakwazi nokuchaza ukuthi bahlukaniselane kanjani. Qalangokusebenzisa uLimi labafundi olungahlelekile ukuchaza izingxeneye zamaqhezu. Uma sebzethemba futhi bewuqonda umqondo “wokuphelele nokuyimbijana” igama leqhezu lingangeniswa noma lingasetshenziswa.umuntu usengalibhala igama leqhezu, isib. uhhafu, ikota elilodwa, okukodwa kokuthathu. Uphawu lweqhezu alukafundiswa, ngenxa yokuthi uma sikhuluma ngo 1⁄5, kungakasho lutho futhi kungcono ukuyeka lokhu baze bakuthole emaBangeni alandelayo ngokuhamba kwesikhathi.	

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1.11 **Imali**	• Bona ubalule/ukhombe imali ewuhlweza yaseNingizimu Afrika 5c, 10c, 20c, 50c, R1, R2, R5, kanye nengamaphepha R10, R20, R50 • Xazulula izinkinga zemali kufaka nezamba noshintshi kufinyelela emalini engangamarandi angama - R99 kufinyelela ku - 90c	• Bona ubalule/ukhombe imali ewuhlweza yaseNingizimu Afrika 5c, 10c, 20c, 50c, R1, R2, R5, kanye nengamaphepha R10, R20, R50 • Xazulula izinkinga zemali kufaka nezamba kanye noshintshi ngemali ewuhleza nengamaphepha kufinyelela emalini engangama- 50c ornemali eyiphepha efinyelela emarandini angama - R50	**Yini eyahlukile kusukela kwiThemi yoku - 1** NgaleThemu abafundi benza bephindelela ukubona imali babuye bayihlakaze ibe yizingxenye ezincane. **Iziboneleo zezinkinga ezingenziwa kuleliThemu** • Ungakwazi ukuhlukanisa imali engango - 50c ngokulinganayo kubafundi amane? Chaza ukuthi kanjani. • UMthandazo usebenzise u - 50c ukuthenga uswidi obiza u - 10c.Bangaki oswidi abathengile? • USipho ukhokha u - R5 ukuya esikoleni ngetekisi ekuseni. Ukhokhe ngo R20. Malini ushintshi azowuthola? Malini azosala nayo uma esebuyela ekhaya? • UMondli ukhokhela itekisi uR5,50. Uzothola ushintshi wamalini uma ekhokha ngoR10? • UZandile ukhokhe uR38. Ubekade eno R50. Malini asele nayo?	

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ISIMO ESEJWAYEKILE - UKUBALA OKUKHULULEKILE				
1.12 **Amaqhinga**	Sebenzisa lamaqhinga alandelayo ukubala: Imidwebo noma izinto eziphathekayo, isib. izinto zokubala • Ukwakhiwa nokuhlakazwa kwezinombolo • Ukuphindaphinda kabili nokwehlukanisa kabili ngokulinganayo • Umugqa wezinombolo	Sebenzisa lamaqhinga alandelayo uma uxazulula izinkinga ubuye uchaze izixazululo ezinkingeni: • Imidwebo noma izinto eziphathekayo, isib. izinto zokubala • Ukwakhiwa nokuhlakazawa kwezinombolo • Ukuphindaphinda kabili nokwehlukanisa kabili ngokulinganayo • Umugqa wezinombolo	**Yini okwehlukile eThemu loku - 1** Kulindeleke ukuthi abafundi baxazulule ukubala okukhuluklekile kwizimo ezejwayelekile besebenzisa lamaqhinga alandelayo: • Ukwakhiwa nokuhlakazwa kwezinombolo • Ukuphindaphinda kabili nokwehlukanisa kabili ngokulinganayo • Umugqa wezinombolo **Imidwebo noma izinto eziphathekayo** Abafundi bazoqhubeka badwebe izithombe babuye basebenzise izinto eziphathekayo ukuxazulula izinkinga. Kubalulekile ukuthi izithombe noma imidwebo ibe nezinombolo kanye nemisho yezinombolo. **Ukwakha nokuhlakaza** Leli ngelinye lamaqhinga abalulekie kakhulu kwimfundo yeSisekelo (ibuye isetshenziswe kaningana kumaBanga amaphakathi) ukusebenzisa leliqhinga kuvumela abafundi ukuthi bahlakaze babuye bahlanganise izinombolo ukwenza ukubala kube lula. Kubalulekile ukuthi abafundi basebenzise ulwazi abanalo uma behlakaza izinombolo, isib. • Ukuhlakazwa kwenombolo kusetshenziswa ubungako benombolo; • Ukuhlakaza izinombolo kusetshenziswa iziphindaphindi zokuyishumi; kanye • Nokuhlakaza izinombolo zihambe ngambili isib. izinombolo ezihamba ngambili ema - 20 ziyaziwa kanti futhi zingahlakazwa ngezindlela ezahlukene. **Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo** Abafundi bakuthola kulula ukuphinda kabili, kodwa futhi kubalulekile ukubenza ukuthi bakwazi ukusebenzisa ulwazi labanalo lokuphinda kabili: • Sebenzisa ulwazi lokubona ukuphinda kabili ukuze babone izinombolo eziseduze kweziphindeke kabili **Ukuphinda kabili izinombolo eziseduze kweziphindeke kabili** 12 + 12 12 + 13 25 + 25 25 + 24	

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1.12 **Amaqhinga**			• Sebenzisa indlela yokuphinda kabili bese unxephezela ukwehlukana kwazo, isib. 13 + 14 = phinda kabili u - 13 uhlanganise nokukodwa Leliqhinga linobucayi obuthile futhi lifuna ukuthi umfundi abe nolwazi lwezinombolo olusezingeni eliphezulu. Abafundi akakwazi ukuzikhethela leliqhinga kusho ukuthi bayakwazi ukusebenzisa amaqhinga amaningi ngokuwashintshashintsha. **Isibonelo:** Ngelinye ilanga ekliniki abantwana abangama - 24 banikezwa umjovo womkhuhlane. Ngelanga elilandelayo abanye abangama - 25 bajova. Bangaki abantwana abajova sebebonke? Inking ingaxazululwa ngokusebenzisa ukuphinda kabili. Umfundi angasho ukuthi phinda u - 24 kabili uhlanganise nokukodwa noma phinda u - 25 kabili ususe okukodwa. **Umugqa wezinombolo** Ukusebenzisa umugqa wezinombolo ukusiza abafundi ngokubala kuzobanikeza indlela yokubhala phansi abakucabangayo babuye bakulandele futhi. Ibuye isize abafundi ukuthi babe nomfanekiso wokubhala phansi abangawusebenzisa ukuchaza ukuthi bazixazulule kanjani izinkinga. Abafundi bebesebenzisa umugqa wezinombolo kusukela eBangeni loku - 1. Kulindeleke ukuthi manje bebe bekwazi ukwakha umugqa wezinombolo ongenalutho lapho bezokwazi khona ukufaka inombolo yokuqala bese bebona ukuthi baqhubeka kanjani nokufaka ezinye izinombolo. Isibonelo esikhombisa ukuthi abafundi banngawusebenzisa kanjani umugqa wezinombolo: • **Ukuhlanganisa nokususa** Abafundi kufanele bakhe eyabo imigqa yezinombolo babuye bahlakaze izinombolo ngezingxenye eziphathekayo noma ezisebenzisekayo. Isibonelo: 45 + 27  	

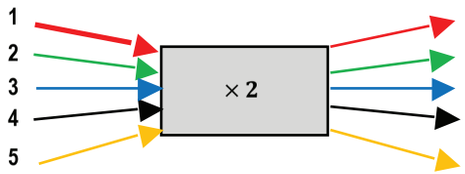
IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.12 **Amaqhinga**			• **Ukuphindaphinda** Umugqa wezinombolo kufanele uqhubeke usetshenziswe ukwelekelela ekuhlanganiseni ngokuphindelela. Amagxathu alinganayo angabhalwa phansi emgqeni wezinombolo kanye nemisho eyelekelelayo nayo ingabhalwa futhi. isibonelo:  8 + 8 + 8 = 24 3 ukukheleza oku - 8 kwenza ama - 24 3 amaqoqo oku - 8 = 24 3 x 8 = 24 Ekuphindahindeni okunikeziwe abafundi kufanele bakwazi ukuchaza ukuthi angenziwa kanjani amagxathu emgqeni wezinombolo.	
1.13 **Ukuhlanganisa nokususa**	• Hlanganisa uze ufinyelele ema - 99 • Susa kuze kufinyelele ema - 99 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Sebenzisa ngokuphindelela amabhondi ezinombolo kuze kufinyelele ema - 20	• Hlanganisa kufinyelele ema - 50 • Susa ema - 50 • Sebenzisa izimpwu ezifanele (+, –, =, ☐) • Sebenzisa ngokuphindelela amabhondi ezinombolo kufinyelela e - 15	**Yini eyahlukile eThemu yoku - 1?** Abafundi beBanga lesi - 2 bazoqhubeka basebenzise izinto eziphathekayo neminye imifanekiso ukusiza ekwakheni umqondo wezinombolo nasekubaleni. Ukusebenza kwalemifanekiso kuzoya ngokuya kube lukhuni ngokuhamba kwesikhathi. Uma kuphela unyaka eBangeni lesi - 3, abafundi kufanele bekwazi ukubala kuze kufinyelele kwizinombolo ezinamadijitji amathathu ngaphandle kokusebenzisa izinto zokubala eziphathekayo. Abafundi bebanga lesi - 2 bayaqhubeka basebenzise babuye bapholishe amaqhinga abo okubala. Badinga ukusizwa ukuqinisekisa ukuthi lokho abakubhala phansi kuhamba ngokohlelo ukuze bakwazi ukukufunda nabanye abafundi bakwazi ukukufunda. Ibanga lesi - 2 lizosebenzisa izindlela ezahlukene zokubhala phansi babuye babe nokuzethemba ekusebenziseni izinombolo nezimpawu njengendlela yokubhala phansi. Abafundi kufanele bakwazi “ukucabanga” ngombuzo obuziwe babuye babheke inking yohla lwezinombolo ukuze bacabange iqhinga elingcono. Ngokuxazulula izinkinga abafundi kufanele baqale ukuthuthukisa amaqhinga abo okubala nendlela yokubhala phansi. EBangeni lesi - 2 bazokuthuthukisa lokho. ngaleThemu, kufanele babe nokuzethemba ngendlela yokubhala phansi abyisebenzisayo babuye bachaze ukuthi bafike kanjani kwimpendulo.	

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1.13 **Ukuhlanganisa nokususa**			Abafundi kufanele bakwazi ukwenza lokhu okulandelayo ngokuhlanganisa nokususa: Nakuba abafundi besebenzisa izinto zokbala eziphathekayo nemifanekiso ukwelekelela ukubala kwabo, uma kufika ekusebenzeni ngezinombolo, kufanele bakwazi ukubala ngendlela esezingeni eliphezulu. NgaleThemu abafundi kufanele baqhubeke babale ngokuphindaphinda imibuzo ngezindlela ezahlukene ukuze bakwazi ukusebenzisa izinombolo eziseduze kweziphindeke kabili njengeqhinga lokubala. Isibonelo: Phinda ama - 20 kabili. Kubhale lokhu njengomusho wezinombolo Kopisha uqedele: • 12 + 12 = ☐ • 14 + 14 = ☐ • 15 + ☐ = 30 • 16 + ☐ = 32 • 17 + 17 = ☐ • 36 = 18 + ☐ • 38 = ☐ + 19 Izindlela ezinga khombisa ukubala ngokhlangansia nokususa. **Ukuhlakaza inombolo ngezingxeneye ezincane ukwenza ukubala kube lula** **Ukusebenzisa ulwazi lobungako benomboloukuhlakaza izinombolo nga-mashumi nangemivo** *Ukuhlanganisa izinombolo ezinamadijithi amabili ngokuzihlakaza zombili* 23 + 36 = ☐ 23 + 36 = (20 + 3) + (30 + 6) = (20 + 30) + (3 + 6) = 50 + 9 = 59	

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1.13 **Ukuhlanganisa nokususa**			**Ukuhlanganisa ngokuhlakaza inombolo eyodwa** *Ukuhlanganisa izinombolo ezinamadijithi amabili ngokuhlakaza inombolo eyodwa* 23 + 36 = □ 23 + (30 + 6) 23 + 30 → 53 + 6 = 59 Abafundi bangahlakaza inombolo ngezindlela ezizokwenza kubelula ukusebenza kwabo. Lokho kusho ukuthi bazokwenza ngezindlela ezhlukene: 23 + 36 = □ 23 + (10 + 10 + 10 + 6) 23 + 10 → 33 + 10 → 43 + 10 → 53 + 6 = 59 **Ukususa** • Ukuhlakazwa kwezinombolo zombili 47 - 26 = □ 47 - 26 = (40 + 7) - (20 + 6) = (40 - 20) + (7 -6) = 20 + 1 = 21 42 - 26 = □ 42 - 26 (30 + 12) - (20 + 6) 30 - 20 = 10 12 - 6 = 6 10 + 6 = 16	

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1.13 **Ukuhlanganisa nokususa**			• Ukususa ngokuhlakaza inombolo eyodwa 47 - 26 = ☐ 47 - (20 + 6) 47 - 20=27 27 - 6 = 21 42 - 26 = ☐ (30 + 12) - 26 **30 - 26 = 4** 12 + 4 = 16 • Kulindele ukuthi abanye abafundi kungenzeka bahlakaze inombolo ngezindlela ezenza kube lula kubo ukubala: 47 - 26 = ☐ 47 - (10 + 10 + 6) 47 - 10 → 37 -10 → 27 - 6 = 21 **Ukusebenzisa ulwazi oluqoqiwe njengamaqhinga** Amaqhinga akhonjisiwe ngezansi avumela abafundi ukuthi bahlele ukubala kwabo nolwazi lwezinombolo. Ukwenza amaqhinga alandelayo azogqugquzela abafundi ukuthi bakhombise ubudlelwane phakathi kwezinombolo abuye afundise abafundi ukuthi bangasebenzisa ulwazi abaluqoqile ukubasiza uma bebala. **Ukubala uye phambili nokubala uye emuva** 48 - 39 = ☐ Ukubala ngakunye kusukela ema - 9 kuyiqhinga elifanele ngoba izinombolo zisondelene. **Bona izinombolo eziseduze kweziphindeke kabili** 24 + 25 chaza ukuthi u - 24 uphindeke kabili kwahlanganiswa nokukodwa noma u - 25 ususa okukodwa 24 + 24 + 1	

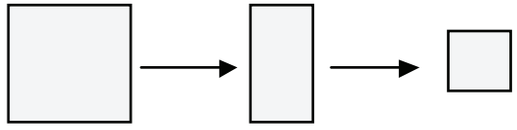
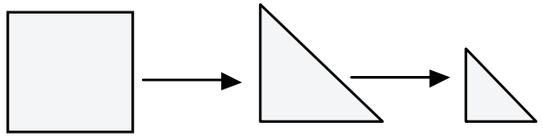
IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.13 **Ukuhlanganisa nokususa**			Abafundi bangabhala phansi amaqhinga besebnzisa imicibisholo 24 + (20 + 4) + 1 24 + 20 → 44 + 4 → 48 + 1 = 49 **Ukusebenzisa ukuhlukanisa kabili ukubhidliza inombolo** 29 + 12 29 + (6 + 6) 29 + 6 → 35 + 6 = 41 **Shintsha inmbolo ibe ibe yisiphindaphindi sokweshumi bese uyasusa noma uhlanganise ngokukodwa** Bala wenyuke noma wehle usondele eshumini 28 + 19 = □ Lapha abafundi kufanele bazitshele ukuthi bayakhetha phakathi kwezinto ezimbili. Ukushintsha ama - 28 noma i - 19 babe seduze kweshumi, bayazikhethela. Isibalo singabhalwa kanje: 28 + 19 = 28 + 20 - 1 28 + 20 → 48 - 1 = 47 Abanye abafundi bangabhidliza u - 20 abe ngamaqoqo amabili anezinto eziyishumi iqoqo ngalinye ukuze babale kahle. Kusiza abafundi ukuthi babe nesibindi nokuzimela ezibalweni uma benamaqhinga • Ukuhlola izixazululo zabo;kanye • Nokwahlulela izixazululo zabo ngendlela ezwakalayo.	

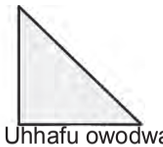
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<tr><th>IZIHLOKO</th><th>UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA</th><th>UMQONDO NAMAKHONO
OKUGXILWA KUKHO NGETHEMU YE - 2</th><th>AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI
(ihora nemizuzu enga - 24 isifundo)</th></tr>
<tr>
<td>1.14
Ukuhlanganisa ngokuphindaphin-da kuholela eku-phindaphindeni</td>
<td>• Phindaphinda izinombolo kusukela kweyodwa kufinyelela e - 10 ngo - 1, 2, 5, 3, 4
• Sebenzisa izimpawu ezifanele (+, x, =, ☐)</td>
<td>• Phindaphinda izinombolo kusukela kweyodwa kufinyelelle e - 10 ngo- 2, 5
• Sebenzisa izimpawu ezifanele (+, x, =, ☐)</td>
<td>
Yini eyahlukile eThemu lesi - 2?
NgeThemu yes - 2, abafundi benza ngokuphindelela nangokuqonda ukuphindaphinda. Phindaphinda okukodwa kufinyelela e - 10 ngoku - 5 kuyethulwa.
Ukwethulwa kokuphindaphinda ngoku - 5, bheka amanothi okuphindaphinda ngakubili eThemu yoku - 1
Ekupheleni kweThemu abafundi kufanele bakwazi ukubhala phansi lokhu okulandelayo:
1 iqoqo loku 5 ngu 5 noma 1kuphindwaphindwa ngaku - 2 kwenza - 2
Noma 1 x 2 = 4
2 iqoqo lokubili 2 nga - 4 noma 2 kuphindwa ngoku - 2 kwenza 4 2 x 2 = 4
3 iqoqo loku - 2 kukunikeza oku -6 3 uphindaphinda 2 kwenza oku - 6 noma 3 x 2 = 6
Akugxilwa ekukhumbuleni kwamathebula kodwa ekwakhiweni komqondo wokuphindaphinda. Abafundi babuye bafunde ukufunda baqonde nokuphindaphinda umusho wezinombolo.
Imifanekiso eminingi yokuphindaphinda kufanele ibekhona nokubhala okuningi kwenziwe encwadini yomsebenzi wasekilasini.
Isibonelo somsebenzi obhalwayo
Ukubhala phansi ngethebula:
<table>
<tr><td>Inombolo yezingane</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td></tr>
<tr><td>Inombolo yemilenze</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
Umfanekiso ogelezayo


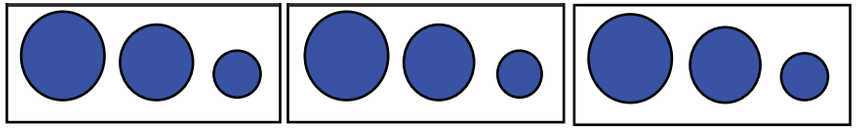
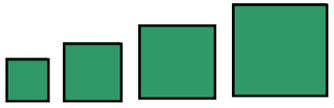
</td>
<td></td>
</tr>
</table>

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.14 **Ukuhlanganisa ngokuphindaphin-da kuholela eku-phindaphindeni**			Uma usebenza ngamaphethini ezinombolo, ukuphindaphinda kungahlanganiswa nokweqa ube ubala ngokuphenya amaphethini okuphindaphinda kwigridi yezinombolo. Isibonelo: abafundi bangabhala phansi okungakubili nokungakuhlanu kwigridi yezinombolo. Bankakhuluma ngokuthi yiziphi izinombolo ezisebenza kwithebula lokubili nelokuhlanu.	
1.16 **Izibalo zekhanda**	**Uhla lomqondo wezinombolo kufinyelela ema - 99:** • Hlela isethi yezinombolo ezikhethiwe • Qhathanisa izinombolo kufinyelela ema - 99 ubuye usho ukuthi iyiphi 1, 2, 3, 4, 5, nokuyi - 10 ngaphezulu nma ngaphansi **Khumbula ngokushehsa:** • Ukuhlanganisa nokususa kufinyelela ema - 20 • Hlanganisa noma usue iziphindaphindi zokwe - 10 kusukela e - 0 kufinyelela e - 100	**Uhla lomqondo wezinombolo: kufinyelela ema - 50** • Hlela isethi yezinombolo ezikhethiwe • Qhathanisa izinombolo kufinyelela e - 100 ubuye usho ukuthi iyiphi kulezi: 1, 2, 3, 4, 5, 10 ezingaphezulu nangaphansi **Khumbula ngokushehsa:** Khumbula ukuhlanganisa nokususa kufinyelela e - 10	**Umqondo wezinombolo:** Amaqhinga okubala, umqondo wezinombolo, ulwazi kanye namaphuzu ezinombolo aziwayo kuyathuthukiswa ngokubala nokuxazululwe izinking. Lokhu kwenziwa ngokuphindelela ngesikhathi sezibalo zekhanda. Lokhu kusiza abafundi ukuthi babenolwazi babuye bakwazi ukulusebenzisa kalula uma bebala noma bexazulula izinkinga zesimo esejwayelekile. **Izibonelo zemibuzo engahle ibuzwe**: **Amagama ezinombolo kanye nezimpawu** Phakamisa ikhadi noma ubhale phansi igama lezinombolo. Khetha umfundi ukuthi abhale izinombolo eziqondanayo. **Okungaphezulu noma ngaphansi** **Yini**? • Oku-1 okungaphansi kwama - 50 • Oku-1 okungaohezulu kwama - 39 • Oku-3 ngaphansi kwama - 27 • Oku-10 okungaphezu kwama - 20 Iluphi uhlamvu okungolwesi-5 ezinhlamvini zamagama? Iyiphi inyanga engeyesi-9 onyakeni? **Ngaphambili nangasemuva** Iziphi izinombolo eziza ngaphambi kwama - 37? Iyiphi inombolo eza ngemuva kwama - 39?	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.16 **Izibalo zekhanda**	**Amaqhinga okubala** Sebenzisa amaqhinga ukuhlanganisa ngendlela efanele: • Beka inombolo enkulu kuqala ukubala uyephambii nasemuva • Umugqa wezinombolo • Ukuphinda kabili nokwehlukanisa ngokulinganayo • Ukwakha nokubhidlizwa kwezinombolo • Sebenzisa ubu phakathi kokuhlanganisa nokususa	**Amasu engqondo** Sebenzisa amaqhinga ukuhlanganisa ngendlela efanele: • Beka inombolo enkulu kuqala ukubala uyephambii nasemuva • Umugqa wezinombolo • Ukuphinda kabili nokwehlukanisa ngokulinganayo • Ukwakha nokubhidlizwa kwezinombolo • Sebenzisa ubu phakathi kokuhlanganisa nokususa	**Ukuhlela nokuqhathanisa** Yikuphi okuningi: 21 noma 41? Ngiphe inombolo ephakathi kwama - 37 kanye nama - 39. **Amaphuzu okuhlanganisa nokususa:** Bona amanothi aeThemu yoku - 1 **Amaqhinga okubala:** Sebenzisa amaqhinga okubala ukuhlanganisa nokususa ngendlela. Hlanganisa izinombolo ngokusebenzisa amaqhinga afana nalokhu: • Buka izinombolo ezihamba ngambili ezenza ishumi bese usebenzisa lezi ezilandelayo kuqala: 2 + 7 + 8 2 + 8 kwenza I - 10 bese wengeza ngo - 7 Beka inombolo enkulu kuqala ukuze ubale uye emuva naphambili • Qala ngenombolo enkulu kakhulu 3 + 6 Phinda usho umusho wezinombolo: 6 + 3 ubuye ubale ufinyelele esi - 9 • Sebenzisa ukuphinda kabili njengesu lokubala ngekhanda Bona izinombolo eziseduze kweziphindene kabili. **Isibonelo:** 5 + 4 = 9 chaza ukuthi okune kuphindeke kabili wengeze ngokukodwa, noma okuhlanhu okuphindeke kabili ususe okukodwa Bona ukuthi uma izinombolo zisondelene ngokobungako bazo kulula ukthola umehluko ngokuthi ubaleuye phambili kunkuya emuva. 8 - 6 = 2 ubuye uchaze ukuthi ukubala kusukela kwisi - 6 kuya kwisi - 8 kukunika okubili. E izibalo zekhanda zingenziwa ngaphandle kwezinsiza kufunda, kodwa ijwale ukusetshenziswa ukwenza izibalo zekhanda kusetshenziswa izinsiza. Izinsiza ezinconyiwe • Umugqa wezinombolo (enesimo nengenzso) • Igridi yenombolo • Amakhadi obungako benombolo • Ubuhlalu bokubala	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
1.17 **Amaqhezu**	• Sebenzisa ubuye usho igama lamaqhezu afaka ohhafu, ikota, okuthathu, okuhlanu • Bona amaqhezu asesimweni esisamdwebo • Bhala amaqhezu ngohhafu owodwa, okubili kokuthathu	• Sebenzisa ubuye usho igama lamaqhezu afaka ohhafu, ikota, okuthathu, okuhlanu • Bona amaqhezu asesimweni esisamdwebo • Bhala amaqhezu ngohhafu owodwa, okubili kokuthathu	**leThemu igxila kulokhu:** NgaleThemu abafundi bafundiswa amaqhezu. Abafundi bazofundiswa amaqhezu ngokwehlukaniselana izinkinga zagama nemissebenzi. Umqondo wezingxenye zamaqhezu ubalulekeile ukuthi ithuthukise imisebenzi yokuhlanganisa. • Yenza uhhafu noma ikota lesimo ngokugoqa ubuye usike Abafundi bangagoqa iphepha libe uhhafu bese benikeza ingxenye ngayinye igama. Kubalulekile ukuthi baqonde ukuthi uma wenza izingxenye ezimbili ezilinganayo entweni. Bangabuye bagoqe futhi iphepha libe nguhhafu. Okubalulekile la ukugoqa ikhasi ngezindlela ezahlukene ukuthola izindlela ezahlukene zokubukeka kohhafu.  or  Buza njalo abafundi ukuthin zingaki izingcezu abazozithola ubuye ubavumele ukuqaq ikhasi bahlole. Qhathanisa izimo zohhafu ababili abehlukene noma izimo zamakota amabili kungaholela kwingxoxo emnandi ngezimo nangobungako. Ungababuza abafundi: Ngizibiza lezizimo ngegama lezinombolo elifanayo, uhhafu owodwa? 	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
			Ngikhombise ukuthi ngingazibiza lezimo ezimbili ngegama lezinombolo “ikota elilodwa”.   Abafundi kufanele basho ingxenye ngayinye, lokho kungenziwa ngokubhala amaqhezu. Isibonelo:  Ikota  Uhhafu owodwa • Ukuhlanganisa ukwenza okugcwele Abafundi abasebenzise izindilinga zamaqhezu noma izindilinga ezisikwe ephepheni ukuthola ukthi isimo sikahhafu nekota singahlanganiswa kanjani ukwenza okukodwa okugcwele. • Ukufaka umbala noma ukufaka umbala emaqhezwini Lezizinhlobo zemisebenzi zigqugquzela: • Ukwazi ukuthi amaqhezu izingxenye ezilinganayo; • Ukubona izingxenye zamaqhezu kanye nokuzisho. **Ukubhala amagama amaqhezu** **Asibangenisi abafundi ekubhaleni izimpawu zamaqhezu. Abafundi bafunda ukuthi balebula kanjani izingxenye zamaqhezu ngokubhala uhhafu owodwa noma ikota elilodwa.**	

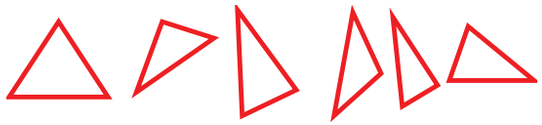
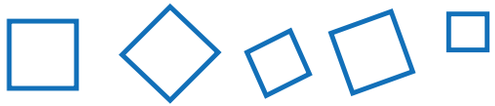
ITHEMU YESI- 2 YEBANGA LESI- 2 2. AMAPHETHINI, UBUDLELWANO, KANYE NE-ALJIBHRA				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
2.1 **Amaphethini ejiyometri**	**Kopela, uqhubeke uphinde uchaze** Kopela, uqhubeke uphinde uchaza ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo. • Amaphethini alula enziwe ngemidwebo yemigqa, izimo noma izinto **Ukwakha nokuchaza amaphethini akho** ukwakha nokuchaza amaphethini akho ejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto **Amaphethini asizungezile** Khomba, uchaza ngamagama ukopela amaphethini ejiyometri • kwimvelo • kusuka kwimpilo yesimanje, • kusuka emasikweni ayigugu	**Kopela, uqhubeke uphinde uchaze** Kopela, uqhubeke uphinde uchaza ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo. • Amaphethini alula enziwe ngemidwebo yemigqa, izimo noma izinto **Ukwakha nokuchaza amaphethini akho** ukwakha nokuchaza amaphethini akho ejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto	Bangeni 1 kanye naeThemu1 kwBanga 2 kwanconywa ukuthi abafundi basebenze ngamaphethini anezingxenye (izimo, imigqa noma izinto) eziphindaphindayo ngendlela efanayo. eThemu 2 yeBanga 2 abafundi bangaqala ukusebenza ngamaphethini lapho khona ubungakho besimo noma inombolo yesimo ishintsha ngendlela engaqageleka. Amanye amaphethini amaqoqo ezimo noma izinto ezifanayo aphindaphindayo, lapho ubungakho besimo kwiqoqo ngalinye lishintsha ngendlela ejwayelekile neqagelekayo.Isib.isimo siya ngokuba sincane.  Amanye amaphethini enziwe kusukela kuhlobo olulodwa lwesimo, kepha isibonelo ngasinye sesimo siyakhula nona siyehla ngokobungakho. **Isibonelo**  Amanye amaphethini enziwe ngamaqoqo lapho khona izimo zezinto ezingafani enzeka,kepha inombolo yenhlobo ngayinye yesimo noma into iyakhula noma iyehla ngendlela ejwayelekile.Isib.  Ukukopisha iphethini kusiza umfundi ukubona indlela iphethini eyenziwe ngayo. Ukuqhubeka nephethini kusiza abafundi ukubheka ukuthi bayiqonde ngendlela efanele indlela yokwenza yephethini. Ukuchaza iphethini kusiza abafundi ukuthuthukisa amakhono abo olimi nokukhuluma. Kuyakusiza ukubona indlela abafundi abawahumushe ngayo amaphethini.kuyane kube lula kubafundi ukukhuluma ngephethini uma sebeyenzile.ngalenkathi abafundi kufanele bakwazi ukuchaza iphethini ngaphandle kosizo lwemibuzo eholayo.qhubeka nokugxila ekuthuthukiseni ulimi abaludingayo ukuchaza amaphethini.	Isifundo esi-1

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
2.2 **Amaphethini ezinombolo**	**Kopela, uqhubeke uphinde uchaze** Kopela, uqhubeke uphinde uchaza izinombolo ezilula ngokulandelanisa okungenani ufike ku- 200 **Ukwakha nokuchaza amaphethini akho** Ukwakha awakho amaphethini ezinombolo	**Kopela, andisa bese uchaza.** Kopela andisa bese uchaza ukulandelana kwezinombolo ezilulakuya e 150. Ukulandelana kwezinombolo kufanele kukhombise ukubala uya phambili ubuye uhlehle kanje: • Ngakunye kusukela kunoma iyiphi inombolo ephakathi kuka -0 ne -150 • Ngokuyi -10 kusukela kunoma iyiphi inombolo ephindaphindayo nge-10 ephakathi 0 no -150 • Nokuyi - 5 kusukela kunoma iyiphi inombolo ephindaphindayo nga-5 ephakathi kuka 0 no 150 • Ngakubili kusukela kunoma iyiphi inombolo ephindaphindayo nga-2 ephakathi kuka 0 no-150 • Ngokuthathu nokune usukela kunoma iyiphi inombolo ephindaphindayo nga-3; 4 ephakathi kuka 0 kuya no- 150	Bheka amanothi eThemu 1, kepha ukhulise uhla lwezinombolo kufinyelele e-150	Izifundo ezi 3

ITHEMU YESI- 2 YEBANGA LESI-2 3. INDAWO NESIMO (IJIYOMETRI)				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
3.1 **Isikhundla, inkomba nokubukeka kwento**	**Amagama asho ukuthi into ikuphi** Chaza ukuthi into ikuphi uma uqhathanisa nenye. Isibinelo phezu kwe, phambili kwe, emuva kwe, kwesobunxele, kwesokudla, phezulu, phansi, eceleni. **Isikhundla nokubuka into** Qhathanisa ukubuka okuhlukene into efanayo nsukuzonke. **Isikhundla nezinkomba** Landela izinkomba unyakaza ekilasini.	**Amagama asho ukuthi into ikuphi** Chaza ukuthi into ikuphi uma uqhathanisa nenye. Isibinelo phezu kwe, phambili kwe, emuva kwe, kwesobunxele, kwesokudla, phezulu, phansi, eceleni. **Indawo nezinkomba** Landela izinkomba unyakaza ekilasini.	**Okunconyiwe okufanele kugxilwe kukho eThemu 2: ulimi lwendawo, ulandela izinkomba** Okugxilwa kukho eThemu 2 kungaba ukusho ukuthi into ikuphi.eThemu 3 abafundi bangasebenza ngokubuka izinto, qala ngokuhlola okwaziyo nobakukhumbulayo abafundi ngesikhundla nokubukeka kwento. **Yimuphi umehluko eBangeni 1** EBangeni 2 abafundi bahlanganisa umsebenzi abawenzile ngesikhundla nokusho ukuthi into ikuphi eBangeni 1. **Ulimi olusho isikhundla** Ulimi lwesikhundla lungethula baphindaphinde imisebenzi eyenziwayo efaka abafundi ngokunyakazisa imizimba, kufaka imilolozelo namaculo ayankazisayo nemidlalo enamagama eminyakazo.lokhu kungenziwa ngesikhathi sokufundiswa kwekilasi lonke noma ngesikhathi sokufundisa kugxilwe emaqoqweni. kuphakanyiswa ukuthi wenze izifundo ezimbili wenza imisebenzi ngesikhundla eThemu 2,kepha qhubeka wethule / ufundise bazilungiselele amagama akhuluma ngesikhundla kusetshenziswa izingxenye ezimfishane ekilasini.lolu limi lungasetshenziswa kwizifundo zolimi kanye nezamakhono empilo. Ulimi lwesikhundla lungahlanganiswa ngokwenza okubhalwayo njengo, ukufaka umbala noma ukuqondanisa imidwebo namagama, ukudweba into noma isimo uma utsheliwe isikhundla sayo uma uyiqhathanisa nenye into noma isikhundla. ukufaka umbala noma ukuqondanisa imidwebo namagama. **Isikhundla nezinkomba** Ukufundisa abafundi ukulandela izinkomba fanele kwenziwe ngokwenza lapho abafundi benyakaza belandela imiyalelo kathisha.eBangeni 2 abafundi banganikwa izinkomba ngokukhuluma noma ebhaliwe ukumyakaza ekilasini, Isib. “woza ngaphambili ekilasini”; “ ima eduze kwesihlalo sakho”; “gxuma weqe umgqomo wezibi”.	Izifundo ezi 2

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
3.2 **Izinto ezi-3-D**	**Uhla lwezinto eziphathekayo** Ukubona futhi asho amagama ezinto eziphathekayo ezi-3-D ezithombeni nezisekilasini. • okusabhola • okusabhokisi • amasilinda **Izimpawu zezinto** Chaza, hlela bese uqhathanisa izinto ezi-3-D ngoku:: • ubungako • izinto ezigingqikayol • izinto ezishibilikayo **Ukulandelana komsebenzi okuzogxilwa kowo kuthemu 1** Kopela isimo sento oyinikwe uthisha. Isimo sento singenziwa ngamabhuloki, izinto ongabuye uzisebenzise nokunye.		Akukho okuthize okugxilwa kuko kwizinto ezi-3-D nokunconyiwe eThemu 2, kepha umsebenzi ngezinto ezi-3-D ungahlanganiswa ngemisebenzi ebhalwayo. abafundi bangaqhubeka nokwakha izinto ezi-3-D besebenzisa izinto esezike zasebenza ngsikhathi sokusebenza esikhululekile.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
3.3 **Izimo-2-D**	**Uhla Lwezimo** Bona bese unika igama lezimo ezi-2-D • indlinga • unxantathu • isikwele • unxande **Izimpawu zezimo** Chaza, uhlele bese uqhathanisa izimo ezi-2-D ngokwe: • ubungako • umbala • ngokwesimo • izinhlangothi eziqondile • izinhlangothi eziyindilinga	**Uhla Lwezimo** Bona bese unika igama lezimo ezi-2-D • indlinga • unxantathu • isikwele • unxande **Izimpawu zezimo** Chaza, uhlele bese uqhathanisa izimo ezi-2-D ngokwe: • ubungako • umbala • ngokwesimo • izinhlangothi eziqondile • izinhlangothi eziyindilinga	**Yini okusha eBangeni 2** • unxande Omningi ngezimo eBangeni 2 bayenza ngokusebenza ngezinto eziphathekayo, yonke imisebenzi ingahlanganiswa ngemisebenzi ebhalwayo. Abafundi baqala ukudlala ngokukhululekile ngezimo ezihlukene kufaka izithombe ezisikiwe zezimo zejiyometri.ilokhu kungenziwa ngesikhathi esikhululekile, lokhu kungenziwa kwizifundo zamakhono empilo. Abafundi bakopisha izithombe ezenziwe ngezimo zejiyometri, lezi zithombe zinganikezwa uthisha noma ezincwadini, kusiza abafundi ukukwazi ukukhomba. • Izindilinga nezikwele zobungako obungafani; • Izikwele, onxande kanye nonxantathu kwizikhundla ezihlukene. and, • Onxantathu nonxande okunezimo ezihlukene, lokhu kungenziwa ngesikhathi esikhululekile nangesikhathi sezifundo zamakhono empilo. **Qhathanisa uchaze izimo ezinhlangothimbili: ubungako** Abafundi baqhathanisa ubungako bezimo ezifanayo Isib. • Uhlela izindilinga kusukela kokuncane kakhulu kuya kokukhulu kakhulu, • Beka zonke izikwele zobungakho okulinganayo ndawonye, Sebenzisa ulimi lobungakho ukuqhathanisa izimo ezihlukene Isib.“ ngidwebele unxantathu phakathi kwesikwele, unxantathu mncane kunesikwele.” **Ukuchaza izimo ezi-2-D: umbala** Abafundi bakhuluma ngemibala yezimo bahlele izimo ngokwemibala. Khomba usho izimo nemibala yazo; uqhathanise ubungako bezinto, lokhu kungaphindaphindwa uma kusetshenzwa ngamaphethini. **Ukubona nokusho izindilinga, onxantathu, izikwele kanye nonxande** Babfundi kufanele basebenze ngezindilinga nezikwele eziwubungako obehlukile kanye nonxantathu abanezimo ezehlukile. Kubalulekile ukuthi abafundi bangaboniswa isibonelo esisodwa sesimo ngasinye. izinsiza kufundisa eziningi ezithengiswayo zikhombisa uhlobo olulodwa lwesimo. abafundi kufanele bakwazi ukubona:	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
3.3 **Izimo-2-D**			• Onxantathu abayizimo ezihlukene kwizikhundla ezihlukene.lezi ezinye izibonelo zonxantathu:  • Izikwele eziwubungako obuhlukene kwizikhundla ezihlukene. Lezi ezinye izibonelo zezikwele:  • Onxande obayizimo ezihlukene kwizikhundla ezihlukene. Lezi ezinye izibonele zonxande:  • Izindilinga eziwubungako obuhlukene. Lezi ezinye izibonelo zezindilinga: noma Kuyabasiza abafundi ukusebenza ngezimo ezizinto esezisikiwe kusetshenziswa amakhalibhodi anemifanekiso ezimo.loku kuvumela abafundi ukubona onxantathu, izikwele, nonxande abahlukene kwizikhundla ezihlukene. Abafundi bahlela izimo ngokwezinhlangothi eziqondile noma eziyindilinga. Abafundi bahlela benze amaqoqo ezimo ngoko nxantathu, izikwele noma izindilinga. Kuhlanganiswa umsebenzi ngokwenza umsebenzi obhalwayo, lemisebenzi ingafaka ukufaka umbala, ukuqhathanisa amagama nezimo njll..	Izifundo ezi 3

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
3.4 **Okufana nse nxazombili**	**Okufana nse nxazombili** Bona bese udweba umugqa ohlukanisa kabili izimo ezinhlangothimbili.	**Okufana nse nxazombili** Bona bese udweba umugqa ohlukanisa kabili izimo ezinhlangothimbili.	Abafundi kufanele babuka umugqa ohlukanisa kufane nse nxazombili kwizinto eziphathekayo nezithombe. Imisebenzi ebhalwayo • Akungabi umyalelo othi “ dweba ingxenye esele’; kuphela. • Kufanele kubandakanye izibonelo lapho abafundi bedweba umugqa ohlukanisa okufana nse nxazombili.umugqa ohlukanisa okufana nse nxazombili akufanele uhlezi udweba umugqa oya eceleni noma osuka phezulu uye phansi. • Kufaka izibonelo lapho umugqa ohlukanisa okufana nse nxazombili ungaphezu kowodwa. Uma abafundi bengaqinisekile noma isithombe / isimo sinawo yini umugqa ohlukanisa okufana nse nxazombili, bangakuhlola ngokugoqa iphepha babuke noma ohhafu ababili baqondene nse, uma kuqondene nse la zihlangana khona umugqa wokufana nse nxazombili.	Isifundo esi 1

ITHEMU YESI-2 YEBANGA LESI- 2 ISILINGANISO				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
4.1 **Isikhathi**	**Ukufunda isikhathi** • Ukwazi izinsuku zeviki • Ukwazi izinyanga zonyaka • Faka izinsuku zokuzalwa, imigubho yokholo, izinsuku zokuphumula, izinsuku zezigameko zomlando, imicimbi yesikole kwikhalenda. • Ukufunda ngokusho isikhathi ngamahora nangesigamu sehora **Bala ubude besikhathi nokudlula kwesikhathi** • Sebenzisa ikhalenda ukubala uchaze ubude besikhathi ngezinsuku noma amasonto. • Sebenzisa iwashi ukubala ubude besikhathi ngamahora nesigamu sehora	**Ukufunda isikhathi** • Ukwazi izinsuku zeviki • Ukwazi izinyanga zonyaka • Faka izinsuku zokuzalwa, imigubho yokholo, izinsuku zokuphumula, izinsuku zezigameko zomlando, imicimbi yesikole kwikhalenda. • Ukufunda iwashi lezinti ngokusho isikhathi ngamahora nangesigamu sehora **Bala ubude besikhathi nokudlula kwesikhathi** • Sebenzisa iwashi ukubala ubude besikhathi ngamahora noma isigamu sehora.	Abafundi baqhubeka nokuzilungiselela bekhuluma ngobude besikhathi kanye nokulandelana kwesikhathi. Ngesikhathi sokufundiswa kwekilasi lonke nesokugxila emaqoqweni abafundi baqhubeka nokukhuluma ngezinsuku zeviki, izinyanga zonyaka kanye nosuku lwangalelolanga kanye nezinsuku ezandulelayo nezizolandela.abafundi bayalijwayela ikhalenda ngokulisebenzisa njalo ngokufaka lokhu: • Izinsuku zokuzalwa; • Imigubho yokholo; • Izinsuku zezigameko zomlando; • Imicimbi yesikole, kanye • Izinsuku zokuphumula Kwikhalenda. Ngesikhathi sokusebenza esikhululekile abafundi baqhubeka nokulandelelanisa izigameko ezenzeka nsuku zonke ezimpilweni zabo kanye nokulandelelanisa izithombe zezigameko.abafundi benza imisebenzi ehlobene nokusho isikhathi ngamahora. **Yini okwehlukile kuThemu 1?** eThemu 2 kugxilwa ekufundiseni isikhathi ngamahora kanye nesigamu sehora kusetshenziswa iwashi lezinti.lokhu kungaba isifundo okuzogxilwa kuso, kufanele kufake ukukhuluma ngaso besebenzisa isikhathi sasekuseni (a.m.) kanye nantambama (p.m.) ukusho isikhathi kufanele kwenziwe njalo ngethemu ngokuqhubekayo. Isib.abafundi bangecelwa ukusho isikhathi uma kugena isikole, ngesikhathi sekhefu, isikhathi sokugoduka, noma beshintsha isifundo beya kwesinye. Khetha isikhathi lapho iwashi likhombisa ihora noma isigamu sehora. kuyasiza ukukhombisa iwashi elikhulu ekilasini ukuze abafundi bamane bebheka kulo.abafundi bangenza imifanekiso yamawashi. Ungabacela bakhombise izikhathi ezihlukene kufaka nezibalo.Isib. “Ngikhombise ihora leshumi ngqo.” “Ngikhombise ukuthi kuzobe kuyisikhathi sini emuva kwesigamu sehora.”	isifundo1

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.2 **ubude**	**ISILINGANISO Okungahlelekile** • Qagela, linganisa, Qhathanisa, hlela bese ubhala ubudeusebenzisa ukukala okungenasilinganiso njengezandla, izinyathelo, ubude bepensela njll. • Chaza ubude bezinto eziphathekayongokubala usho nobude besilinganiso usebenzisa amayunithi angalinganisiwe • Sebenzisa ulimi ukhuluma uqhathanisa Isb. Okude ngokuthe xaxa, okufishane ngokuthe xaxa, okuphakeme ngokuthe xaxa, kubanzi **Ukukala okulinganisiwe** • Qagela, Linganisa, qhathanisa,hlela bese ubhala ubude usebenzisa amamitha (irula eliyimitha, intambo eyimitha)	NgeThemu 1 kwakunconyiwe ukuthi abafundi bagxile ekuhlawumbiseleni, linganisa, qhathanisa kanye nokubhala phansi ubude, ububanzi kanye nokuphakama ngezikali ezingahlelekile kepha bangakwenza okuye ukuhlawumbisela, ukuqhathanisa kanye nokubhala phansi ISILINGANISO ngamamiyha. Zombili lezindlela zokulinganisa ngobude kungenziwa ngokuphindaphinda ngesikhathi sokwenza umsebenzi ngokuzimela ithemu yonke.wonke umsebenzi kufanele ubhalwe phansi. Ngesikhathi esabelwe izinombolo,izimpawu nobudlelwane abafundi bangaxazulula izinkinga zezibalo ezisesimweni ngoku; • ukulinganisa okungahlelekile kobude; kanye • Nokulinganisa ubude ngamamitha. Qaphela uhla lwezinombolo olulungele leyo Themu,kanye nohla lwezinhlobo zezinkinga zezinkinga zezibalo ezilungele iThemu.		

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.3 **Isisindo**	**Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa, hlela ubhale phansi isisindo usebenzise amayunithi angalinganisiwe nokuzimelela Isib. Amabhuloki nezitina njll. • Sebenzisa amagama ukhuluma uqhathanisa Isib.okulula, okusindayo,okulula kakhulu, okusinda kakhulu. **Yethula Isilinganiso esihleliwe** • Qhathanisa, hlela, ubhale phansi isisindo sezinto eziqoqelwe ndawonye ezithengisayo ezinesisindo esibhalwe ngamakhilogremu Isib. Amakhilogremu amabili elayisi kanye nekhilogremu eyodwa yofulawa. • Balinganisa isisindo sabo ngamakhilogremu besebenzisa isikali sasendlini yokugeza.	**Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa, hlela ubhale phansi isisindo usebenzise amayunithi angalinganisiwe nokuzimelela Isib. Amabhuloki nezitina njll. • Sebenzisa amagama ukhuluma uqhathanisa Isib.okulula, okusindayo,okulula kakhulu, okusinda kakhulu. **Yethula Isilinganiso esihleliwe** • Qhathanisa, hlela, ubhale phansi isisindo sezinto eziqoqelwe ndawonye ezithengisayo ezinesisindo esibhalwe ngamakhilogremu Isib. Amakhilogremu amabili elayisi kanye nekhilogremu eyodwa yofulawa.	**Yini okuhlukile eBangeni 2?** eBangeni 1 kwakunconyiwe ukuthi abafundi bagxile ekusebenzeni ngokulinganisa nokuzimelela • Ukulinganisa ngqo isisindo sezinyo, • Ukuhlela nokuqhathanisa isisindo sezinto ezi-3 noma ngaphezulu, ngokubeka izinto ezihamba ngambili entweni yokuzimelela, kuze zonke izinto zilandelane. • Thola isisindo sezinto usebenzisa amayunithi esisindo esingahlelekile. Abafundi bagxila ekuthuthukiseni ulimi bekhuluma ngesisindo. Abafundi kufanele baqale ukuhlanganisa abakwaziyo besebenzisa ukuzimelela nama unithi angahlelekile ukulinganisa isisindo. Sebengavezelwa isisindo ngamakhilogremu. **Ukulinganisa okungahlelekile kwesisindo usebenzisa ukuzimelela kanye namayunithi angahleliwe.** Abafundi bangafunda yonke imigomo benze bephindaphinda ulinganisa besebenzisa amayunithi angahleliwe,ukulingani ngamayunithi angahleliwe akufanele sithathelwe phansi njengesingabalulekile kunamayunithi alinganisiwe. Izizimeleli ezithengisayo zesisindo zingasetshenziswa, uma ungenazo izizimeli ezithengisayo ungazenzela ngokubeka izinto ezihamba ngambil zalokhu okulandelayo: inkomishi kayogathi, ingxenye yangaphansi yebhodlela lobisi noma isiphuzo esibandayo (izitsha ezifanayo zingafakwa kuhlangothi ngalunye kwinto yokulengisa izimpahla). Ukulinganisa isisindo ngamayunithi angahleliwe kufaka ukubala ukuthi mangaki amayunithi akhethiwe anesisindo afanayo uma izinto zilinganiswa.Isibonelo. Irula inesisindo esilinganayo namabhuloki ayisi-9. Abafundi fanele balinganise izinhlobo ezihlukene zezinto usebenzisa uhla lwezinto njengamayunithi ahleliwe. Abafundi fanele bafundiswe kusho iyunithi njalo uma benika isisindo.Isib.incwadi inesisindo esilinganayo nezezimabuli ezinga-34. Uma abafundi sebelinganisile nanoma ngayiphi iyunithi izikhathi eziningana, kufanele bahlawumbisele ukuthi mangaki amayunithi anesisindo esilinganayo nento elinganiswayo / ekalwayo.ukuhlawumbisela ngaphambi kokulinganisa kubalulekile kepha kungenziwa kuphela uma abafundi sebenze ukulinganisa ngaleyo yunithi.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.3 **Isisindo**		• Lapho isikali sasendlini yokugeza sikhona, abafundi balinganisa isisindo sabo ngamakhilogremu besebenzisa isikali sasendlini yokugeza. okulindelekile ukuthi abafundi bafunde kuphela ukusondezela kwikhilogremu eliphelele.	Abafundi fanele bafundiswe ukuze bakwazi ukuqhathanisa isisindo esihlukene sezinto lapho amayunithi afanayo kufanele asetshenziswe.Isib.uma irula inesisindo samabhuloki ayi-20, isikele sinesisindo somabuli abangama-20, ngeke ukwazi ukusho ukuthi kunesisindo esilinganayo noma cha,noma okuphi okusinda kakhulu kunokunye. **Ukubhala phansi izilinganiso** Nakuba ukulinganisa kuyikhono lokwenza abafundibakwazi ukukala kodwa kufanele babhale phansi izilinganiso zabo zonke izikhathi. **Ukusebenza ngamakhilogremu** Abafundi bangaqala ukwethulwa / ukufundiswa ngamakhilogremu ngokusebenza ngokudla okuthengiswa ngamakhilogremu, lapho inombolo yekhilogremu ishiwo empahleni. Isib.abafundi bangaqathanisa isisindo sezimpahla ezinezinto ezingafani (njenge layisi, impuphu, ushukela, ufulawa noma insipho yokuwasha) okuthengiswa ngesilinganiso esingamakhilogremu a-1.bangafaka lokhu kwisizimeleli ukubona ukuthi noma ubungako bezimpahla bungafani kepha kunesisindo okungenani esingaphezulu noma esingaphansi. Abafundi banganikezwa uhla lwezimpahla lwezinto ezihlukene bazilandelelanise ezisinda kakhulu kuya kwezilula kakhulu,lapho bezilandelelanisa ngokwesisindo esizempahleni Isib.ilayisi 2 kg, ushukela 1 kg, impuphu 5 kg, isitambu 10 kg. **Ukufunda isikali sasendlini yokugeza** Uma izikali zasendlini yokugeza zikhona abafundi bangazisebenzisa ukufunda isisindo sabo. Kunezinhlobo ezimbili zamamitha esisindo: isikali sezinti nesezinombolo. Isikalisilinganiso sezinombolo kulula ukusifunda ngoba isisindo sibhalwe ngezinombolo.uma unesikali sezinombolo sasendlini yokugeza bheka ukuthi isisindo singamakhilogremu aphelele, ezinye izikalisilinganiso uyazicupha ziveze amakhilogremu aphelele kuphela, uma ungakwazi ukusicupha siveze amakhilogremu aphelele, fundisa abafundi ukuzishaya indiva izingxenye zamakhilogremu okwamanje. Iningi lezikali zezinti zasendlini yokugeza zonke zinezinombolo ezingama- 10 kg, nomugqa omude okhomba isikhundla sama-5 kg. Imigqa yama-1 kg ngokuvamile ayinazo izinombolo.lokhu kuyafana nendlela imigqa nezinombolo ezisebenza ngayo kwirula.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.3 **Isisindo**			Ithi abafundi baqale ngokubala ukubona ukuthi kunezikhala eziyi-10 phambi kophawu lwama 10 kg, ukuze isikhala ngasinye simele ikhilogremu elilodwa, ubude bomugqa bumele amakhilogremu amahlanu. Abafundi bangafunda isilinganiso sezikali zasendlini yokugeza nakwizithombe zezikali zasendlini yokugeza kunezokwangempela. **Ukubhala izilinganiso** Noma ukulinganisa kuyikhono lokwenza, abafundi kufanele babhale phansi isilinganiso sabo nkathi zonke. **Sebenzisa ukulinganisa isisindo njengengqikithi yokuxazulula izinkinga zezibalo** Ngesikhathi esabelwe izinombolo, ukusebenza, nobudlelwane bezinombolo abafundi bangaxazulula izinkinga kwizimo: • Ukulinganis okungahlelekile kwesisindo. **Isibonelo:** indwangu yokusula ibhodi inesisindo somabuli abayi-11.ibhokisi lokhirayoni linesisindo somabuli abayi-8, kukonke kunganesisindo somabuli abangaki? • Isilinganiso sesisindo ngamakhilogremu **Isibonelo:** uSipho uthenge impuphu engama-12 kg, ushukela ama-5 kg, ilayisi ama-2 kg.singakanani isisindo sezimpahla ezithengiwe zizonke? Bhekelela uhla lwezinombolo olulungele iThemu, kanye nohla lwezinhlobo zezinkinga zokulinganisa ezilungele iThemu.	Izifundo 3

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.4 Umthamo	**Isilinganiso esingahlelekile** • Qagela ulinganise, qhathanisa uhlele umthamo wezitsha (Isib.umthamo ongathwalwa isitsha uma sigcwele) usebenzisa izikali ezingahleliwe Isib. izipuni nezinkomishi. • Chaza umthamo wesitsha ngokubala usho ukuthi zingaki izikali ezingahleliwe ezingagcwalisa isitsha Isib.ibhodlela linomthamo wezinkomishi ezine. **Yethula Isilinganiso esihleliwe** • Qagela, uqhathanisa, hlela, ubhale phansi umthamo wezinto ngokulinganisa ngamalitha. • Qhathanisa, hlela ubhale phansi umthamo wezinto eziyiqoqo ezithengisayo umthamo wazo ochaziwe ngamalitha Isib.amalitha amabili obisi, ilitha eyodwa yesiphuzo esibandayo,amalitha amahlanu opened.	Uhla lokwenza kufaka olokubhaka luyasiza kwisimo lapho abafundi benza bephindaphinda isilinganiso.khetha uhla lapho izithako zinikeziwe ngezinkomishi, izipuni noma amayunithi angahleliwe. Kulonyaka kunconyiwe ukuthi abafundi bagxile eku: • Thuthukiseni ulimi bekhuluma ngomehluko womthamo. • Qhathanisa umthamo osezitsheni ezimbili ezifanayo, • Qhathanisa umthamo osezitsheni ezimbili ezifanayo kakhulukazi okubanzi ngokuthe xaxa nokungumcingo • Ukulinganisa umthamo nokumumethwe ngezinsiza ezingahleliwe namayunithi. Ngesikhathi sokusebenza ngokuzimela abafundi bangahlawumbisela, baqhathanise, bahlele babhale phansi umthamo nokumumethwe ngezinsiza ezingahleliwe kanye namayunithi angahleliwe omthamo.ukubhaka nokupheka kuyisimo esisizayo lapho abafundi bengenza bephindaphinda ukulinganisa umthamo. Khetha uhla lapho izilinganiso zinikezwe ngezinkomishi, izipuni kanye namayunithi angahleliwe. **Sebenzisa isilinganiso njengengqikithi yokuxazulula izinkinga zezibalo** Ngesikhathi esabelwe izinombolo, ukusebenza, nobudlelwane bezinombolo abafundi bangaxazulula izinkinga kwizimo zokulinganisa okungahlelekile zomthamo / okumumethwe Isib.uGogo usebenzise izinkomishi ezimbili zobisi ukweza iyite, uma ephinda kabili loku,angadinga ubisi olungakanani ? Bhekelela uhla lwezinombolo olulungele iThemu, kanye nohla lwezinhlobo zezinkinga zokulinganisa.		

ITHEMU YESI-2 YEBANGA LESI-2 5. UKUQOKELELWA KOLWAZI				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
5.4 **Qoqa bese uhlela ulwazi**	**Qoqa bese uhlela ulwazi** • Qoqa ulwazi ngezinto ezisekilasini noma esikoleni ukuze aphendule imibuzo ebuzwe uthisha.. • Hlela ulwazi ngamathali			
5.5 **Okumele Ulwazi**	**Okumele Ulwazi** yethula lwazi ngegirafu yezithombe emele izithombe.			
5.6 **Hlaziya bese uhumusha Ulwazi**	• **Hlaziya bese uhumusha Ulwazi** Phendula imibuzo ngolwazi kwigrafu yezithombe.	Hlaziya ulwazi lwezinto ezinikeziwe.	Abafundi kufanele babenolwazi lwakHo konke okuqokelelwe eThemu 1, bangagxila ekuhlaziyeni okumelwe abakunikeziwe.yo yonke. Kuyanconywa ukuthi kwThemu 2 abafundi bahlaziye (baphendule imibuzo ngezi:) okungenani igrafu yezithombe eyodwa. Abafundi baphendula imibuzo ebuzwa nguthisha ngegrafu yezithombe Isib. • “yiluphi uhlelo lwamabonakude oluthandwa ngabaningi ekilasini?” • “yiluphi uhlelo oluthandwa ngabafundi abambalwa ekilasini?” • “ngabe abafundi abaningi abaningi bathanda …. noma …..?” • “bangaki ngaphezulu abafundi abathanda …. kuna ….?”	Isifundo 1

ITHEMU YESI-3 YEBANGA LESI- 2 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANE BAZO				
ISIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3**	**AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
1.1 **Bala izinto**	**Ukubala izinto eziphathekayo** Qagela bese ubala okungenani izinto zansukuzonke ezingama -200 ngokuyikho. Iqhinga lokubala ngamaqoqo liyagqugquzelwa.	Ukubala okungenani izinto zansukuzonke eziyi - 180 ngokuyikho Nika ukuqagela okusondelele kwezinto ezingatholwa ngokubala	**Ikuphi okwahlukile kuThemu 2?** EThemu 2 uhla lwezinombolo olusetshenziswayo luyenyuka, nabafundi babala izinto kuyofika e 180. Ukubala izinto kulethemu kuyaqhubeka ukweseka: • Amakhono okubala adingekile ekuqondeni ubungako besikhundla senombolo; • Ukubala uphimisela; • Ukusho amagama ezinombolo; • Ukubona izimpawu zezinombolo; kanye • namakhono okubala adingekelayo ukubala. Kugxilwa ekubaleni ngamaqoqo kusetshenziswa izinto zokubala ezahlukahlukene ezibekwe ngamaqoqo. Kuyasiza ukusebenzisa izinto ezihlelekile uma sifundisa ubungako bezinombolo, Isibonelo: abafundi bangasebenzisa amabhuloki ahamba ngama 10 ukubala ngamashumi bese ukhombisa amaqoqo okuyi 10. Imibuzo ewusizo engabuzwa abafundi uma kubalwa ngezinto • Wazi kanjani ukuthi usuyibalile leyo nombolo ? • Ungayibona ngani impendulo yakho ukuthi iyiyo ?	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.2 **Ukubala uya phambili ubuye uye emumva**	Bala uya phambili bese uya emumva ngoku: • Ngoku -1 ukusuka kunoma iyiphi inombolo phakathi kuka 0 nama 200. • Ngama - 10 ukusuka kunoma iyiphi inombolo ephinda ephinda ngamashumi phakathi kuka o ukuya kuma 200. • Ngoku -5 kusuka kunoma iyiphi inombolo ephinda ngokuyisihlanu phakathi kuka 0 nama 200 • Ngoku -2 kusuka kunoma iyipi inombolo ephinda ngokubili phakathi kuka 0 nama 200 • Ngoku -3 kusuka kunoma iyiphi inombolo ephinda ngakuthathu phakathi kuka 0 nama 200 • Ngoku -4 kusuka kunoma iyiphi ukubala ngakune phakathi kuka 0 nama 200	Bala uya phambili bese uya emumva: • Ngoku -1 ukusuka kunoma iyiphi inombolo phakathi kuka 0 nama 180. • Ngama - 10 ukusuka kunoma ikuphi ukubala ngamashumi phakathi kuka o ukuya kuma 180 • Ngoku -5 kusuka kunoma ikuphi ukubala ngasihlanu phakathi kuka 0 nama 180 • Ngoku -2 kusuka kunoma ikuphi ukubala ngabili phakathi kuka 0 nama 180 • Ngoku -3 kusuka kunoma ikuphi ukubala ngakuthathu phakathi kuka 0 nama 180 • Ngoku -4 kusuka kunoma ikuphi ukubala ngakune phakathi kuka 0 nama 180	**Ikuphi okwahlukili kokukwaThemu 2?** EThemu 3 uhla lwezinombolo olusetshenziswayo luyenyuka kubafundi sebebabala ukusuka e 150 ukuyofika e 180. Uma abafundi bebala bephimisela kusemqoka ukwenza abafundi bagxile ezinombolweni abazibalayo. Isibonelo, buza: Uma sibala ngakubili ukusuka e-120 ukufika e 140 siyambala yini u 121? kungani singambali ? Kusesemqoka ukusebenzisa umugqa wezinombolo neshadi lezinombolo eziyi -100 ukuze babone ukuthi amagama abashoyo ahambisana kanjani nesakhiwo sezinombolo. Abafundi kumele babe negridi yezinombolo esukela e 100 kuya e 200 ukuthi bayisebenziseukukhomba nokubala. Bheka amanothi kaThemu 2	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
UKUMELA IZINOMBOLO EZIPHELELE				
1.3 **izimpawu namagama ezinombolo.**	**Ukwazi nokufunda izinombolo** • Ukwazi nokufunda izimpawu zezinombolo ukusuka ku 0 - 200 • Ukubhala izimpawu zesinombolo ukusuka ku 0 kuya ema -200. • Ukwazi nokufunda izinombolo ukusuka ku 0 kuya ema 100 • Ukubhala amagama ezinombolo ukusuka ku 0 kuya e- 100	**Ukwazi nokufunda izinombolo** • Ukwazi nokufunda izimpawu zezinombolo ukusuka ku 0 - 180 • Ukubhala izimpawu zesinombolo ukusuka ku 0 kuya ema -180 • Ukwazi nokufunda izinombolo ukusuka ku 0 kuya ema 75. • Ukubhala amagama ezinombolo ukusuka ku 0 kuya ema -75	**Ikuphi okwahlukile kuThemu 2?** Uhla lwezinombolo; • Ukukwazi, ukufunda nokubhala izimpawu zezinombolo kukhula kuyofika e 180; kanye • Ukukwazi, ukufunda nokubhala kuyofika e 75 Abafundi kumele bakwazi ukubona izinombolo bakwazi nokuchaza umehluko ngawabo amagama. Isibonelo: Kufanele babheke kulamakhadi ezinombolo alandelayo bese bekwazi ukubona umehluko phakathi kwanoma iziphi izinombolo ezimbili: **16** **11** **16** **13** **16** Bheka amanothi kaThemu 2	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.4 **Chaza, uqhathanise bese uhlela izinombolo**	**Hlela bese uqhathanisa izinombolo kuyofika kuma -99** • **Hlela** izinombolo eziphelele kuyofika kuma -99 ukusuka kwencane ukuya kwenkulu nakwenkulu kuya kwencane. • **Qhathanisa** izinombolo eziphelele kuyofika kuma -99 usebenzisa okuncane kuna, okukhulu kuna, okuningi kuna, okungaphansi kuna nokulingana na. **Ukusebenzisa izinombolo zesikhundla ukubonisa ukuhleleka, indawo noma isikhundla.** Ukubeka izinto zilandelane emugqeni kube eyokuqala, eyesibili kuyofika kweyeshumi noma eyokuqala kuyofika kweyokugcina, Isib. Eyokuqala, eyesibili, eyesithathu... kweyama 20 njll	**Hlela bese uqhathanisa izinombolo ukofika kuma -75** • **Hlela** izinombolo eziphelele ukusuka kwencane ukuya kwenkulu nakwenkulu kuya kwencane. • **Qhathanisa** izinombolo eziphelele usebenzisa okuncane kuna, okukhulu kuna, okuningi kuna, okungaphansi kuna nokulingana na. **Ukusebenzisa izinamba zesikhundla ukubonisa ukuhleleka, isikhundla sento.** Ukubeka izinto zilandelane emugqeni kube eyokuqala kuyofika kweyamashumi amabili noma eyokuqala kuya kweyokugcina,Isib. Eyokuqala, eyesibili, eyesithathu...eyeshumi	**Ikuphi okwahlukili kuThemu 2?** KuleThemu abafundi bahlela bese beqhathanisa izinombolo ukuya e -75. Kuze kufike manje abafundi bebeqhathanisa bese behlela izinombolo ukukhulisa ulwazi lobungako bezinombolo uma uziqhathanisa nezinye. Imibuzo esezibalweni kumele ikhethwe ngokucophelela ukuze abafundi bakhuliswe emakhonweni okucabanga okufaka izinombolo nobungako bazo. Abafundi kumele babuzwe imibuzo yezinga eliphezulu ukukhulia izinga lokucabanga. Kumele abafundi bakhuliswe olimini lokucabanga nabalusebenzisa uma bechaza. Izibonelo zemibuzo engabuzwa: • Nginikeze inombolo ephakathi kwama-50 nama- 60. Ingabe lenamba isondelene no 50 noma u 60? Nika incazelo yempendulo yakho usebenzisa umugqa wezinombolo. • Abafundi kumele bafundiswe ukukwazi ukucabanga bakwazi ukuhlela izinombolo. Abafundi abachaze ukuthi kungani ama- 15 abe mncane kunama- 50. Incazelo ingasekelwa ngokusebenzisa izinto eziphathekayo. Ekupheleni kweThemu abafundi kumele, Isib. • Azi ukuthi iziphi izinombolo ezincane kunama- 50 neziningi kunama- 50; kanye • Ukukwazi ukukhomba isikhundla sazo zonke izinombolo eziko 30; 40; njll usebenzisa igridi yezinombolo. Esikhundleni sokunika abafundi izibalo eziyimisho ukuba baqedele, kokunye ungabatshela ukuba benze eyabo imisho,ukubonisa ukuhambisana kobungako bezinombolo. Isibonelo: Yenza le misho yezinamba ibe iqiniso : • ☐ kukhulu ngoku- 1u kunoku ☐ • ☐ kuncane ngoku- 1 ukunoku ☐ • ☐ kukhulu ngoku- 10 ukunoku ☐ • ☐ kuncane ngoku- 10 ukunoku ☐ Bheka amanothi kaThemu 2	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.5 **Ubungako benani lenombolo**	**Ukubona ubungako benani lenombolo okungenani ezingambili ukofika kuma 99** • Ukwazi ukuthi idijithi ngalinye limeleni. • Ukuhlakaza izinombolo ezingambili ukuyofika kuma -99 ngokubala ngamashumi nangokukodwa (TU). • Ukubona bese esho ubungako bedijithi ngalinye	**Ukubona ubungako benani lenombolo okungenani ezingambili ukofika kuma 75** • Ukwazi ukuthi idijithi ngalinye limeleni. • Ukuhlakaza izinombolo ezingambili ukuyofika kuma -99 ngokubala ngamashumi nangokukodwa (TU). • Ukubona bese esho ubungako bedijithi ngalinye	**Ikuphi okwahlukile kuThemu 2?** Ngalethemu abafundi baqhubeka nokukhulisa ulwazi lokuqonda ubungako benani lenombolo ukuyofika kuma 75. kuleThemu abafundi baqhubeka noku: • Bala bese ubeka amaqoqo abonisa amashumi nokungakunye ngezindlela ezahlukene; • Ukubala izinto ezihleliwe; • Ukusebenzisa amakhadi obungako benombolo ukukhombisa inani lezinto eziqoqiwe zabalwa; bese • Bonisa ukuhlelwangezindlela ezahlukene kwezinombolo Isibonelo: u 35 angabakhonjiswa njengezinto ezingu 35 ezihamba ngazodwa, amashumi ayi 3 noku 5 okuhamba ngakodwa kanye namaqoqo amabili okuyishumi nokuyi 15 okuhamba ngakunye. Lomsebenzi ongenhla ungenziwa ngesikhathi sokufundiswa kugxilwe emaqenjini noma ngesikhathi sokufunda ngokuzimela. Abafundi bangabhala lokhu okulandelayo: 68 = 6 wamaqoqo okuyi 10 noku 8 okuhamba ngakunye. 68 = 60 no 8 Lokhu kungenziwa kusetshenziswa amafladikhadi noma amakhadi obungako besikhundla senombolo. Abafundi kumele bakwazi ukuphendula imibuzo noma imiyalelo efana nalena: • Iyiphi inombolo efana nama 50 kanye 7? • Ngikhombise ama -75 usebenzisa amakhadi ubongako benombolo.. • Ngikhombise ama- 75 kwi abhakhasi.. • Ngikhombise ama- 75 kumabhulokisi ayishumi. • Ngikhombise ama- 75 usebenzisa amakhiyubhi.. • Ngikhombise ama- 75 usebenzisa intambo yobuhlalu. • Bala ukhipha izinti zikamentshisi ezinga 70 usebenzisa amaqoqo okuyishumi. Mangaki amaqoqo amashumi owatholayo? Ukubhala encwadini yokusebenzela yeklasi noma yokusebenzela ngamunye ingaqhubeka ngesikhathi sokufunda ngokuzimela.	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
UKUXAZULULA IZINKINGA ESIMWENI ESIJWAYELEKILE				
1.6 **Amasu okuxazulula izinkinga zezibalo.**	Ukusebenzisa amasu alandelayo uma kuxazululwa izinkinga bese uchaza izixazululo. • Imidwebo noma izinto eziphathekayo. Isibonelo, izinto zokubala. • Ukwakha izinombolo nokuzihlakaza • Ukuphinda kabili nokuhlukanisa phakathi kulingane • umugqa wezinombolo	Ukusebenzisa amasu alandelayo uma kuxazululwa izinkinga bese uchaza izixazululo. • Imidwebo noma izinto eziphathekayo. Isibonelo, izinto zokubala. • Ukwakha izinombolo nokuzihlakaza • Ukuphinda kabili nokuhlukanisa phakathi kulingane • umugqa wezinombolo	Abafundi kulindeleke ukuba baxazulule izinkinga zezibalo zamagama besebenzisa lamasu alandelayo: • Imidwebo noma izinto eziphathekayo. Isibonelo izinto zokubala • Ukwakha izinombolo nokuzihlakaza • Ukuphinda kabili nokuhlukanisa phakathi kulingane • imigqa yezinombolo Bheka amanothi kaThemu 2	
1.7 **Ukuhlanganisa nokususa**	Ukuxazulula izinkinga zezibalo zamagama ezimenwi ezijwayelekile bese uchaza isixazululo sezinkinga ezifaka ukuhlanganisa nokususa okumezimpendulo ezifka kuma -99.	Ukuxazulula izinkinga zezibalo zamagama ezimenwi ezijwayelekile bese uchaza isixazululo sezinkinga ezifaka ukuhlanganisa nokususa okumezimpendulo ezifka kuma -75.	**Ikuphi okwahlukile kuThemu 2?** Abafundi baqhubeka ngokusebenzangalezinhlobozezinkinga zezibalo zamagama ezichazwe esahlukweni 2 kodwa uhla lwezinombolo lukhule lwafika ema 75 Bheka amanothi eThemi 2.	
1.8 **Ukuhlanganisa ngokuphindelela okuholela ezibalweni zokuphindaphinda**	Ukuxazulula izinkinga zezibalo zamagama ezimenwi ezijwayelekile bese uchaza isixazululo sezinkinga usebenzisa ukuhlanganisa uphindayo noma ukuphindaphinda okunezimpendulo ezifka kuma -50.	Ukuxazulula izinkinga zezibalo zamagama ezimenwi ezijwayelekile bese uchaza isixazululo sezinkinga usebenzisa ukuhlanganisa uphindayo noma ukuphindaphinda okunezimpendulo ezifka kuma -40.	**Ikuphi okwahlukile kuThemu 2?** Abafundi baqhubeka ngokusebenzangalezinhlobozezinkinga zezibalo zamagama ezichazwe esahlukweni 2 kodwa uhla lwezinombolo lukhule lwafika ema 40 Bheka amanothi kaThemu 2	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.9 **Ukwenza amaqoqo nokuhlukaniselana okuholela ekwahlukaniseni.**	Ukuxazulula izinkinga zezibalo bese uchaza izixazululo ezifaka ukuhlukaniselana ngokulingana nokwenza amaqoqo ukuyofka kokungama 99 okunezimpendulo ezingafaka izinsalela.	Ukuxazulula izinkinga zezibalo bese uchaza izixazululo ezifaka ukuhlukaniselana ngokulingana nokwenza amaqoqo ukuyofka kokungama 75 okunezimpendulo ezingafaka izinsalela	Ngalethemu abafundi baqhubeka nokusebenzisa imidwebo nezinto zokubala eziphathekayo ukubonisa izixazululo zabo. Imisho yezinombolo kufanele isetshenziswe. Abafundi bazosebenzisa ukususa okuphindayo ukubonisa ukuthi bafika kanjani empendulweni. Bheka amanothi kaThemu 2	
1.10 **Ukuhlukanisa okuholela emaqhezwini**	Ukuxazulula izinkinga zezibalo bese uchaza izixazululo ezifaka ukuhlukaniselana ngokulingana okuholela kwizixazululo ezifaka amaqhezu angokukodwa kokuphelele. Isibonelo $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}$ njll.	Ukuxazulula izinkinga zezibalo bese uchaza izixazululo ezifaka ukuhlukaniselana ngokulingana okuholela kwizixazululo ezifaka amaqhezu angokukodwa kokuphelele. Isibonelo $\frac{1}{2}, \frac{1}{4}, \frac{1}{3}, \frac{1}{5}$ njll.	Ukugxila ezibalweni zamaqhezu ezinkinga zamagama kulethemu kuyaqhubeka ukuvumela abafund ukwenza: • ukwabelana nokwenza amaqoqo ngokulinganayo; • ukusho izingxenyana zamaqhezu; • ukuthola amaqhezu ezinto eziphelele; • ukubona ukuthi iqhezu lingxenye yokuphelele; kanye • ukubhala amaqhezu njengokukodwa kokuthathu. Ngalethemu abafundi basho okukodwa kokuthathu kanye nokukodwa kokuhlanu. Kusemqoka ukuba abafundi bavezelwe ulwazi lwamaqhezu ahlukene ngaphandle kwawohhafu nekota. **Izibonelo zezinkinga ezingenziwa ngaleThemu.** • Abangani abayisi -6 bahlukaniselana amaswidi ayi 7 ngokulingana. Dweba isithombe ukukhombisa impendulo yakho. Qhathanisa impendulo yakho neyomngani. • Abangani abayi 8 bahlukaniselana amaswidi ayi 9 ngokulingana. Dweba isithombe ukukhombisa impendulo yakho. Qhathanisa impendulo yakho neyomngani. • Ikota e- 1 Bheka amanothi kaThemu 2	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.11 **Imali**	• Ukubona nokukhomba imali yaseNingizimu Afrika ewuhlweza (5c, 10c, 20c, 50c, R1, R2, R5,)nengamaphepha (R10, R20, R50) • Ukuxazulula izinkinga zemali ezifaka isamba noshintshi ukufika kuma R 99 nama senti afika kwangama 90.	• Ukubona nokukhomba imali yaseNingizimu Afrika ewuhlweza (5c, 10c, 20c, 50c, R1, R2, R5,) • Nengamaphepha (R10, R20, R50) • Ukuxazulula izinkinga zemali ezifaka isamba noshintshi ukufika kuma R 75 nama senti afika kwangama 75.	**Izibonelo zezinkinga ezingenziwa ngaleThemu.** • Abafundi abangama 35 nothisha o 1 bahamba nesikole baya esiqiwini. Isikole sikhokhe R1,20 ngomfundi ngamunye ukungena esiqiwini. Imalini efanele ikhokhwe? • UMakhoba uthengela umndeni wakhe izinkwa ezi -2 besinkwa ngosuku. Ulofu owodwa wesinkwa ubiza R4, 99. Ukhokha malini ngezinsuku eziyisi 5 ? Bheka amanothi kaThemu 2	
UKUBALA ESIMWENI ESIJWAYELEKILE NESIKHULULEKILE.				
1.12 **Amasu** **(izindlela noma amaqhinga)**	Sebenzisa lamasu alandelayo wenza izibalo: • Imidwebo noma izinto eziphathekayo, isibonelo: izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili • Imigqa yezinombolo	Sebenzisa lamasu alandelayo ukubala izibalo: • Imidwebo noma izinto eziphathekayo, isibonelo: izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili • Imigqa yezinombolo	Abafundi balindeleke ukuxazulula izinkinga ezisesimweni esikhululekile besebenzisa lamasu alandelayo: Ukwakha nokuhlakaza izinombolo Ukuphinda kabili nokuhlukanisa kabili Imigqa yezinombolo Bheka amanothi kaThemu 2	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**	• Ukuhlanganisa kufike kuma 99 • Ukususa kusuka kuma 99 • Sebenzisa izimpawu ezifanele (+, x, =, ☐) • Yenza uphindelela amabhondi ezinombolo kufika kuma 20	• Ukuhlanganisa kufike kuma 75 • Ukususa kusuka kuma 75 • Sebenzisa izimpawu ezifanele (+, x, =, ☐) • Yenza uphindelela amabhondi ezinombolo kufika kuma 20	Bheka amanothi kaThemu 2 Abafundi baqhubeka nokuhlakaza izinombolo bathole ukuzethemba ekusebsn-ziseni lamaqhinga okubhala. Izindlela ezingasetshenziswa ukwenza izibalo zokuhlanganisa nokususa **Ukuhlakaza inombolo uyenze izingxenye ezincane ukuze ukubala kubelula** **Ukusebenzisa ulwazi lobungako benani lenombolo ukuhlakaza izinombolo zibe amashumi nemivo.** Ukuhlanganisa izinombolo ezihamba ngambili ngokuzihlakaza. 33 + 36 = ☐ 33 + 36 = (30 + 3) + (30 + 6) = (30 + 30) + (3 + 6) = 60 + 9 = 69 **Ukuhlanganisa ngokuhlakaza inombolo eyodwa** 33 + 36 = ☐ 33 + (30 + 6) 33 + 30 → 63 + 6 = 69 Abafundi bangayihlakaza inombolo ngezindlela abangazisebenzisa. Lokho kusho ukuthi bazokwenza ngezindlela ezahlukene. 33 + 36 = ☐ 33 + (10 + 10 + 10 + 6) 33 + 10 → 43 + 10 → 53 + 10 → 63 + 6 = 69	

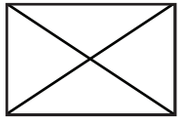
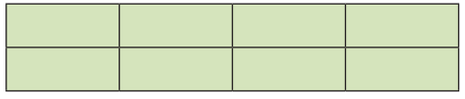
ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**			**Ukususa** • Ukuhlakaza zombili izinombolo 75 - 54 = □ 75 - 54 = (70 + 7) - (50 + 4) = (70 - 50) + (7 -4) = 20 + 3 = 23 • Ukususa ngokuhlakaza eyodwa inombolo 75 - 54 = □ 75 - (50 + 4) 75 - 50 → 27 - 4 = 23 Ungakulindela ukuthi abafundi bangazihlakaza inombolo ngezindlela ezahlukene ukuze kube lula kubo uma benza izibalo 75 - 54 = □ 75 - (20 + 20 + 10 + 6) 75 - 20 57 -20 37 - 10 = 27 - 4 = 23 **Ukusebenzisa uhuhlukanisa kabili ukuhlakaza inombolo** 59 + 12 59 + (6 + 6) 59 + 6 65 + 6 = 71 **Ukusebenzisa ulwazi onalo lwezibalo njengamasu** Amasu akhonjiswe ngezansi avumela abafundi ukuba babale futhi nolwazi lwezinombolo ngokuhlelekile. Ukwenza ngokuphindelela amasu angezansi enza abafundi bakwazi ukubona ubudlelwano obukhona phakathi kwezinombolo nokukwazi ukusebenza ngezinombolokwenzeni izibalo.	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**			**Ukubala uqhubeka ubuye uye emumva** 68 - 59 = □ Ukubala uya phezulu ngakunye kusukela kuma 59 kuyiqhinga elifanele ngoba izinombolo zisondelene. **Ukubona izinombolo eziphindayo ezisondelene** 34 + 35 ukuchaza ukuthi ukuphindeka kabili u 34 umhlanganisa noku 1 noma ukuphinda kabili u 35 ususe u 1 34 + 34 + 1 Abafundi bangabhala phansi amaqhinga abawasebenzisile besebenzisa imici-bisholo: 34 + (30 + 4) + 1 34 + 30 → 64 + 4 → 68 + 1 = 69 **Ukushintsha inombolo ibale ngamasumi bese ususa noma uhlanganisa okukodwa.** Ukubala wenyuke noma wehla usondezele koku 10 58 + 19 = □ Lapha abafundi kumele bazitshele ukuthi bangakhetha phakathi kwezindlela ezimbili. Shintsha ama 58 noma i 19 kusondelele enombolweni ephinda nge 10. Ukuzikhethela okwabo. Isibalo singabhalwa kanjena: 58 + 19 = 58 + 20 - 1 58 + 20 → 78 - 1 = 77 Abanye abafundi bangahlakaza ama 20 benze amaqoqo amabili ama 10 ukubala ngokuyikho.	

<table>
<tr><th>ISIHLOKO</th><th>ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA</th><th>ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3</th><th>AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI</th></tr>
<tr>
<td>1.14
Ukuhlanganisa okuphiphindayo okuholela ekuphin-daphindeni</td>
<td>• Phindaphinda izinombolo kusukela koku 1 ukufika e 10 ngoku 1,2,5,3, noku 4.
• Sebenzisa izimpawu ezifanele (+, x, =, ☐)</td>
<td>• Phindaphinda izinombolo kusukela koku 1 ukufika e 10 ngoku 2,5, 4.
• Sebenzisa izimpawu ezifanele (+, x, =, ☐)</td>
<td>Ikuphi okwahlukile kuThemu 2?
NgeThemu yesithathu abafundi baqhubeka nokwenza bephindelela ukuqonda kwabo ukuphindaphinda nokusebenzisa igridi yokuphinaphinda okokuqala.
Baqhubeka uku:
• Bebhala ngendlela elandelayo:
Iqoqo eli-1 loku - 2 lenza oku-2 noma oku- 1 ukuphinda ka 2 kwenza 2 noma 1 x 2 = 2
Amaqoqo ama 2 oku 2 enza oku- 4 noma oku- 2 ukuphinda ka2 kwenza 4 noma 2 x 2 = 4
Amaqoqo ama 3 oku 2 enza oku- 6 noma oku- 3 ukuphinda ka2 kwenza 6 noma 3 x 2 = 6
NgaleThemu abafundi baqala izibalo zokuphindaphinda ngo 4. Ukuphindaphinda ngo 2, nangoku 5 kuyaqhubeka nokwenziwa ngokuphindelela.
Imifanekiso yokuphindaphinda kumele iqhubeke inikezwe kanye nokubhala phansi okuningi kufanele kwenziwe emsebenzini wasekilasini. Ukuqonda kwabafundi kungenziwa nasezincwadini zokusebenzela. Imigqa yezinombolo, imidwebo ebonisa ukuxhumana kanye namathebula kungasetshenziswa ukwakha ulwazi lwezimpawu ezisetshenziswa ezibalweni. Abafundi banganikwa izibalo eziyimisho ukuqedela izibalo kanje:
6 x 2 = ☐
5 x 7 = ☐
4 x 6 = ☐
Abafundi bangasebenzisa igridi yokuphindaphinda ukuthola izimpendulo zezibalo. Lokhu kungabasiza ekufundeni nasekuqondeni amathebula nezibalo zokuphindaphinda:
<table>
<tr><td>x</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr>
<tr><td>2</td><td>2</td><td>4</td><td>6</td><td>8</td><td>10</td><td>12</td><td>14</td><td>16</td><td>18</td><td>20</td></tr>
<tr><td>4</td><td>4</td><td>8</td><td>12</td><td>14</td><td>20</td><td>24</td><td>28</td><td>32</td><td>26</td><td>40</td></tr>
<tr><td>5</td><td>5</td><td>10</td><td>15</td><td>20</td><td>25</td><td>30</td><td>35</td><td>40</td><td>45</td><td>50</td></tr>
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ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.16 **Izibalo zekhanda**	**Ulwazi lwezinombolo: uhla olufika kuma 99** • Hlela iqoqo lezinombolo ozinikiwe • Qhathanisa izinombolo ukufika kuma 99 bese usho iyiphi eningi noma encane ngoku 1,2,3,4,5, no 10 **Ukukhumbula ngokushesha:** • Izindlela zokuhlanganisa nokususa ukufika kuma 20. • Hlanganisa noma susa ngokuphinda ngoku 10 ukususka koku 0 kuya e 100. **Amaqhinga okwenza izibalo** Sebenzisa amaqhinga ukuhlanganisa nokususa ngokuyikho: • Beka inombolo enkulu kuqala ukuze ubale uqhubeka noma uya emumva • Umugqa wezinombolo • Phinda kabili noma hlukanisa kabili • Ukwakha nokuhlakaza inombolo	**Ulwazi lwezinombolo: uhla olufika kuma 75** • Hlela iqoqo lezinombolo ozinikiwe • Qhathanisa izinombolo ukufika kuma 75 bese usho iyiphi eningi noma encane ngoku 1,2,3,4,5, no 10 **Ukukhumbula ngokushesha:** • Khumbula izindlela zokuhlanganisa nokususa ukufika e 15. • Hlanganisa noma susa ngokuphinda ngoku 10 ukususka koku 0 kuya ema 50 **Amaqhinga okwenza izibalo** Sebenzisa amaqhinga ukuhlanganisa nokususa ngokuyikho: • Beka inombolo enkulu kuqala ukuze ubale uqhubeka noma uya emumva • Umugqa wezinombolo • Phinda kabili noma hlukanisa kabili • Ukwakha nokuhlakaza inombolo	**Izibonelo zemibuzo engabuzwa:** **Ulwazi lwezinombolo:** **Amagama nezimpawu zezinombolo** Bamba ikhadi noma bhala phansi igama lenombolo. Khetha umfundi ukuba abhale inombolo ehambisanayo. **Okuningi noma okuncane** **Yikuphi oku** • oku -1 okuncane kunama 45 • oku- 1 okuningi kunama 69 • kuncane ngoku 5 kunama 36 • okuningi ngoku10 kunama 30 Uluphi uhlamvu lwesihlanu kwizinhlamvu ze alfabhethi ? Iyiphi inyanga yesi 9 onyakeni ? **ukuhlela nokuqhathanisa** Ikuphi okuningi: 21 noma 171 ? Nika noma iyiphi inombolo ephakathi kuka 154 no 159. **Izindlela zokuhlanganisa nokususa:** • Ukwazi ngekhandawonke amabhondi ezinombolo okuhlanganisa nokususa kufika ema -20 □ + △ = 20 □ + △ = 16 18 = □ - △ Izindlela zokuhlanganisa nok ususa zonke izinombolo kufike e -15. Isibonelo: 1 + 14 = 15 14 + 1 = 15 2 + 13 = 12 13 + 2 = 15 15 - 4 = 11 15 - 11 = 4 15 - 5 = 10 15 - 10 = 5	

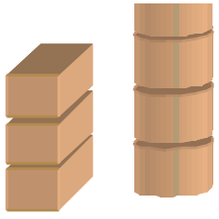
ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.16 **Izibalo zekhanda**	• Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa.	• Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa.	Ukukhumbula ngokushesha kwezinombolo eziphindayo kufike e 15. Lokhu kufanele kufake zokususa ezihambisanayo. • 1 + 1 = 2 • 2 + 2 = 4 • 3 + 3 = 6 • 4 + 4 = 8 Ngibonise inombolo ongayihlanganisa ukwenza okuyi 15.(ungayibhala phansi noma usebenzise amafladikhadi ukwenza lezizibalo) • 8 • 2 • 9 Ngibonise inombolo esele uma.....esuswa e-15. (ungayibhala phansi noma usebenzise amafladikhadi ukwenza lezizibalo) • 5 • 13 • 0 **Amasu okubala:** Bheka amanothi eThemu 2	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.17 **Amaqhezu**	• Sebenzisa bese usho amaqhezu ezimweni ezijwayelekile ezifaka ohhafu, amakota okukodwa kokuthathu nokukodwa kokuhlanu • Ukubona amaqhezu asemidwebeni. • Ukubhala amaqhezu ngokuthi uhhafu owodwa, okubili kokuthathu.	• Sebenzisa bese usho amaqhezu ezimweni ezijwayelekile ezifaka ohhafu, amakota okukodwa kokuthathu nokukodwa kokuhlanu • Ukubona amaqhezu asemidwebeni. • Ukubhala amaqhezu ngokuthi uhhafu owodwa, okubili kokuthathu.	**Ikuphi okwahlukile kuyhemu 2?** NgaleThemu abafundi bagxila ekufundeni ukuthi igama leqhezu lixhumene kanjani kwinani lezingxenye ezenza okuphelele. Imidwebo eyahlukene ingasetshenziswa ukwakha ulwazi lwamaqhezu kubafundi. Isibonelo:  Imibuzo elandelayo ingabuzwa: Zingaki izingxenye ezilinganayo ? Ibizwa ngokuthini ingxenye ngayinye ?  Zingaki izingxenye ezilinganayo ? Siyibiza ngokuthini ingxenye ngayinye?  Zingaki izingxenye ezikhona ? Ibizwa ngani ingxenye ngayinye ? Imisebenzi yalolu hlobo igquzela: Ukuba abafundi bazi ukuthi amaqhezu ayizingxenye ezilinganayo; • Ukubona izingxenye zamaqhezu; kanye • nokusho izingxenye zamaqhezu Ukubhala Asiwethuli amaqhezu kubafundi ukuba bawabhale ngezimpawu zawo.Aabafundi bafunda ukuthi bangawafaka kanjani amagama ezingxenye zamaqhezu njengekota e 1, oku 1 kokuhlanu.	

ITHEMU YESI- 3 YEBANGA LESI-2 2. AMAPHETHINI, UBUDLELWANO NE ALJEBHRA.				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3**	**AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
2.1 **Amaphethini ayizibalomdwebo**	**Kopisha, wandise bese uchaza** Kopisha, wandise bese uchaza ngamagama: • amaphethini alula enziwe ngezinto eziphathekayo. • amaphethini alula enziwe ngemidwebo yemigqa, ngezimo noma ngezinto ezahlukene. **Akha amaphethini akho** Akha amaphethini akho ayizibalomdwebo. • sebenzisa izinto eziphathekayo. • Ngokudwebw imigqa, nezimo noma izinto **Amaphethini asizungezile** Khomba, chaza ngamagama bese ukopisha amaphethini ayizibalomdwebo • emvelweni • empilweni yesimanje yansukuzonke. • Ezintweni ezingamagugu abantu	**Kopisha, wandise bese uchaza** Kopisha, wandise bese uchaza ngamagama: • amaphethini alula enziwe ngezinto eziphathekayo. • amaphethini alula enziwe ngemidwebo yemigqa, ngezimo noma ngezinto ezahlukene. **Akha amaphethini akho** Akha amaphethini akho ayizibalomdwebo. • sebenzisa izinto eziphathekayo. • Ngokudwebw imigqa, nezimo noma izinto	Qhubeka unike abafundi uhla lwamaphethini olufanayo njengaeThemu yesi 2. Bheka amanothi kathemu 2 Vumela abafundi ukuba bakopishe, bese bandisa bagcine ngokuchaza amaphethini. Kufanele ngabe sebeyakwazi ukuchaza amaphethini ngaphandle kwemibuzo ebasizayo. Qhubeka ugxile ekuthuthukiseni ulimi abaludingayo ukuchaza amaphethini.	

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2.2 Amaphethini ezinombolo	**Kopisha, wandise bese uchaza** Kopisha, wandise bese uchaza ukulandelana okulula kwezinombolo ukuyofika okungenani ema -200 **Akha amaphethini akho** Yakha amaphethini lakho lezinombolo.	**Kopisha, wandise bese uchaza** Kopisha, wandise bese uchaza ukulandelana okulula kwezinombolo ukuyofika okungenani e -180 Ukulandealana kwezinombolo kumele kubonise ukubala uya phambili nokuya emumva noku: • Ngoku -1 beqala kunoma iyiphi inambolo phakathi koku - 0 noku yi 180. • Ngokuyi -10 ukusuka kunoma iyphi inombolo ephinda ngokuyi 10 phakathi kuka 0 kuya koku yi 180. • Ngokuyi -5 ukusukakuinoma iyiphi inombolo ephinda ngokuyi 5 phakathi kuka 0 kuya koku 180 • Ngoku -2 ukusuka kunoma iyiphi inombolo ephinda ngokuyi2 kusuka ku 0 kuya koku yi 180 • Ngoku -3 noku 4 ukusuka ku noma iyiphi inombolo ephinda ngoku 3 noku 4 phakathi kuka 0 kuya kokuyi 180 **Ukwakha amaphethini akhe**	Bheka amanothi kaThemu 1, ubungako bezinombolo kunganyuka ukofika e-180	Izifundo ezi - 3

ITHEMU YESI -3 YEBANGA LESI-2 3. INDAWO NESIMO (IJIYOMETRI)				
ISIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3**	**AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni eziyi hora eleodwa nemizuzu engama-24)
3.1 **Isikhundla, inkomba nokubukeka kwento**	**Ulimi lwesikhundla** Chaza iskhundla sento kwenye. Iisibonelo: kungaphezulu kwe, kungaphambili, ngemumva, ngakwesokunxele, ngakwesokundla, phezulu, phansi, eduze kwe **Isikhundla nokubukeka kwento** Qondanisa ukubukeka okwehlukene kwento efanayo yansukuzonke. **Isikhundla nezinkomba** Landela izinkomba ukunyakaza ekilasini.	**Isikhundla nokubukeka kwento** Qondanisa ukubukeka okwehlukene kwento efanayo yansukuzonke. **Isikhundla nezinkomba** Landela izinkomba ukunyakaza ekilasini.	**Okunconyiwe okuzogxilwa kukho ngeThemu 3: Isikhundla Nokubukeka kwento** **Yini ehlukile eBangeni 1** EBangeni 2 abafundi benza ngokuphindelela bebukeza abakufunde ngokuqondanisa ukubukeka okwehlukene kwento efanayo yansuku zonke. **Isikhundla nokubukeka kwento** Abafundi emaBangeni aphansi kumele baqonde ukuthi izinto zibukeka gokwehlukile uma uzibheka ezikhundleni ezahlukene. Abafundi bangakubuka ngokunganaki ukuthi izinto ezifana nezimoto zibukeka zincane uma zikude. Abafundi abasebenze kakhulu ngezincwadi kanye nemidwebo esezincwadini, kudinga bazi ukuthi into esesithombeni esiphambili sibukeka sisikhulu kunento. Ngesikhathi sokufunda samaqoqo abafundi bangabeka izandla basithe amehlo, ukuze kumvibeke isithombe sento enkulu ekude. EBangeni lesiBili abafund kufanele banikwe imisebenzi lapho bengaqondanisa ukubukeka okwehlukene (ukubukeka okuvela phezulu, ukubukeka okuvela emaceleni, ukubukeka okuvela ngaphambili)kwezinto ezahlukene zansuku zonke. Lokhu kuzogcina kusiza abafundi bakwazi ukuhumusha imidwebo yejiyometri eyenziwa kusukela kukubukeka okwehlukene.	Isifundo esisodwa

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3.2 **Izinto ezinhlang-othintathu (3-D)**	**Uhla lwezinto** Ukubona bese usho izinto ezinhlangothintathu (3-D) eziseklasini nasezithombeni. • Izimo ezisabhola (okuyindilinga) • Izimo ezisamabhokisi (amaphrizimu) • Amasilinda **Izimpawu zezinto** Chaza, uhlele bese uqhathanisa izinto ezinhlangothintathu ngoku: • bungakho • izinto eziginqikayo • izinto ezishibilikayo	**Uhla lwezinto** Ukubona bese usho izinto ezinhlangothintathu (3-D) eziseklasini nasezithombeni. • Izimo ezisabhola (okuyindilinga) • Izimo ezisamabhokisi (amaphrizimu) • Amasilinda **Izimpawu zezinto** Chaza, uhlele bese uqhathanisa izinto ezinhlangothintathu ngoku: • bungakho • izinto eziginqikayo • izinto ezishibilikayo	**Yini entsha ngethemu yesi-3:** Amasilinda ayangezwa ezintweni zokufunda. **Izinto ezinhlangothintathu eBangeni lesiBili.** Abafundi bazosebenza ngalokhu: • amabhola nezinto ezinezimo ezisabhola • amasilinda nezinto ezinezimo ezisasilinda; kanye • izinhlobonhlobo zamabhokisi nezinto ezenezimo ezingonxande, namaphrizimu kanye namakhiyubhu. **Ukugxila ezimpawini zezinto ezinhlangothintathu: eziginqikayo nezishelelayo.** Lokhu kuqhubeka emsebenzini ofundwe eBangeni 1 eThemini 1 kodwa amasilinda angeziwe kuleliBanga.  Abafundi bangaphenya ukuthi bangakwazi yini ukwakha umbhoshongo besebenzisa amabhola odwa, noma amabhokisi odwa,namasilinda odwa. 	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi hora eleodwa nemizuzu engama-24)
3.2 **Izinto ezinhlang-othintathu (3-D)**	**Imisebenzi Okugxilwa kuyo** Buka bese wakha izinto ezinhlangothintathu usebenzisa izinto eziphathekayo njengezinto ezisikiwe eziyizimo enhlangothimbili, amabhulokhi okwakha, izinto ezike zasebenza, izinto zokwakha nokunye kokwakha nokuyibalomdwebo.		**Ukubona bese besho amabhola (okuyindilinga) namabhokisi (iphrizimu) nama silinda.** Abafundi,baqhubeka nokusho,bahlele, bese benza amaqoqo ezinto, kodwa manje sekufakwe namasilinda. Abafundi kumele banikwe uhla lwezinto ukuze basebenze ngezimo ezifana: • Okuyimbulunga, isibonelo amabhola awubungako obungalingani, amamabhula, amawolintshi, njll • Amaphrizimu, isibonelo amabhuloki, izitini, amabhokisi awubungako obungal-ingani njengamabhokisi kamentshiso, amabhokisi ensipho, ibhokisi lomuthi wamazinyo, ibhokisi letiye; kanye • Amasilinda: ufaka amade na wumtshumo, isibonelo ipayipi elinesimo esyis-ilinda, ingaphakathi lebhokisi elinamaphepha, ibhokisi elisonga amaphepha asendlini yangasese, kanye namasilinda amafushane abanzi njengamathini kapholishi nedosha lesinemfu. Abafundi bangathola izinto ezinezimo ezifana nebhola (okuyimbulunga) nezimo esimise okwamabhokisi (iphrizimu) nezimo ezimise okwamasilinda ezintweni azinikiwe. Abafundi bangathola noma bakhombe izinto ezinezimo ezimise okwamabhokisi (amaphrizimu) eklasini, isibonelo: “ Leli thini lelikhofi limise okwesilinda”. Ngesikhathi sokufunda ngokuzimela abafundi baqhubeka: • Nokwakha ngezinto; kanye • Nokwenza izimo ezingamabhola, amabhokisi namasilinda ngobumba noma ngenhlama yokudlala **Umsebenzi obhalwayo** Nakuba umsebenzi omningi wenzinto ezinhlangothintathu wenziwa ngezandla kufanele umsebenzi uphethwe ngomsebenzi obhalwayo. **Ulimi** Qhubeka nokukhulisa ikhono kubafundi lokukhuluma ngezinto ezinhlangothintathu. Bheka amanothi kaThemu -1	Izifundo ezi - 2

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi hora eleodwa nemizuzu engama-24)
3.3 **Izimo ezinhlangothimbili (2-D)**	**Uhla lwezimo** Ukubona bese usho izimo Bona bese usho izimo ezinhlangothimbili • Izindilinga • Onxantathu • Izikwele • Onxande **Izimpawu zezimo** Chaza, uhlele bese uqathanisa izimo ezinhlangothimbili ngoko: • Bungako • mbala • ngesimo • amacala aqondile • amacala ayindilinga	Akukho ukugxila kakhulu okubhekiswa ezimeni ezinhlangothimbili kodwa akukho okunconyiwe kuThemu -2. Kodwa - ke umsebenzi wezimo ezinhlangothi mbili ungaphethwa ngemisebenzi ebhalwayo ngesikhathi sokusebenza ngokuzimela. Abafundi bangaqhubeka nokwenza izithombe ngzimo ezinhlangothimbili ngesikhathi sokusebenza ngokuzimela nangesikhathi sobuciko namasiko		

ITHEMU YESI-3 YEBANGA 2 4. ISILINGANISO				
ISIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3**	**AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
4.1 **Isikhathi**	**Ukusho isikhathi** • Yisho bese ulandelanisa izinsuku zeviki • Yisho bese ulandelanisa izinyanga zonyaka • Ukufaka ekhalendeni izinsuku zokuzalwa, imigubho yezenkolo, amaholide, izehlakalo eziwumlando, izehlakalo zesikole. • Yisho sikhathi samahora ayi- 12, isigamu sehora, nekota ye hora. **Bala ubude bese ubala ukudlula kwesikhathi** • Sebenzisa ikhalenda ukubala uchaze ubude besikhathi ngezinsuku noma namasonto Sebenzisa iwashi ukubala ubude besikhathi ngamahora ngengxenye ngekota yehora.	**Ukusho isikhathi** • Yisho bese ulandelanisa izinsuku zeviki • Yisho bese ulandelanisa izinyanga zonyaka • Ukufaka ekhalendeni izinsuku zokuzalwa, imigubho yezenkolo, amaholide, izehlakalo eziwumlando, izehlakalo zesikole. • Yisho sikhathi samahora ayi- 12, isigamu sehora, nekota ye hora. **Bala ubude bese ubala ukudlula kwesikhathi** • Sebenzisa ikhalenda ukubala uchaze ubude besikhathi ngezinsuku noma namasonto • Sebenzisa iwashi ukubala ubude besikhathi ngamahora ngengxenye ngekota yehora.	Abafundi bayaqhubeka bekhuluma bephindelela ngobude besikhathi nokulandelana kwesikhathi. Ngesikhathi sokufunda iklasi lilonke nangesikhathi sokufunda ngamaqoqo abafundi baqhubeka nokukhuluma ngezinsuku zesonto, izizinyanga zonyaka nosuku lwangalelolanga kanye nezinsuku ezidlule nezizofika. Abafundi bayawajwayela amakhalenda ngokukwazi ukafaka: • Izinsuku zokuzalwa; • Imigubho yezenkolo; • Izehlakalo eziwumlando; • Izehlakalo zesikole • Amaholide Konke lokhu bakwenza besebenzisa ikhalenda. Ngesikhathi sokufunda ngabodwa abafundi baqhubeka nokuhlela ngokulandelana izehlakalo ezenzeka nsukuzonke ezimpilweni zabo kanye nokulandelanisa izithombe nezehlakalo ngendlela ehlelekile.Abafundi benza imisebenzi ehambisana nokusho iskhathi ngamahora nangesigamu sehora. **Yikuphi okwehlukile kuThemu 2 ?** • Ukusho isikhathi ngamahora, isigamu sehora nekota yehora. KuThemu yesi- 3 kugxilwa ekushweni isikhathi ngamahora, ngesigamu sehora, kusetshenziswa iwashi lezinti. Lokhu kungagxilwa kukho ezifundweni ezimbili. Ukusho isikhathi kufanele kwenziwe ngokukuphinda eThemini ngezikhathi zonke.	Izifundo ezi -3

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
4.1 **Isikhathi**			Isibonelo, abafundi babuzwa ngesikhathi sokuqala kwesikole, isikhathi sekhefu, nesikhathi sokuya emakhaya noma isikhathi sokushintsha izifundo ukuqala kwesinye isifundo. Bakhetha izikhathi lapho iwashi libonisa izikhathi ngqo noma isigamu sehora noma ikota yehora. Kuyasiza ukuthi kube newashi elikhulu elisebenzayo ekilasini khona abafundi bangabuka kulo. Abafundi bangenza amawashi ayimifanekiso. Uthisha angabuza imibuzo ezodinga basho izikhathi ezahlukene. Isibonelo:"khombisa isikhathi esiyihora le -10. Khombisa ukuthi bekuwubani isikhathi ikota lehora" Abafundi kufanele benze izibalo besebenzisa iwashi, Isibonelo, bakhombisa isikhathi esiwu 12 emini; babuze ukuthi isikhathi sizobe sithini emahoreni amathathu ezayo. Bahambisa izinti emawashini abo ayimifanekiso (noma babheke iwashi elisekilasini noma elisesithombeni) ukubala bathole izimpendulo. Abafundi akumele babale ubude besikhathi ngamahora nangesigamu sehora ngaphandle kokusebenzisa amawashi. • Basebenzisa ikhalenda ukubala nokuchaza ubude besikhathi sezinsuku noma samasonto. Abafundi bagxila ekufundeni amakhalenda. Bafunda ukuthola izinsuku ezithile kwikhalenda. Abafundi babala ubude besikhathi ngezinsuku noma amasonto bebe bebuka kwikhalenda. **Abafundi abalindelekile ukuphendula izinsuku namasonto.** **Abafundi abalindelekile ukubala isikhathi okufaka ukubala isikhathi phakathi kwezinsuku uma bengenawo amakhalenda.**	

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4.2 Ubude	**Isilinganiso esingahlelekile** • Qagela, linganisa, qhathanisa, uhlele, bese ubhala ubude usebenzisa isilinganiso esingalinganisiwe Isibonelo: ubude besandla,amagxathu, ubude bepensela, izinto zokubala, njll. • Chaza ubude bezinto ngokubala usho izilinganiso ezingahleliwe ukuthi zingaki nokuthi zinde kangakanani. • Ukusebenzisa ulimi lokuqhathanisa, isibonelo okude kuna,, okufushane kuna, okuphakeme kuna, okubanzi kuna **Ukwethula Isilinganiso esihlelekile** Qagela, linganis, qhathanise, uhlele bese ubhala ubude usebenzisa amamitha, (ngokusebenzisa induku eyimitha noma ubude obungangemitha bentambo) bangasebenzisa lokhu njengezkali ezilinganisiwe zobude.	NgeThemu 1 kwanconywa ukuba abafundi bagxile ekuqageleni, ekulinganeseni, ekuqhathaniseni nasekubhaleni phansi ubude, ububanzi nokuphakama besebenzisa izilinganiso ezingahleliwe kodwa benze ukuqagela, isilinganiso, ukuqhathanisa nokubhala isilinganiso ngamamitha. Zombili lezizindlela zokulunganisa ubude zingenziwa kuphindelelwa ngezikhathi zokusebenza ngokuzimela kuze kuyophela iThemu.Wonke umsebenzi kumele ubhalwe phansi **Ukulinganisa ubude njengesimo sokuxazulula izinkinga nokwenza izibalo.** **Nge**sikhathi esisetshenziselwa Izinombolo, Izimpawu nobudlelwane bazo, abafundi bangaxazulula izinkinga ezisesimweni soku: • linganisa okungahlelekile kobude. Isibonelo: kungamagxatho anga 27 ukuyofika endlini kathishanhloko. Kungamagxatho angama 36 ukuya esangweni lesikole. Kude kangakanani ukuyofika esangweni lesikole? • Ukulinganisa ubude ngamamitha. Kumele uthisha akhumbule uhla lwezinombolo olusezingeni lweThemu nezinkinga ezahlukene ezingaxazululwa.		

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
4.3 **isisindo**	**Isilinganiso esingahlelekile** • Qagela, linganise, qhathanise, uhlele bese ubhala isisindo usebenzisa isikalo esingalinganisiwe. Isibonelo amabhuloki, izitini, njll • Ukusebenzisa ulimi lokuqhathanisa, Isib. okulula, okusindayo, okulula ngokuthe xaxa, okusinda ngokuthe xaxa **Ukwethula Isilinganiso esihlelekile** • Qhathanisa,hlela bese ubhala isisindo sezimpahla zokuthengisa ezinesisindo esibhalwe ngamakhilogremu isibonelo: amakhilogremu amabili erayisi nekhilogremu elilodwa likaflawa. • Balinganisa ubungako bemizimba yabo besebenzisa isilinganiso sasendlini yokugeza.	Abafundi bangaqhubeka benza bephindelela ukuqagela, isilinganiso, ukuqhathanisa bese kubhalwa phansi isisindo kusetsthenziswa ukulinganisa okungahlelekile nolinganisa ukuzimelela ngesikhathi sokusebenza ngokuzimela **Ukulinganisa isisindo njengesimo sokuxazulula izinkinga nokwenza izibalo.** **Nge**sikhathi esisetshenziselwa Izinombolo, Izimpawu nobudlelwane bazo, abafundi bangaxazulula izinkinga ezisesimweni soku: • Ukulinganisa okungahlelekile kwesisindo; kanye • nokulinganisa isisindo ngamakilogremu. Kumele uthisha akhumbule uhla lwezinombolo olusezingeni lweThemu nezinkinga ezahlukene ezingaxazululwa.		

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
4.4 **Umthamo / okumumethwe**	**ISILINGANISO okungahlelekile** • Qagela bese ulinganisa, uqhathanise bese, uhlele umthamo osezitsheni (umthamo ongamumathwa isitsha uma sigcwalisiwe) ukusebenzisa isilinganiso esingenasilinganiso, isibonelo: izipuni nezinkomishi. • Chaza umthamo omumethwe isitsha ngokubala usho ukuthi zingaki izilinganiso ezingahleliwe ezigcwalisa isitsha. Isibonelo: ibhodlela ligcwaliswa izinkomishi ezine. **Ukwethula Isilinganiso esihlelekile** • Qagela, linganisa, qhathanisa, hlela, bese ubhala umthamo wezinto ngokuzilinganisa ngamalitha.	**ISILINGANISO okungahlelekile** • Qagela bese ulinganisa, uqhathanise bese, uhlele umthamo osezitsheni (umthamo ongamumathwa isitsha uma sigcwalisiwe) ukusebenzisa isilinganiso esingenasilinganiso, isibonelo: izipuni nezinkomishi. • Chaza umthamo omumethwe isitsha ngokubala usho ukuthi zingaki izilinganiso ezingahleliwe ezigcwalisa isitsha Isibonelo: ibhodlela ligcwaliswa izinkomishi ezine. **Ukwethula Isilinganiso esihlelekile** Qagela, linganisa, qhathanisa, hlela, bese ubhala umthamo wezinto ngokuzilinganisa ngamalitha usebenzisa: • amabhodlela anomthamo oyilitha elilodwa	**Okuhlukile kuBanga 1** eBangeni 1 kunconywa ukuba abafundi bagxile • Ukuthuthukisa ulimi lokhuluma ngomehluko kumthamo. • Ukuqhathanisa umthamo osezitsheni ezimbili ezifanayo. • Ukuqhathanisa umthamo osezitsheni ezimbili ezingafani, isitsha esivulekile neside esiwumtshumo; kanye • ukulinganisa okungahlelekile usebenzisa amayunithi anglinganisiwe. EBangeni 2 abafundi baqhubeka nokugxila ekwenzeni ukulinganisa okungahlelekile ngamayunithiangalinganisiwe omthamo. Abafundi bathola ulwazi lokuthi ilitha liwumthamo ongakanani. **Yini umthamo yini okumumethwe ?** Umthamo uwubungako obungagcwala kuleyonto(ubungako besikhala esingaphakathi kwesitsha) Okumumethwe yilikho okungangena esikhaleni salesositsha esisebenzisiwe. Ibhodlela lingaba nomthamo welitha elilodwa, kodwakungenzeka lingagcwali; kungenzeka limumathe uketshezi eliwumthamo wenkomishi eyodwa. **Ukulinganisa okungahlelekile komthamo kusetshenziswa isilingaane, amabhodlela amancane, njll.** Ukulinganisa umthamo / okumumethwe usebenzisa amayunithi anglinganisiwe kufaka ukubala ukuthi kuthatha izikhathi ezingaki ukugcwalisa ngamayunithi angenasilinganiso akungathathwa njengokungenamsebenzi kunokulinganisa ngamayunithi abesilinganiso. Abafundi bamele bathole ithuba lokulinganisa umthamo noma okumumethwe besebenzisa izinto ezahlukene ezingenasilinganiso esilingahleliwelsibonelo: izinkomishi (kungezona izinkomishi zokulinganisa) izipuni (kungezona ezokukala) izivalo zamabhodlela njengamabhodlela obisi, amathini amancvalo zamathini, amathini amancanenamabhodlela amancane, Ukulinganisa umthamo noma okumethwe ngezilinganiso ezingenazinganiso zingafaka ukubala ukuthi kuthatha izikhathi ezingaki ukugcwalisa isitsha usebenzisa iyunithi ekhethiwe.	Izifundo ezi -3

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
4.4 **Umthamo / okumumethwe**	• Qhathanisa,uhlele bese ubhala umthamo wezimpahla zokuthengisa umthamo wazo obhalwe ngamalitha.isibonelo: amalitha ama -2 obisi, ilitha eli -1 lesiphuzo, amalitha ama-5 kapende.	• Ujeke wokulinganisa onamagabelo angamalitha • Qhathanisa,uhlele bese ubhala umthamo wezimpahla zokuthengisa umthamo wazo obhalwe ngamalitha.isibonelo: amalitha ama -2 obisi, ilitha eli -1 lesiphuzo, amalitha ama-5 kapende.	Abafundi kumele bafundiswe njalo ukusho iyunithi, isib. kunamathisipuni angama 48 amanzi ebhodleleni noma kunamanzi angaphansi kwenkomishi ebhodleleni. Uma abantwana sebelinganise ngezilinganiso ezahlukene izikhashana bangaqagela umthamo / okumumethwe besebenzisa amayunithi. Ukuqagela ngaphambi kokulinganisa kubalulekile kodwa kungenzeka uma abafundi sebene ISILINGANISO ngaleyo yunithi.. Abantwana kumele bafundiswe isilinganiso ukuze bakwazi ukuqhathanisa imithamo noma okumumethwe okunamayunithi afanayo. Isibonelo: uma ingilazi imumatha amathisipuni angama -20 amanzi, inkomishi imumatha izipuni eziyi -10 angeke uthi leyongilazi imumatha amanzi amaningi ngokubala ngamathisipuni Abafundi kumele belinganise ngohla lwamayunithi angahleliwe ukuze • Baqale ukuqonda uma amayunithi emancane, siningi isikhathi ozosidinga ukugcwalisa.. Isibonelo: Ibhodlela lingagcwaliswa izipuni ezingama -20 kodwa noma inkomishi eyodwa. - Bakwazi ukusebenzisa amyunithi afanele okulinganisa ahambisana nokul-inganiswayo. Isibonelo, ISILINGANISO ibhodlela eligcwele eli 2 amalitha nezipuni ezincane ukuchitha isikhathi. **Ukwethula ukulinganisa okuhlelekile** • Ukujwayela ukulinganisa ngamalitha Abafundi batshelwa ukuthi amalitha ayizilinganiso ezijwayelekile zokulinganisa umthamo nokumumethwe. Bafunda igama bese bazi ukuthi linqanyulelwa kanjani ngoba lisetshenziswa kanjalo ezintweni ezithengiswayo. Abafundi kufanele babe nolwazi ukuthi amalitha mangaki ngokusebenzisa • Amabhodlela angafani amalitha isibonelo:amabhodlela esiphuzo esibandayo, ibhodlela lobisi, ikhathoni lobisi, njll • Ukusebenza ngojeke onamazinga okulinganisa obonisa amalitha.	

ISIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
4.4 **Umthamo / okumumethwe**			Abafundi balinganisa ngamalitha izitsha ezibalwe ngenhla. Abafundi bayaqagela bese bayalinganisa umthamo wezinto ezahlukahlukene njengezitsha zeyogathi, amabhokisi ezitsha zika ayisikhrimu, amabhokisi aphatha isidlo sasemini, ojeke abakhullu, amabhodlela amakhulu, amthini kapende angenalutho, amabhakede, njll. Izinto zomthamo owahlukahlukene kumele zikhethwe. Abafundi bachaza umthamo ngokuthi kuncane kunelitha, kuncane kunamalitha amabili kuphakathi kwelitha namalitha amabili, kungamalitha ama-5, njll Qhathanisa, ulandelanise bese ubhala phansi umthamo wezimpahla eziyiqoqo eziqoqelwe ndawonye zokudayisa ezibhalwe umthamo ngaphandle ngamalitha. Isibonelo amalitha ama -2 obisi, iltha eli -1 lesiphuzo esibandayo, amalitha amahlanu kapende, njll **Ukubhala phansi isilinganiso** Nakubauku;linganisa kuyikhono elenziwayo abafundi bayadinga ukwazi ukubhala phansi abakulinganisayo zonke izikhathi bebhalaukulinganisa okungahlelekile nokuhleliwe. **Ukulinganisa umthamo ezimeni ezijwayelekile nokuxazulula izinkinga zokubala.** Ngesikhathi se zinombolo, izimpawu nobudlelwane bazo, abafundi baxazulula izinkinga ezihambisana • Ukulinganis okungahlelekile komthamo/ okumumethwe. Isibonelo: Ugogo use-benzisa izinkomishi ezimbili zobisi ukwenza ukhasitadi, uma engaphinda kabili uhla lwezinto azozidinga lungakanani ubisi azoludinga • amalitha Kumele uthisha akhumbule uhla lwezinombolo olusezingeni lweThemu nezinkinga ezahlukene ezingaxazululwa.	Izifundo ezi -3

ITHEMU YESI- 3 YEBANGA LESI-2 5. ULWAZI OLUQOKELELWE				
ISIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO EKUPHELENI KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO NGETHEMU 3**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
5.4 **Qoqa bese uhlela ulwazi**	**Qoqa bese uhlela ulwazi** • Qoqa ulwazi ngekilasi noma isikole bese uphendula imibuzo ebuzwa uthisha • Hlela ulwazi ngamathalizi	**Qoqa bese uhlela ulwazi** Qoqa ulwazi ngekilasi noma isikole bese uphendula imibuzo ebuzwa uthisha **Bhala okumele ulwazi** Bhala okumele ulwazi kwigrafu yezithombe **Hlaziya bese ubhala okumele ulwazi** • Phendula imibuzo ngegrafu yezithombe.	**Qoqa bese uhlela ulwazi** Kuyancomeka ukuba abafundi basebenze ngolwazi oluqokelelwe oluphelele olukuThemu 1. Kuyancomeka nokuthi abafundi eThemini 3 benze amagrafu ezithombe ngokuzimela ngamunye isuselwa olwazini olusezithombeni noma kumathebula. **Bhala okumele ulwazi** Ngoba abafundi bazobe bezidwebela izithombe abazozisebenzisa ukwenza igrafu yezithombe, kusemqoka ukukhetha izihloko ezizodwebeka kalula. Isibonelo izithombe zamakani eiiphuzo azibandayo, ngoba kulula ukudweba, izithelo zilula ukudwebeka kanti ukudweba umdlalo awuthandayo kulukhuni, uhlelo lukamabonakude aluthandayo, njll kungalukhuni kubafundi bebanga lesibili. Kulula kubafundi ukwenza igrafu emaphepheni ayizikwele. Khumbuza abafundi ngezimpawu ezimseqoka zegrafu yezithombe. (bheka iThemu 1) **Hlaziya bese uhumusha ulwazi** Abafundi kumele baphendule imibuzo ebuziwe emayelana negrafu yezithombe. Bheka iThemu 1 ukuthola izinhlobo zemibuzo efanele.	Izifundo ezi-3
5.5 **Bhala okumele ulwazi**	**Bhala okumele ulwazi** • Bhala okumele ulwazi kwigrafu yezithombe			
5.6 **Hlaziya bese uhumusha ulwazi**	**Hlaziya bese ubhala okumele ulwazi** • Phendula imibuzo ngegrafu yezithombe.			

ITHEMU YESI-4 YEBANGA LESI-2 1. IZINOMBOLO, IZIMPAWU NOBUDLELWANO BAZO				
ISIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.1 **Bala izinto**	**ukubala izinto eziphathekayo** ukuqagela, nokubala okuyikho kuze kufinyelele ema-200 ezinto zansuku zonke. Iqhinga lokwakha amaqoqo liyakhuthazwa.	**ukubala izinto eziphathekayo** ukuqagela, nokubala okuyikho kuze kufinyelele ema-200 ezinto zansuku zonke. Iqhinga lokwakha amaqoqo liyakhuthazwa.	**Yini ehlukile kuthemu 3?** Kulethemu abafundi bazobala izinto ezi-200. Ngasekupheleni kwalethemu abafundi kumele babesebebone, bathinta banyakazisa izinto ezingama- 200. Qhubeka nokugxila ezintweni ezingamaqoqo. Ngokuphela kwethemu abafundi kumele baphendule lezizinhlobo zemibuzo nemiyalelo elandelayo: • Bala izinto zokubala ngamaqoqo okuhlanu, amshumi. Hlela kabusha uphinde ubale. Inombolo yezinto zokubala isafana? • Lezi zinto zokubala zinga-200. zibale zonke lezinto ezingama-200, ungancame-la ukuzibala ngamaqoqo ama- 20 noma-25? Ngobani? • Khetha ukuthi iyiphi indlela engaba ngcono kunazozonke ukubala iqoqo lamap-ensela. • Kunezinto ezingama-80 zokubala. Uma sibala nga-2 noma nga-10, ingabe isamba ekugcineni sizofana? • Bala izinto ezingama 46 ngokuzenza amaqoqo nga- 2. Ngabe kuyashesha ukubala ngakubili ukunokubala ngakunye? • Mangaki amaqoqo ama-10 uma ubala izinto ezinga-120 zokubala?	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.2 **Bala uye phambili ubuye uye emumva**	Ukubala uya phambili nasemuva nga: • 1 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200 • Ngokuphindaphinda nga-10 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200 • Ngokuphindaphinda nga-5 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200 • Ngokuphindaphinda nga-2 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200 • Ngokuphindaphinda nga-3 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200 • Ngokuphindaphinda nga-4 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200	Ukubala uya phambili nasemuva nga: • 1 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200 • Ngokuphindaphinda nga-10 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200 • Ngokuphindaphinda nga 5s kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200 • Ngokuphindaphinda nga-2 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200 • Ngokuphindaphinda nga-3 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no-200 • Ngokuphindaphinda nga-4 kusukela kunoma iyiphi inombolo ephakathi kuka-0 no- 200	**Yini ehlukile kuthemu 3?** Ngalethemu abafundi babala baye phambili nasemumva bafinyelele ema-200. Ngasekupheleni kwethemu abafundi bazohlanganisa ukubala kwabo kuxhumane nokubala beqe ethebulini lokuphindaphinda. Abafundi kumele bachaze ukuthi yini abayiqaphelile kade bebala ngokuphindaphinda bakwazi nokubona uma bebala ngokweqa. Kumele baqale ukusebenzisa lelikhono ukuthi bekuzoba iyiphi inombolo ekubaleni. Isibonelo: Buza abafundi: uma sibala ngakubili, singayisebenzisa inombolo-20? Ikhonayini inombolo-20 ethebulini lokuphindaphindaloku-2? Ngasekupheleni kwethemu kumele bakwazi ukuphendula imibuzo ethi: • Bala ngamashumi usukela e -170 kufinyelele e-200. • Bala uye emuva ngamashumi usukela e- 80 kufinyelele e-140. • Bala ngakuhlanu usukela e -115 kufinyelele e- 145. • Bala uye emuva ngakuhlanu usukela e- 135 kufinyelele e-110. • Bala ngakuthathu usukela e -66 kufinyelele e- 81. • Bala uye emuva ngakuthathu usukela e- 190 kufinyelele e-169. • Bala ngakune usukela e -120 kufinyelele e-140. • Bala uye emuva ngane usukela e-180 kufinyelele e-160. Abafundi bengasebenzisa amagrid ezinombolo, umugqa wezinombolo, ukulandelela izinombolo, i-abhakhasi nokubala ngobuhlalu ukulekelela ukubala.	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.3 **Izimpawu zezinombolo namagama ezinombolo**	**Ukwazi nokufunda izinombolo** • Ukwazi nokufunda izimpawu zezinombolo 0 - 200 • Ukubhala izimpawu zezinombolo 0-200 • Ukwazi nokufunda izmpawu zezinombolo 0-100 • Ukubhala izimpawu zezinombolo- 0-100		**Yini ehlukile kuthemu 3?** Ngalethemu abafundi sebebona, bafunde, babhale izimpawu zezinombolo ku-finyelele e- 200. Ulwazi lwezimpawu zezinombolo luyaqina uma kubalwa izinto noma uma kubalwa kuyiwa phambili nasemuva. Ngasekupheleni kwethemu abafundi kumele baphendule kulezinhlobo zemibuzo ezilandelayo nemiyalelo: Bhala izimpawu zezinombolo: Amashumi amathathu nantathu Amashumi amahlanu nesikhombisa Amashumi ayisishiyagalolunye nambili Ikhulu nesishiyagalolunye Ikhulu neshumi nanye Ikhulu namashumi ambili nesikhombisa Qondanisa uphawu nenombolomagama	

66	Amashumi ayisishiyagalolunye nanye
8	Amashumi amahlanu nantathu
172	Amashumi amane
109	Amashumi amathathu nesishagalombili
91	Ikhulu namashumi ayisikhombisa nambili
40	Amashumi ayisithupha nesithupha
53	Isishiyagalombili
38	Ikhulu nesishiyagalolunye

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
			Funda kuzwakale izinombolo ezisekhadini ngalinye: 30 Amashumi amathathu 16 Ishumi nesithupa 19 Ishumi nesishiyagalolunye 70 Amashumi ayisikhobisa 198 67	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.4 **Chaza, uqhathanise, nkuhlela izinombolo**	**Hlela bese uqhathanisa izinombolo kufinyelele ema-99** • Hlela izinombolo eziphelele kufinyelele ema-99 kusukela kokuncane kakhulu kuya kokukhulu kakhulu, nokukhulu kakhulu kuya kokuncane kakhulu. • Qhathanisa izinombolo eziphelele kufinyelele ema- 99 usebenzisa okuncane kune, kukhulu kune,nokulinganayo **Sebenzisa izinombolo ezisho isikhundla, ukukhombisa ukuhleleka, indawo noma nesikhundla** Beka izinto emugqeni kusukela kokokuqala kuya kokweshumi noma okokuqala kuya kokokugcina isib. Okokuqala, ukwesibili, okwesithathu.... okwamashumi amabili.		**Yini ehlukile kuthemu 3?** Izinga lezinombolo lenyuke layofinyelela e- 99. **Ngasekupheleni kwethemu abafundi kumele ba:** Ukusebenzisa ngokubhala nokufunda Okokuqala, okwesibili, okwesithathu, okwesine, okwesihlanu, okwesithupha…….. asinayo indlela enqamulelayo yokubhala lokhu Sebenzisa, ukufunda nokubhala ulimi olulandelayo lokuhlela nokuqhathanisa • kungaki…… • okuningi njenge, okuyinombolo elingana ne… • kulingana no, kungaphezu nge, kumbalwa kune, kukhulu kune, kuncane kune, kubanzi kune…… • ubuningi, ubuncane, okuncane kakhulu, ukukhulu kakhulu • hlela, okokuqala, okokugcina, ngaphambi, ngemuva, okulandelayo, okuphakathi kwe, engxenyeni ethile maphakathi ne Sebenzisa uphawu = ukubambela okulinganayo Abafundi kuzomele baphenduleimibuzo efana ne: Ubani owesibili ome emigqeni? Iliphi ipensela elifishane kakhulu? Hlela izinombolo kufinyelela e-100 uzibeke emgqeni wezinombolo noma kusebenze igridi yezinombolo. Faka izinombolo ezingekho ezikhaleni zegridi ye-100	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.4 **Chaza, uqhatha-nise, nkuhlela izinombolo**			Bhala lapho iziombolo kumele zibe khona:88, 90, 92... Gcwalisa ngenombolo engekho: 115 | | 117 139 | | 141 187 | | 185 Phendula ngokukhuluma lemibuzo elandela: Iziphi izinombolo eziphakathi kuka 82 no 87? Iziphi izinombolo eziphakathi kuka 45 no 50? Iziphi izinombolo eziphakathi kukaa 69 no 75? Bhala izinombolo ngokuhleleka kusukela kwenkulu kuya kwencane: 127, 132, 165, 111, 189, 173, 156 Bhala izinombolo ngokuhleleka kusukela kwencane kuya kwenkulu: 89, 62, 56, 72, 45, 39, 17 Khombisa, ufunde ubhale izinombolo ezisho isikhundla.	

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UBUNGAKO BENANI LENOMBOLO				
1.5 **Ubungako benani lenombolo**	**Ukubona ubunga-kobenani lezinombolo ezinamadijithi amabili ufinyelele ku-99** • Ukwazi ukubona idijithi ukuthi ngayinye imeleni • Ukuhlakaza izinom-bolo ezingamadijithi amabili kufinyelele ema -99 ngoku-phinda ngamashumi nangemivo • Ukukhomba usho nesimo senani ledijithi		**Ngasekupheleni kwethemu abafundi kumele ba:** • Ukuqondisisa nokusebenzisa amagama amasha okumele ubungako: • Sebenzisa,funda uqale ukubhala: • Imivo,nomaamayunithi,amashumi, idijithi, inombolo enedijithi eyodwa,inombolo enamadijithi amabilii,....ubungako benani lenombolo.... • Hlukanisa izinombolo ezingamadijithi amabili ngokuphinda kashumi nangemi-vo kanye • Bhala izinombolo: • Amashumi ayi-6 nemivo emi-3 _____ • Amashumi ayi-2 nemivo emi- 5 _____ • Amashumi ayi-12 nemivo eyi- 8 _____ • Amashumi ayi-18 nemivo eyi- 4 _____ • Ukusebenzisa izinsiza: Amashumi ayi-4 nemivo emi-5 kusetshenziswa i-abhakhasi. Amashumi eyi-7 nemivo eyi-6 kusetshenziswa i-abhakhasi. Isho ukuthi iyiphi idijithi emelwe isi-8 ku 28. Noku-2? Isho ukuthi iyiphi inombolo elingana noma efana no: - Amashumi ayi-6 - Amashumi ayisishiyagalolunye nemivo emithathu - Amashumi amahlanu nemivo eyisishiyagalolunye	

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			Iyiphi inombolo okufanele ingene ebhokisini ngalinye? a) 34 = □ + 4 b) 78 = 70 + □ **Izinsiza kufundisa** Izinto ezingenza amaqoqo: • Izinti zokubala • Izinto zokubala ezingatshutshwa • Izinti zikamentshisi • Izinti zika Ice cream • Amabhuloki axhumanayo	
UKUXAZULULA UZINKINGA EZISESIMWENI ESEJWAYELEKILE				
1.6 **Amasu okuxazulula izinkinga**	Sebenzisa amasu alandelayo uma uxazulula ubuye uchaze izixazululo enkingeni: • Imidwebo nezinto ezibambekayo isib. Izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo		Abafundi kulindeleke ukuthi baxazulule izinkinga zezibalo zamagama besebenzisa amasu alandelayo: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo Bheka amanothi ethemu 1 no 2 yama: • Imidwebo nezinto eziphathekayo • Ukwakha nokuhlakaza • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo **Umugqa wezinombolo** Sebenzisa umugqa wezinombolo ukuze balekelelwe ukubala okungasiza abafundi babhale imicabango yabo baphinde bayilandelele. Kubuye kuvumele abafundi bakwazi ukubhala imifanekiso leyo abazoyisebenzisa ukuchaza ukuthi inkinga ixazululeke kanjani.	

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1.6 **Amasu okuxazulula izinkinga**			Abafundi bebesebenzisa umugqa wezinombolo besafunda Ibanga 1. Kulethemu 4 njengamanje sebezokwazi ukuzakhela umugqa wezinombolo ongenazo izinombolo befaka inombolo yokuqala bese bephokophelela ukuqala bese beqhubekele kwezinye. Isibonelo abafundi bazokwazi ukusebenzisa umugqa wezinombolo. Abantwana abanga-23 bahambe beyovakasha nesikole namuhla. Kunabantwana abanga 63 esikoleni. Bangaki abantwana ekade bekhona kuqalwa? Vumela abafundi ukuthi benze isu elibasebenzela kangcono. Bese kuthi uma abafundi besebenzisa amasu angasebenza kahle ukuze balekelelwe ukusebenza kangcono. Khumbula ukuthi abafundi banokusebenzisa izindlela ezehlukene ukuxazulula izinkinga okungenzeka kungabi yilezo ezilindelwe uthisha. Isibonelo. Inkinga yokuhlukanisa ingaxazululwa ngokusebenzisauphindelela ukususa,ukuhlanganisa noma ukuphindaphinda, Izindlela zabafundi zizoshintsha ngokuqhubeka konyaka nokuqonda ukujwayela kwaboizinhlobo zezinkinga zikukhula nolwazi lwezinombolo luthuthuka.	

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1.7 **Ukuhlanganisa nokususa**	Xazulula izinkinga zezi-balo zamagama esimwe-ni esijwayelekile, uchaze nendlela oxazulule ngayo inkingangokufaka ukuhlanganisa, ukususa, izimpendulo ezifinyelela ema -99.		**Izibonelo zezinkinga abafundi okumele bazenze ngasekupheleni kwethemu** Ukuhlanganisa nokususa Kunezinhlobo ezintathu zezinkinga eziyisisekelo zokuhlanganisa nokususa inhlobo ngayinye ingabuzwa ngezindlela ezahlukene. Eziyisisekelo yilezi: Ushintsho UNoluthando unamaswidi anga-25. Wanikwa uSilo amanye amaswidi ay- 18 sweets. Unamaswidi amangaki manje? UNoluthando unamaswidi anga-53. Wanikeza uSilo anga-32. Unamaswidi aman-gaki manje? Ukuxuba Ikilasi lebanga 2 linonxantathu abangama-37 abaluhlaza okotshani nayi-19 aluhlaza okwesibhakabhaka. Bangaki onxantathu abanawo? Banezindilinga ezingama-63 angama-27aluhlaza okotshani wonke amanye aluhlaza okwesibhakabhaka. Zingaki eziluhlaza okwesibhakabhaka abanazo? Qhathanisa UNosisi unobhanana abayi-13. UThemba unobhanana aba-5. Bangaki obhanana uNosisi anabo ukunabaka Themba? Ukubuza inkinga eyodwa ngezindlela ezahlukene Izinkinga kufanele zibuzwe ngezindlela ezahlukene. isib, zombili lezi ziyizinkinga zoshintsho, kodwa “okungaziwa” zisezindaweni ezehlukene zenkinga. UNoluthando unamaswidi. USilo umnike abayi-18 ngaphezulu. Manje usenamas-widi angama-43. UNoluthando ubenamaswidi amangaki ekuqaleni? UNoluthando ubenama-apula angama-25. USilo umnike amanye ama-apula. Njengamanje usenama-apula anga-43. Mangaki usilo amnikewona?	

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1.8 **TOPIC ?**	Xazulula izinkinga zezibalo ezisesimweni esejwayelekile kuchazwe nendlela okuxazulwe ngayo inking kusetshenziswa ukuhlanganisa ngokuphindaphinda noma ukuphindaphinda ufinyelela e- 50.		Izibonelo zezinkinga okumele bakwazi ukuzenza ngokuphela kwethemu Ukuhlanganisa ngokuphindelela Amabhayisikili angama-20 anamasondo amangaki? Isilinganiso UThami uhamba amabhuloki ayi-6 ngelanga. Mangaki amabhuloki awahamba ngesonto? Amagridi UMnu. Khumalo utshala imigqa eyi-7 yezithombo zeklabishi. Kunezithombo ezi-8 emugqeni. Zingaki izithombo zamaklabishi ezikhona zizonke?	
1.9 **Amaqoqo nokuh-lukanisaokuholela ezibalweni zokuh-lukanisa**	Xazulula uchaze izixazululo ezinkingeni ezenzekayo ezifaka ukuhlukanisa ngokulingana namaqoqo kufinyelela ema -99 anezimpendulo ezinezinsalela.		Izibonelo zezinkinga okumele bakwazi ukuzenza ngokuphela kwethemu Ukwakha amaqoqo Ukwakha amaqoqo, ukulahla, nezinsalela UStella udayisa ama-apula ayi-10 esikhwameni ngasinye. Unama-apula ayi-80. Zingaki izikhwama zama-apula ayi-10 angazenza? Ukwakha amaqoqo, afaka izinsalela empendulweni? Umlimi unamaqanda ayi-47. Mangaki amabhokisi amaqanda afaka amaqanda ayi 6 ngalinye awadingayo? Ukuhlukaniselana Ukuhlukaniselana, ukulahla nezinsalela Hlukanisa amaswidi ayi-54 kubangani abayi-7 ukuze bonke bathole inombolo yamaswidi elinganayo.	

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1.10 **Ukuhlukanisa okuholela ezibalweni zamaqhezu**	Xazulula uchaze isixazululo ezinkingeni ezenzekayo ezifaka ukuhlukanisa ngokulinganayo okuholela esixazululweni esifaka amaqhezu ukuhlukanisa okukodwa isib. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{5}$, njll.		Ukugxila kumaqhezu ezibalweni zamagama kulethemu kuvumela abafundi ba: • hlukanise nokwenza amaqoqo ezinto ngokulingana; • sho izingxenye zamaqhezu; • thole amaqhezu ezinto eziphelele; • bone ukuthi iqhezu liyingxenye yokuphelele; • bhale amaqhezu njengo 1 kokuthathu. Ngalethemu abafundi bazosho amaqhezu amaningi. Kubalulekile ukuthi abafundi baboniswe amanye amaqhezu ngale kuka hhafu oyedwa nekota eyodwa. **Izibonelo zezinkinga ezingenziwa:** Ukuhlukaniselana, kuholela ezibalweni zamaqhezu • Hlukanisa oshokoledi abayi-7 kubangani aba-3 khona bonke bezothola inombolo efanayo yaoshokoledi kungasali lutho. • Amakhekhe amathathu ahlukaniselwa abangani abathathu ngokulinganayo. Emunye uthola amangaki? Ngasekupheleni kwethemu abafundi kumele bazi lomqondo olandelayo: Uma uhlukanisa okuthile ngoku: • Izingxenye ezimbili ezilinganayo zibizwa uhhafu. Ingxenye ngayinye ibizwa ngohhafu; • Izingxenye ezintathu ezilinganayo, ingxenye ngayinye ibizwa okukodwa kokuthathu; • Izingxenye ezine ezilinganayo, ingxenye ngayinye ibizwa ikota; • Izingxenye ezinhlanu ezilinganayo; ingxenye ngayinye ibizwa okukodwa kokuhlanu; kanye • ne izingxenye eziyisithupha ezilinganayo, ingxenye ngayinye ibizwa ekuko kokuyisithupha. Izibonelo zezinkinga abafundi okumele bakwazi ukuzenza kulethemu	

<table>
<tr><th>ISIHLOKO</th><th>UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA</th><th>UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1</th><th>AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI
(ezifundweni eziyi awa eleodwa nemizuzu engama-24)</th></tr>
<tr><td></td><td></td><td></td><td>Ukuhlukanisa, okuholela ezibalweni zamaqhezu
Hlukanisa oshokodeni abayi-11 kubangani aba-4 khona bonke bazothola oshokoledi abalinganayo kungasali lutho.
Amaqhezu ezinto eziqoqelwe ndawonye
Ugogo unika uKiki amawolintshi ayi- 12. UKiki wakha ujuzi ngengxenye yokukodwa kokuthathu. Mangaki amawolintshi awasebenzisile?
Lenhlobo yenkinga ingabuzwa kuphela uma abafundi sebenza izinkinga ezine kuya kwezinhlanu izinhlobo zezinkinga ‘zokucazelana okuholela ezibalweni zamaqhezu’, sebazi namagama amaqhezu.
Ukubeka amaqhezu ndawonye
Umqeqeshi webhola lezandla unikeza umdlali ngamunye uhhafu wewolontshi. Kunabadlali abayi-14. Udinga amawolintshi amangaki?
Lenhlobo yenkinga ingabuzwa kuphela uma abafundi sebenza izinkinga ezine kuya kwezinhlanu izinhlobo zezinkinga ‘zokuhlukaniselana okuholela emaqhezwini’, sebazi namagama amaqhezu.</td><td></td></tr>
<tr><td>1.11
Imali</td><td>• Ukukhumbula nokubona imali ewuhlweza yase South Africa, 5c, 10c, 20c, 50c, R1, R2, R5, nengamaphephaR10, R20, R50
• Xazulula izinkinga zemali ezimbandakanya isamba noshintshi kufinyelele ema- R99 amasenti kufinyelele 99c</td><td></td><td>Izibonelo zezinkinga abafundi okumele bakwazi ukuzenza ngasekupheleni kwethemu
Izimo zezinkinga ezisebenza ngokuxhumana okwahlukene
UHeila udayisa amagwinya nga R4 lilinye. Yakha ithebula ukumsiza ukuthola isamba esikhulu sama oda.
<table>
<tr><td>Inombolo yamagwinya</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr>
<tr><td>Inani ngama R</td><td>4</td><td>8</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
Sebenzisa ithebula ukuthola amanani amagwinya ayi 7 kanye nayi 15.
USizile ugada ingane. Ubiza R20 yezindleko zokuhamba, bese kuba R5 ngehora lokugada. Mqedelele lelithebula lakhe.
<table>
<tr><td>Inombolo yamahora</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>10</td></tr>
<tr><td>Inani ngama R</td><td>25</td><td>30</td><td></td><td></td><td></td><td></td></tr>
</table>
Qaphela ukuthi inkinga ka Heila’s kanye nenkinga ka Sedick’s zisebenza ngokwehlukana.</td><td></td></tr>
</table>

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IZIBALO EZISESIMWENI ESIKHULULEKILE				
1.12 **Amasu (izindlela zokwenza namaqh-inga)**	Sebenzisa lamasu alandelayo uma ubala: • Imidwebo noma izinto eziphathekayo isib. Izinto zokubala • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili kulingane nse • Umugqa wezinombolo		Abafundi balindeleke ukuxazulula izibalo ezisesimweni esejwayelekile esikhululekile besebenzisa lamasu: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Imigqa yezinombolo Bheka amanothi akathemu 1 no 2.	
1.13 **Ukuhlanganisa nokususa**	• hlanganisa kufinyelele e- 99 • susa kusukela e- 99 • ukusebenza kwezimpawu ezifanele (+, -, =, ☐) • ukuzijwayeza amabhondi ezinombolo kufinyelele e-20		Ngalethemu abafundi baqhubeka nokuhlakaza izinombolo khona bezokwazi ukubala. Izindlela ezingasebenziseka ukukhombisa izibalo zokuhlanganisa nokususa **Ukuhlakaza inombolo ibe yizingxenye ezincane ukwenza ukubala kubelula** **Ukusebenzisa ulwazi lobungako benani lenombolo ukuhlakaza izinombolo ngamashumi nangemivo** Ukuhlanganisa izinombolo ezingamadijithi amabili nokuhlakaza zombili izinom-bolo 43 + 36 = ☐ 43 + 36 = (40 + 3) + (30 + 6) = (40 + 30) + (3 + 6) = 70 + 9 = 79 **Ukuhlanganisa ngokuhlakaza inombolo eyodwa** 43 + 36 = ☐ 43 + (30 + 6) 43 + 30 → 73 + 6 = 79	

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1.13 **Ukuhlanganisa nokususa**			Abafundi bangahlakaza inombolo ngezindlela abakwazi ukuzikhona. Lokhu kusho ukuthi bengakwenza ngezindlela ezehlukene. 43 + 36 = □ 43 + (10 + 10 + 10 + 6) 43 + 10 → 53 + 10 → 63 + 10 → 73 + 6 = 79 **Ukususa** • Ukuhlakaza zombili izinombolo 87 - 56 = □ 87 - 56 = (80 + 7) - (50 + 6) = (80 - 50) + (7 -6) = 30 + 1 = 31 • Ukususa ngokuhlakaza inombolo eyodwa 87 - 56 = □ 87 - (50 + 6) 87 - 50 → 37 - 6 = 31 • Lindela ukuthi abanye abafundi bengahlakaza inombolo ngezindlela ezahluke-ne ukuze kube lula kubo ukubala: 87 - 56 = □ 87 - (20 + 20 + 10 + 6) 87 - 20 → 67 -20 47 - 10 = 37 - 6 = 31 **Ukusebenzisa ukuhlukanisa kabili ukuhlakaza inombolo** 69 + 12 69 + (6 + 6) 69 + 6 → 75 + 6 = 81	

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1.13 **Ukuhlanganisa nokususa**			**Ukubala uye phambili babuye baye emumva** 78 - 69 = □ Ukubala uqhubeka usukela ema 69 kuyisu elingcono ngoba izinombolo zisondelene. **Ukukhomba izinombolo eziseduze kwezihamba ngazimbili** 34 + 35 okuchaza ukuthi kuhambangakubili ama- 34 ehlanganiswa no 1 noma ukuhamba ngakubili ama-35 kususwa o 1. 34 + 34 + 1 Abafundi bangabhala amaqhinga abo besebenzisa imicibisholo 34 + (30 + 4) + 1 34 + 30 → 64 + 4 → 68 + 1 = 69 **Shintsha inombolo iphindaphinde kashumi bese ususa noma uhlanganise imivo** Bala ukhuphuke noma wehle ukusondelela e-10 58 + 19 = □ Lapha abafundi badinga ukuthi bakhethe kukho kokubili. Shintsha ama-58 noma ama-19 ukusondelela e-10. Ibona bazozikhethela. Isibalo singabhalwa kanje: 58 + 19 = 58 + 20 - 1 58 + 20 → 78 - 1 = 77 Abanye abafundi bangahlakaza amashumi amabili abe ngamaqoqo ama-2 e-10 ukubala ngokucophelela. **Ngasekupheleni konyaka abafundi kumele besekwazi uku:** Ukusebenzisa nokuqonda ulimi lokuhlanganisa Ukuqonda ukuthi ukuhlanganisa no -0 kushiya inombolo ingashintshile 75 + 0 = 75 0 + 75 = 75 75 = 75 + 0 75 = 0 + 75	

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1.13 **Ukuhlanganisa nokususa**			Ukuphendula imibuzo ebhaliwe ebekwe ngezindlela eziningi ezinjengalezi: • hlanganisa ndawonye 43 no 9 • yengeza ngeshumi ema 67 • 11 ehlanganiswa nama 83 • 80 = 62 + 8 + ☐ • Yini ama 30 ngaphezu kwa 60 • Thola isamba sama 56 ne 14 • Yengeza ishumi nambili emashumini ayisikhombisa nanhlanu • Iyiphi inombolo enkulu ngeshumi ngaphezu kwama 83 • Iyiphi inombolo okufanele uyengeze ema 45 ikuthola ama 78? • Amashumi amane ehlanganiswa namashumi ama-3 • Amashumi ama-12 ehlanganiswa nemivo eyi-8 • 45 + 10 = ☐ 45 + 20 = ☐ 45 + 30 = ☐ **Yazi ukuthi ¨ kumele inombolo engaziwa** 42 + 44 = ☐ 5 + 7 + ☐ = 80 57 + ☐ = 95 ☐ + 15 = 81 Ngosizo lezinsiza: hlanganisa izinombolo ezintathu ndawonye 26 + ☐ + ☐ = 72 Khetha ezintathu zalezi zinombolo: 15, 19, 22, 25 Zihlanganise zonke. Iziphi izamba ezahlukene ongazenza?	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.13 **Ukuhlanganisa nokususa**			**Ukuphendula emibuzweni ebhaliwe bese kuchazwa ukuthi kufikwe kanjani empendulweni:** • Hlanganisa 6, 12 ne 14. • Yini isamba se 10, 5 ne 19. **Ukuqonda ukususa ngasekupheleni konyaka.** Ngasekupheleni konyaka abafundi kumele bebesebekwazi uku: Ukuqondisisa nokusebenzisa amagama amasha ezibalo zokususa: Ukuthatha,susa, kungaki okusele, kungaphansi kangakanani...kuno, umehluko phakathi, kuningi ngokungakanani... kuno, kungaki ngaphezulu ukwenza... noku-funda nokubhala uphawu lokususa (-) Qhubeka nokuthuthukisa ukuqonda ukususa njengo: • ukususa; noku • thola umehluko phakathi. Ukuqonda ukuthi ukususa u-0 kushiya inombolo ingashintshile: 92 - 0 = 92 92 = 92 - 0 Phendula imibuzo ebhaliwe ebekwe ngezindlela ezahlukene ezinjengalezi: • 37 ususa oku-3 • Thatha 40 ku 80 • 62 susa 42 • susa 45 ku 90 • yini umehluko phakathi kwa 38 nama 57? • Kungaphansi ngokungaki i-17 ukuna 49 • Iyiphi inombolo okufanele uyisuse ku 56 ukuthola 22? • Iyiphi inombolo okufanele uyisuse ku 56 ukuthola 32? • Iyiphi inombolo okufanele uyisuse ku 56 ukuthola 22? • Thola izinombolo ezihambisanayo ezinomehluko we 10	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.13 **Ukuhlanganisa nokususa**			Yazi ukuthi ☐ kumele inombolo engaziwa. 57 - 34 = ☐ 80 - 30 = ☐ 62 - ☐ = 48 98 - 42 = ☐ 87 - ☐ = 75 13 - 6 = 15 - ☐ ☐ - 18 = 24 Qala ukuqondisisa ukuthi: 25 - 10 kuhlukile ku 10 - 25 Sebenzisa ubudlelwane phakathi kokuhlanganisa nokususa Yisho ubhale ukususa okuhambisanayo okuyikho ekuhlanganiseni okuyikho oku-nikeziwe noma kushintshana. Isibonelo: 73 + 17 =90 kusho ukuthi 90 - 17 = 73 17 + 73 = 90 kusho ukuthi 90 - 73 = 17 42 - 18 = 24 kusho ukuthi 24 + 18 = 42 42 - 24 = 18 kusho ukuthi 18 + 24 = 42 Ngaphandle kokusebenzisa izinsiza, phendula loku okulandelayo: Ingabe bewazi ukuthi 62 + 29 = 91. Yini: 29 + 62 91 - 29 91 - 62	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.13 **Ukuhlanganisa nokususa**			Ingabe bewazi ukuthi 66 - 50 = 16 Yini: 66 - 16 50 + 16 16 + 50 Bhala bese uphendule loku okulandelayo: 57 - 34 = 23 ☐ + 23 = 57 ☐ - 23 = 34 34 + 23 = ☐ 12 + 46 = 58 12 + ☐ = 58 58 - ☐ = 12 ☐ - 46 = 12 Bhala imisho yezibalo emine ehlukene usebenzise izinombolo ez-3. Isibonelo: 20, 30 no 50 20 + 30 = 50 30 + 20 = 50 50 - 30 = 20 50 - 20 = 30	

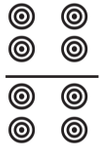
ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.14 **Ukuhlanganisa ngokuphindelela okuholela ezibalweni zokuphindaphinda**	• Ukuphindaphinda izinombolo nga-1 kufike e-10 ngaku 1, 2, 5, 3 no 4 kufinyelele ku- 50 • Sebenzisa izimpawu ezifanele(+, x, =, ☐)		**Yini ehlukile kuthemu 4?** Kulethemu abafundi bazobe bephindaphinda ngakuthathu okokuqala. Bheka amanothi kuthemu 1 ukwethulwa komqondo omusha **Ngasekupheleni kwethemu abafundi kumele bebesebekwazi uku:** Ukusebenzisa ulimi lwezibalo zokuphindaphinda ezimweni abenza kuzo: Ukuphinda kabili, ukuphindaphinda, okuphindiwe, ukuphindaphinda ngo,isamba, amaqoqo oku ukuphinda ka, isikhathi njengo (kakhulu, kade, kabanzi...), kabili, ngokuphindwe kathathu, nokufunda nokubhala uphawu lokuphindaphinda (x) Sebenzisa lolulimi ukwenza izibalo zokuphindaphinda Ukuqonda ukuphindaphinda njengokuhlanganisa ngokuphindelela Isibonelo Okuyisithupha okuhlanganiswe kathathu kuyafana nalokhu: 6 + 6 + 6 = 18 Amaqoqo ama-3aphindwe ka 6 = 18 Oku-3 kuphindwe ka- 6 = 18 6 x 3 = 18 3 x 5 = 18 Qondisisa ukuphindaphinda njengokuchaza ukuhleleka ◎ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ◎ ◎ 5 x 3 =15 ◎ ◎ ◎ ◎ ◎ ◎ 3 x 5 = 15	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.14 **Ukuhlanganisa ngokuphindelela kuholela ezibalweni zokuphindaphinda**			Phendula imibuzo efana nale: Okuhlanu okune Ukuphinda kabili oku-6 Oku-6 ukuphinde ka- 5 Izinto zokubala ezintathu emugqeni. Kunemigqa e-4. Zingaki izinto zokubala sezizonke Oku-2 uphindaphindwe ka-4 Oku-8 kuphindweka-2 Ukubona ukusebenza kwesibambeli ☐ esimele inombolo engaziwa. 3 amaqoqo oku 2 kwenza 6 noma 3 kuphindwe 2 kwenza 6 noma 3 x 2 = ☐ 4 amaqoqo oku 3 kwenza 12 noma 4 kuphindwe 3 kwenza 12 noma 4 x 3 = ☐ 6 amaqoqo oku 3 kwenza 18 noma 6 kuphindwe 3 kwenza 18 noma 6 x ☐ = 18 7 + ☐ = 14 2 amaqoqo oku 7 = ☐ 2 + ☐ + ☐ + ☐ + ☐ + ☐ + ☐ = 14 ☐ x 7 = 14 1 x 2 = ☐ 2 x 2 = ☐ 3 x 2 = ☐ 1 x 5 = ☐ 2 x 5 = ☐ 3 x 5 = ☐	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.16 **Izibalo zekhanda**	**Ulwazi lwezinombolo: Uhla lwezinombolo kufinyelela ku- 99** • Hlela iqoqo lezinombolo ezikhethiwe. • Qhathanisa izinombolo kuya kuma -99bese usho ukuthi iyiphi enkulu noma encane ngo 1, 2, 3, 4, 5 ne-10 **Khumbula ngokushesha:** • Khumbula izindlela zokuhlanganisa nokususa kuyofinyelela e-20 • Hlanganisa noma ususe kusukela ngama-10 kusukela e-0 kufinyelele e-100 **Amaqhinga okubala ngekhanda** Sebenzisa amaqhinga okubala ukuhlanganisa nokususa ngempumelelo: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma uye emuva		**Izibonelo zemibuzo engabuzwa:** **Ulwazi Lwezinombolo** **Amagama ezinombolo nezimpawu zazo** Bamba uphakamise ikhadi noma ubhale phansi amagama ezinombolo. Khetha umfundi ozobhola zoqondanisa nenombolo. **Okungaphezulu nokungaphansi** Yini • 1 ngaphansi kwe 70 • 1 ngaphezu kwe 80 • 3 ngaphansi kwa 51 • 4 ngaphansi kwa 67 • 5 ngaphansi kwe 85 • 10 ngaphezu kwe 90 • 10 ngaphansi kwe 80 Iyiphi i-alfabheti yesi- 5? Iyiphi inyanga ye- 9yonyaka? **Ukuhlela nokuqhathanisa** Ikuphi okungaphezulu: 21 noma171? Nginike inombolo ephakathi kuka 154 no 159.	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.16 **Izibalo zekhanda**	• Umugqa wezinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Ukwakha nokuhlakaza Sebenzisa ubudlelwane phakathi kokuhlanganisa nokususa		**Amaphuzu okuhlanganisa nokususa:** • Ukwazi ngengqondo wonke amabhondi okuhlanganisa nokususa kufinyelele e-20 □ + Δ = 20 □ + Δ = 16 19 = □ - Δ Okuyikho ngokuhlanganisa nokususa zonke izinombolo kufinyelele e-20 1 + 11 = 12 11 + 1 = 12 2 + 10 = 12 10 + 2 = 12 3 + 9 = 12 9 + 3 = 12 18 - 4 = 14 18 - 14 = 4 18 - 5 = 13 18 - 13 = 5 18 - 6 = 12 18 - 12 = 6 Khumbula ngokushesha ukuhlanganisa okuphindwe kabili kufinyelele e-20. Loku kumele kufake ukususa okuyikho okuqondene. • 1 + 1 = 2 • 2 + 2 = 4 • 3 + 3 = 6 • 4 + 4 = 8 • 5 + 5 = 10 • 6 + 6 = 12 • 7 + 7 = 14 • 8 + 8 = 16 • 9 + 9 = 18 • 10 + 10 = 20	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.16 **Izibalo zekhanda**			Ngikhombise inombolo engingayengeza ukwenza ama 20 (bhala phansi usebenzisa amakhadi obungako benani lenombolo). • 8 • 2 • 9 • 15 • 3 Ngikhombise inombolo esele uma ….kuthathiwe kokunga 20 (bhala phansi usebenzisa amakhadi obungako benani lenombolo). • 5 • 18 • 0 • 14 • 7 **Amaqhinga okubala:** Bheka amanothi kuthemu 2.	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.17 **Amaqhezu**	• Sebenzisa usho amaqhezu ezimweni ezejwayelekile nezaziwayo okufaka uhhafu, ikota, okukodwa kokuthathu, nokukodwa kokuhlanu • Bona amaqhezu ezimweni ezidwetshiwe • Bhala amaqhezu njenge 1 uhhafu, 2 kokuthathu	• Sebenzisa usho amaqhezu ezimweni ezejwayelekile nezaziwayo okufaka uhhafu, ikota, okukodwa kokuthathu, nokukodwa kokuhlanu • Bona amaqhezu ezimweni ezidwetshiwe • Bhala amaqhezu njenge 1 uhhafu, 2 kokuthathu	**Yini okwehlukile kuthemu 4?** Ngalethemu yesi-3 abafundi bazogxiliswa ekutheni lihlangana kanjani igama leqhezu enombolweni elingana nezingxenye zokuphelele okuhlukanisiwe. Imidwebo enhlobonhlobo isetshenzisiwe ukwakha ukuqondisisa okuqhubekayo. Abafundi baqhubeka nokusho amaqhezu emdwebeni kulethemu. Baphinda basho amagama ezingxenye uma benza izibalo. Izingxenye zamaqhezu ezikhonjiwe zibhalwa kanje 1kuhhafu, 1 kokuthathu, 1 ikota. Kulethemu kufanele kugxilwe kokuphelele. Abafundi bazokwazi uku: Qedela imisho Ohhafu ababili bafana ne _____ kokuphelele Okuthathu kokuthathu kufana ne ____ kokuphelele Okune kwekota kufana ne ____ kokuphelele Ngalethemu abafundi bazothola amaqhezu eqoqo lezinto. Isibonelo: Abafundi bazothola izinto zokubala ezibekwe ngokuhleleka: 1 uhhafu we 8 wezinto zokubala.  Abafundi bangahlukanisa izinto zokubala ezi- 8 kube amaqoqo ama-2 oku- 4. 	

ISIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ezifundweni eziyi awa eleodwa nemizuzu engama-24)
1.17 **Amaqhezu**			Vumela abafundi ukusebenzisa izinto eziphathekayo okwenza loku nokuzibeka ngohlelo olufanele. Ngasekupheleni kwethemu abafundi kumele bebesebekwazi ukuthola: • 1 uhhafu wezinto eziqoqiwe; • 1 ikota yezinto eziqoqiwe; • 1 kokuthathu kwezinto eziqoqiwe; kanye • 1 kokuhlanu kwezinto eziqoqiwe.	

ITHEMU YESI-4 YEBANGA LESI- 2 2. AMAPHETHINI, UBUDLELWANO, I-ALJEBHRA				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO** **Okugxilwa kukho ngeThemu ye - 2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ihora nemizuzu enga - 24 isifundo)
2.1 **Amaphethini ejiyometri**	**Kopisha, wandise bese uchaza** Kopisha, wandise ubuye uchaze ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo; kanye • Namaphethini alula enziwe ngokudweba imigqa, izimo noma izinto **Sungula uchaze amaphethini akho** Sungula amaphethini akho ejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto **Amaphethini asizungezile** Bona, chaza ngamagama ubuye ukopishe amaphethini ejiyometri • Ngokwemvelo • Kwimpilo yesimanje yansukuzonke • Amasiko angamagugu	**Amaphethini asizungezule** Khomba,uchaze ngamagama ubuye ukopishe amaphethini ejiyometri • Ngokwemvelo • Empilweni yesimanje yansukuzonke • Amasiko angamagugu	Abafundi bazosebenza ngamaphethini emvelo, awesimanje nansukuzonke kanye nawamasiko angamagugu kusukela eBangeni loku - 1 kuya kwelesi - 6. Lokhu kusho ukuthi akudingeki ukuthi uchithe isikhathi ngalesisihloko. Kufanele ukuthi kubuye kukhethwe imisebenzi kanye namaphethini alungele iBanga ngalinge. Inhlobo eyodwa yamaphethini abafundi ingabukeka njengomugqa ohlukanise kabili kufane nxa zombili, isib. Amacembe amaningi nobuso bezilwane kuwumugqa ohlukanisa kabili kufane nxa zonke. Kanjalo nezinambuzane uma uzibuka ngaphezulu kanye namaphethini kwizinyoni eziningi uma uzibuka ngaphansi. Abafundi bangabuka amaphethini: • Uthango (oluwucingo, izingodo); • Umsebenzi wezitini kanye namathayili aphansi; • uphahla; • izimpahla kanye nezindwangu; • amapuleti, izinkomishi, amasosa; • amabhola; • izilwane ezifana nezinkomo, izimvemvane, amadumbe, indlulamithi, ingwe, izintuthwane, izinyoni; • izimbali nacembe; • iphepha lokuhlobisa ubonda olwenziwe ngephepha elihlotshiwe elitholakala ikakhulukazi emikhukhwini. • Umsebenzi wobuhlalu wesimanje nowakudala; kanye • Nezitsha zobumba/dongo noma obhasikidi abelukiwe **Bangawachaza kanjani abafundi amaphethini abawathola lapho behlala khona?** Kunezindlela ezahlukene zokuchaza amaphethini esiwathola lapho sihlala khona. Amaphethini amaningi atholakala lapho sihlala khona enziwe ngemigqa, ngezimo noma izinto. Isimo noma izinto azidingi ukuxhumana nejiyometri eziyizimo ezi-2-D nezi-3-D okusethsenzisiwe eBangeni lesi - 2. Bonke abafundi babheka: • Lokho ngokuphindelela, njengamachashaza, imigqa, nanoma iyiphi inhlobo yesimo; nokuthi	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
2.1 **Amaphethini ejiyometri**			• Iphindeke kanjani. **Izibonelo:** - Imigqa eqondile enqamula eminye, imigqa ehambisana nengezansi lento/ lendwangu noma umugqa osuka phezulu/ onqamulayo, imigqa ehamba emilenzeni yamabhulukwe, - Imigqa ezungezayo njengaleyo etholakala uma usika u-anyanisi. - Imigqa engaqondile, njengaleyo eseminweni kanye nedumbe, nemibimbi yendlovu naleyo ekubantu asebegugile. - Imigqa ejikajikayo efana naleyo etholakala uma usika ikhabishi. - Amachashaza afanayo, amachashaza ahlukene ngokulinganayo - Izimo ezilinganayo, isib. iphethini yezitini obondeni naphansi, - Izimo ezinombala ofanayo - Amaphethini enziwe ngesimo esifanayo ebheke ezindaweni ezehlukene, isib. unxantathu obheke phezulu naphansi owenziwe ngobuhlalu besintu, izitini zaphansi ezibheke ezindaweni ezahlukene. - Amaphethini enziwe ngezimo ezahlukene, njengawendlulamithi.	1 isifundo

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO Okugxilwa kukho ngeThemu ye - 2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ihora nemizuzu enga - 24 isifundo)
2.2 **Amaphethini ezinombolo**	**Kopisha, wandise ubuye uchaze** Kopisha,wandise ubuye uchaze uhla olulula lwezinombolo kufinyelele okungenani ema - 200. **Sungula awakho amaphethini** Sungula awakho amaphethini ezinombolo.	**Kopisha, wandise ubuye uchaze** Kopisha, wandise ubuye uchaze okulula ukulan-delanalwezinombolo kufinyelele okungenani ema - 200. Ukulandelana kufanele kukhombise ukubala uyaphambili uye nase-muva ngo-: • Kukodwa, kusukela kunoma iyiphi inom-bolo ephakathi kwe - 0 no - 200 • Ngokwamashumi kusukela kunoma iyiphi inombolo phakathi kwe - o nama - 200 • Ngakuhlanu kusukela kunoma iyiphi inom-bolo ephakathi kwe - 0 kufinyelela ema - 200 • Ngakubili kusukela kunoma iyiphi inom-bolo ephakathi kwe - 0 kufinyelela ema - 200 • Ngakuthathu kusukela kunoma iyiphi inom-bolo ephakathi kwe - 0 kufinyelela ema - 200	Buka amanothi eThemu yoku - 1, kodwa ukhulise uhla lwezinombolo lufinyelele ema - 200	Izifundo ezi - 3
2.2 **Amaphethini ezinombolo**		• Ngakune kusukela kunoma iyiphi inombolo ephakathi kwe - 0 kufinyelela ema - 200 **Yakha awakho amaphethini ezinombolo**		

ITHEMU YESI-4 YEBANGA LESI-2 3. INDAWO NESIMO (IJIYOMETRI)				
IZIHLOKO	**UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI ESINQUNYIWE** (esifundweni sehora eli 1 nemizuzu engama 24)
3.2 **Izinto ezi-3-D**	**Uhla lwezinto** Bona usho izinto ezi-3-D ezilapha ekilasini nezithombe • Isimo sebhola (Okusambulunga,) • Izimo ezisabhokisi (iprizimu) • amasilinda **Izimpawu zezinto** Chaza, uhlele bese uqhathanisa izinto ezi-3-D ngalokhu-: • ubungako • izinto ezigingqikayo • izinto ezishelelayo **Imisebenzi ekugxiliwe kuyo** • Bukela bese wakhe izinto ezi- 3-D. Izinto usebenzisa izinto eziphathekayo njengezimo ezisikiwe ezi-2-D amabhuloki, okusetshenzisiwe nekhithi yokwakha nezinye izinto ezi-3-D	**Uhla lwezinto** Bona usho izinto ezi-3-D ezilapha ekilasini nezithombe • Isimo sebhola (Okusambulunga,) • Izimo ezisabhokisi (iprizimu) • amasilinda **Izimpawu zezinto** Chaza, uhlele bese uqhathanisa izinto ezi-3-D ngaloku-: • ubungako • izinto ezigingqikayo • izinto ezishelelayo	**Okunconywayo okugxilwa kukhoku Themu- 4** Ukusebenza kuhlanganiswe nemisebenzi ebhaliwe.	Isifundo esi-1

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
3.3 **Izimo-2-D**	**Uhla lwezinto** Bona usho izimo ezi-2-D • indilinga • onxantathu • izikwele • onxande **izimpawu zezimo** Chaza uhlele bese uqhathanisa izimo ezi-2-D ngalokhu: • ubungako • umbala • isimo • amacala aqondile • amacala asandilinga	**Uhla lwezinto** Bona usho izimo ezi-2-D • indilinga • onxantathu • izikwele • onxande **izimpawu zezimo** Chaza uhlele bese uqhathanisa izimo ezi-2-D ngalokhu: • ubungako • umbala • isimo • amacala aqondile • amacala asandilinga	**Bheka amanothi kuThemu 2** KuleThemu kubukezwa kuhlanganiswa umsebenzi wezimo ezi-2-D.Kugxiliswa ekubukeni nokubiza ngamagama izindilinga, izikwele,onxande, nonxantathu bese bekhuluma ngamacala aqondile nazindilinga.Benza imisebenzi kuleyo ekuiThemu 2, kodwa bagcine begxilisa kuzimpawu zezimo namagama azo.	Izifundo ezi-3
3.4 **Okufana nse nxazombili**	**Okufana nse nxazom-bili** Bona udwebe umugqa okufana nse nxazombili ngejiyometri nokungesiwo izibalomdwebo.	**Okufana nse nxazombili** Bukela udwebe izimo ulayini ofana nse ngejiyometri nokungesiwo izibalomdwebo.	Bheka amanothi kaThemu 2.	isifundo1

ITHEMU YESI-4 YEBANGA LESI- 2 4.ISILINGANISO				
IZIHLOKO	**UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI ESINQUNYIWE** (esifundweni sehora eli 1 nemizuzu engama 24)
4.1 **Isikhathi**	**Ukukhuluma ngesikhathi** • ukubiza ngamagama ukulandelanisa izinsuku zamasonto • Ukubiza ngamagama izinyanga ngesizulu • Izinsuku zokuzalwa, imigubho yezenkolo, amaholide, izigameko zomlando, izigameko zesikole ekhalandeni. • Khuluma ngesikhathi ngamahora ngohhafu wehora nangekota yehora. **Ukubala ubude ngesikhathi nokudlula kwaso** • Sebenzisa amamkhalenda ukubala ubuye uchaze ubude ubude besikhathi ngezinsuku zeviki • Sebenzisa iwashi ukubala ubude besikhathi ngamahora uhhafu wehora noma amakota.	**Ukukhuluma ngesikhathi** • Khuluma ngesikhathi ngamahora ngohhafu wehora nangekota yehora ewashini lezinti **Ukubala ubude ngesikhathi nokudlula kwaso** • Sebenzisa iwashi ukubala ubude besikhathi ngamahora uhhafu wehora noma ikota yehora.	Abafundi bayaqhubeka ngokukhuluma besebenzisa ubude besikhathi nokulandelanisa sona Ngesikhathi sokufundisa ikilasi lonke nokugxila emaqenjini, abafundi bayakhuluma ngezinsuku zamasonto, izinyanga zonyaka,namhlanje zingaki izolo nakusasa.Abafundi bayazijwayeza ikhalenda ngokufaka lokhu; • Izinsuku zokuzalwa; • imigubho yezenkolo; • izigameko zomlando; • izigameko zesikole • Amaholide ekhalendeni. **Shono isikhathi ngamahora,ngohhafu wehora nekota yehora** Bheka amanothi kaThemu 3	Isifundo 1

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
4.2 **Ubude,**	**Isilinganiso esingahlelekile** • Qagela, ulinganise, uqhathanise, uhlele bese ubhala ubude usebenzisa isilinganiso esingalinganisiwe isib, isandla, amanyathelo, ubude bepensela, izintozokokubala.njll. • Chaza ubude bezinto ngokubala uqala ngokuqagela ukuthi bungakanani ubude bamayunithi angahleliwe • Sebenzisa ulimi ukhuluma ngokuqhathanisa isib, kude xaxa, kufishane xaxa, kuphakeme xaxa kubanzi xaxa **Ukwethula isinganiso esingahlelekile** • Qagela, ulinganise, uqhathanise, uhlele bese ubhala ubude ngamamitha (kungaba amamitha ngezinduku noma ubude bentambo ngamamitha) ngesilinganiso esilingene sobude.	**Ukwethula isinganiso esingahlelekile** • Qagela, ulinganise, uqhathanisa, uhlele bese ubhala ubude usebenzisa amamitha (izinduku zamamitha,noma ubude bentambo ngamamitha) njenge yunithi engahleliwe	**Yini umahluko kuThemu 1** KuThemu 1 kuyancomeka ukuba abafundi bagxiliswe ekuqageleni, belinganisa, beqagela, bese bebhala ubude, ububanzi kanye nokuphakama ngamayunithi angahleliwe beqala ISILINGANISO ngamamitha. KuThemu 4 bangagxila ngokuqagela, isilinganiso, baqagela, nokubhala ubude,ukuphakama, nobubanzi ngamamitha kuThemu 1. Bheka amanothi kuThemu1 Lokhu kungahlanganiswa nomsebenzi obhalwayo.	isifundo1

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
4.3 **Isisindo**	**Isilinganiso esingahlelekile** • Qagela, ulinganise, uqhathanise, uhlele bese ubhala isisindo usebenzisa isilinganiso esingalinganisiwe. nokuzimelela isib, amabhuloki, izitini njll, • Sebenzisa ulimi lokukhuluma ngoku-qhathanisa, isib, kulula, kuyasinda, kulula ngokuthe xaxa, kuyasinda ngokuthe xaxa U**kwethula isilinganiso esingahlelekile** • Qhathanisa, uhlele bese ubhala isisindo esiveziwe ephaketheni ezinto ezithengisayo ngokwamakilogremu isib amakilogremu ama 2 erayisi,ne1 kilogremu likafulawa • Balinganisa izisindo zabo ngokuseben-zisa isikali sasendlini yokugeza.	**Ukwethula isilinganiso esingahlelekile** Abafundi babhala imisebenzi ngokuhlanganyela nokufunda izithombe; • Izinto ezine sisindo esibhalwe kuzo, • Isisindo sezithombe esikalini sasendlini yokugeza lapho uthi lukhomba ikilogremu liphelele.	Kuthemu 2 • Kulinganiswe isisindo ngokungahlelekile besebenzisa ukuzimelela; • Kuhlelwe izinto ngokwezisindo ezihalwe emaphaketheni • Kufundwa izikali zasendlini yokugeza (izikali zombili nezithombe zezikali) bheka amanothi kathemu 2 Kuthemu 4 abafundi kumele bahlanganise amakhono okufunda isikali sasendlini yokugeza nezithombe kusondezela kukilogremu eliphelele.Lokhu kungahlanganiswa nomsebenzi obhalwayo.	isifundo1

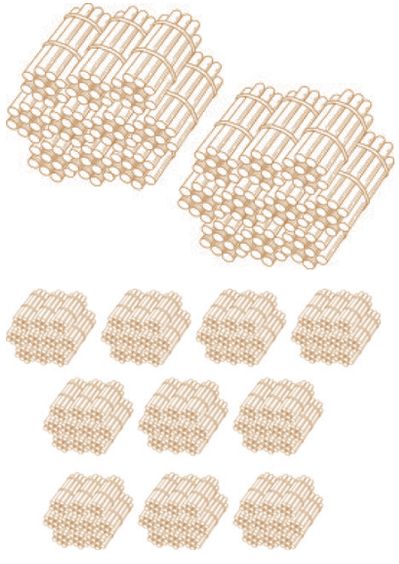
IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
4.4 **Umthamo**	**Isilinganiso esingahlelekile** • Qagela ulinganise, uqhathanise uhlele umthamo wesitsha isib. umthamo (isitsha esingakumumatha uma sigcwalisiwe) noma okumumethwe isitsha ngokusebenzisa isilinganiso esingalinganisiwe isib. isipuni namankomishi • Chaza umthamo wesitsha ngokubala ukuthi mangaki amayunithi angahleliwe angagcwalisa lesositsha isib. ibhodlela lingagcwala izinkomishi ezi-4. **Ukwethula isinganiso esingahlelekile** • Qagela, linganisa, uqhathanise,uhlele bese ubhala umthamo waleyonto ngokulinganisa ngamalitha	**Ukwethula isinganiso esingahlelekile** Abafundi babhala imisebenzi ngokuhlanganyela nokufunda izithombe; • Imiphumela ngomthamo obhaliwe kuwo ngokuhlela ngokulandelana okuhleliwe. • Izithombe zojeke lapho umthamo usondezelayo kulitha e-1 noma 2 kulayini obhaliwe. • Okulindelekile ukuthi abafundi bazofunda inombolo leyo ebhaliwe duze komugqa wesindi • Chaza umthamo njengokuthi cishe kube (gcwale, ngaphansi, ngaphezulu njll) befunda kujeke	Ngesikhathi sokusebenza ngokuzimela abafundi bangaqhubeka ngoku- • Qagela nokulinganisa baqhathanise, bahlele bese bebhala umthamo wesitsha noma okumumethwe yisitsha leso besebenzisa isilinganiso esingalinganisiwe. Ukulandela uhlelo lwezinto ezizosetshenziswa njengokubhaka,usebenzisa isimo esijwayelekile lapho abafundi bezozijwayeza khona UKULINGANISA. Khetha uhla lwezinto abazozisebenzisa ngezithako ezinikwe ngamankomishi amathisipuni,noma amayunithi angenasilinganiso. • Qhathanisa uhlele umthamo wamabhodlela ahlukene nohla lwezinto ozozithenga lapho umthamo azokhangisa ngawo ephaketheni lelo. • Ukusebenza ngo 1litha angamabhodlela, noma 1ilitha lojeke ukuqagela nokulinganisa uqhathanisa ubhala. Umthamo wezitsha noma okumumethwe yilezo zitsha ngamalitha. Bheka amanothi kuthemu 3 Abafundi kumele banikwe umsebenzi obhaliwe ohlanganisa nokufunda izithombe • Imiphumela yomthamo obhaliwe kuwona ukuze kuhlelwe ngokulandelana kwawo • Izithombe zojeke lapho umthamo usondelene nenombolo 1 yelitha noma 2 wamalitha kulayini obhaliwe Okulindelekile ukuba abafundi bodwa bafunde inombolo eseduze kolayini. Lokho kuchaza ukuthi umthamo (cishe ugcwale.ngaphezulu ngaphansi. kancane, noma kuyalingana ngamalitha) befunda ejekeni. **Isilinganiso somthamo njengesimo esejwayelekile sokuxazulula izinkinga nokubala** Esikhathini esimiselwe iziNombolo iziMpawu noBudlelwano bazo abafundi sebengaxazulula izinkinga besebenzisa isimo esijwayelekile ngoku; • Isilinganiso esingahlelekile somthamo nokumumethwe isib. Ugogo usebenzisa izinkomishi ezi 2 zobisi ukwenza uphudingi uma engaziphinda kabili izinto azisebenzisile, angadinga ubisi olungakanani? • Amamlitha	isifundo1 l

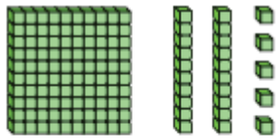
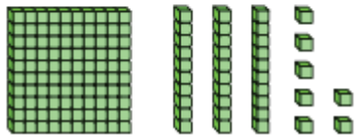
IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
4.4 Umthamo	• Qhathanisa uhlele, ubhale umthamo wezinto eziveziwe ephaketheni ngokwamalitha isib. Amalitha 2 obisi,ilitha 1yobisi, amalitha 5 kapende.		Bhekisisa ukuthi ithemu inohlelo lwezinombolo ezifanele lona;kanjalo nohlobo lwezinkinga oluhlukene.	

ITHEMU YESI-4 YEBANGA LESI-2 5.ULWAZI OLUQOQELWE				
IZIHLOKO	**UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI ESINQUNYIW** (esifundweni sehora eli 1 nemizuzu engama 24)
5.4 **Qoqa nokuhlela ulwazi**	**Ukuqoqa nokuhlela ulwazi** • Ukuqokelelwa kolwazi ngekilasi lakho noma isikole ukuphendula imibuzo ezobe ibuzwa uthisha • Ukuhlela ulwazi ngamathali.			
5.5 **Bhala okumele ulwazi**	**Ukubhala okumele ulwazi** Ukubhala okumele ulwazi ngegrafu yezithombe			
5.6 **Hlaziya nokuhumusha ulwazi**	**Ukuhlaziya nokuhumusha ulwazi** Ukuphendula imibuzo ngolwazi egrafini yezithombe.	**Ukuhlaziya nokuhusha ulwazi** Ukuhlaziya ulwazi kulokho okumele ulwazi olubhaliwe.	**Ukuhlaziya nokuhumusha ulwazi olunikiwe** Kulesisikhathi sonyaka,abafundi kumele ngabe sebeyijwayele igrafu yezithombe. kuyancomeka ukuthi kuthemu 4abafundi bagxiliswa ekuhlaziyeni ulwazi.Nika abafundi ulwazi lokuhlaziya okungenani eyo-1igrafu yezithombe.. Abafundi abaphendule imibuzo leyo ezobuzwa uthisha ngegrafu nethebula. Bheka uthemu 1nemibuzo efanele nenhlobonhlobo.	1isifundo

3.5.3 INCAZELO YOKUQUKETHWE EBANGENI LESI-3

YEBANGA LESI- 3 ITHEMU YOKU-1 1. IZINOMBOLO, IZIMPAWU NOBUDLELWANE BAZO				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1**	**AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
EBangeni 3 abafundi bazohlanganisa bephetha abakufunde eBangeni 2 bese besenzisa lamakhono ekusebenzeni izinombolo phakathi kuka 0 kuya e - 999. Abafundi manje eBangeni lesithathu 3 bazokwenza lokhu • Bazofunda baphinde babhale izinombolo nezimpawu kanye namagama ukuya e 1000 • Buqhubeke nokukhomba nokuzibeka esikhundleni esifanele. • Besebenzisa ulwazi lwabo lobungako benani lenombolo ukuthola amakhulu, amashumi nemivo bese bechaza ubudlelwano bakho. • Ukuhlukanise izinombolo ezihamba ngantathu. Bazosebenzisa ulwazi lwabo lobungako benani lenimbolo ukuqathanisa nokuhlela izinombolo bese benika izizathu ngokukhetha kwabo. • Baqhubeke nokubala beya phambili babuye baye emumva, ngezikhawu zama 20,25, 50 kanye 100; bazoqala ke manje babona ubudlelwano phakathi kokubala ngaku 2 kanye noku 4 • Babe nolwazi lokubala isamba esikhulu sezinto ngamaqoqo. Sebeyakwazi kubala gokuhleleka, ngokuyikho futhi bangakwazi ukunika indlela yokubheka imiphumela; • Behlanganisa babuye basuse izinombolo ngekhanda uze ufike kuma 50 • Bexazulula izinkinga ezahlukene bese befunda ukuhlela izimpendulo ezibhaliwe ngendlela ehlelekile. • Bakhethe izimpawu ezifanele uma bexazulula izinkinga ezimweni ezijwayelekile. • Bangabhala ukubala kwabo besebenzisa ukhlananisa (+), ukususa (-) kanye nokulingana (=). Bayakwazi ukuchaza izimpendulo zabo nezindlela abazisebenzisile. • Besebenzisa izindlela ezihlelekile ukubhala izibalo zokuhlanganisa nokususa. Isibonelo:bazohlakaza eyodwa noma ezimbili kuhlanganisa nokususa; bese bekwazi ukukhetha ohlwini lamaqhinga abazolisebenzisa ukuxazulu inkinga. Isibonelo: ukususa: 135 - 131, umfundi uzokwazi ukususa ngokubala eqhubeka noma eya emumva. • Inqubo mgomo ilindele ukuthi umfudi webanga 3 uzisebenzisa kancane izinto zokubala eziphathekayo ukumela ukulanganisa nokususa. Ngokuphela konyaka balindeleke ukuba bakwazi ukuhlanganisa nokususa besebenzisa indlela yephepha nepensela. • Uma umfundi efika eBangeni lesi 3 kufanele azi ubungako benani lenombolo nokuhlakaza izinombolo ukuze akwazi ukwenza izibalo. Umfundi uzobeseqala ukwazi ukuthi ama 78 angama ayimivo engama 78 namashumi ayi 7 nemivo eyi 8.Umfundi akadingi izinto zokubala eziphathekayo ukumsiza ukwazi lokhu. EBangeni 3 abafundi bazodinga amathuba aqhubekayo ukwenza bephindelela ukuhlakaza izinombolo ukuze bazi ubungako benani lezinombolo bese besebenzisa lolulwazi ukuhlakaza izinombolo ma behlanganisa futhi besusa.				

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.1 **Ukubala izinto**	**Bala ngokujulile izinto eziphathekayo** Qagela bese ubala ngokwethembeka kufinyelela okungenani izinto ezi- 1000 lezinto. Iqhinga lokwenza amaqoqo liyakhuthazwa.	• Yenza amaqoqo ezinto ezingaba ama 200 kuqagela nokubala ngokwethembeka • Nikeza ukuqagela okusondelele kwezinto ezingabhekwa ngokuzibala.	EBangeni lesi 3 abafundi baqhubeka nkubala izinto zansuku zonke. Uhla lwezinombolo lukhula lufike e-1000 ngokuphela konyaka. Lokhu kusho ukuthi kudinga ukuketha ngokucophelela izinsizakufundisa ezizosetshenziswa: • Amabhuloki kaDienes • Amakhadi obungako lenani lenombolo Ngethemu lokuqala abafundi benza bephindelela bebukeza ukubala izinto kufinyelela e- 200. Kugxilwa ekwenzeni amaqoqo ezinto. Abafundi kufanele babe nokuqonda ukuthi kungcono, kuyashesha futhi kusebenza kangcono ukubala ngamaqoqo okuyishumi, amashumi amabili, amashumi amahlanu nekhulu nangakunye. Baqala ukubala ngamakhulu, uya phambili ubuye uye emumva ngethemu yokuqala. Ukulekelela ukubala bephimisela, abafundi bangahlela izinto ngamaqoqo ngokuyi 100. Isibonelo Iqoqo ngalinye likhombisa okuyikhulu.  Ngalethemu kanye nonyaka wonke abafundi kumele benziwe bazi ukuthi ukubala izinto kuzosiza ezibalweni.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.1 **Ukubala izinto**			**Isibonelo** Ukubala izinto ngokuzihlakaza zibe ngamaqoqo okuyishumi, 20, 50 ngisho namakhulu azobenza abafundi bahlakaze izinimbolo uma behlanganisa noma besusa. Ukuhlanganisa 362 + 527, abafundi bangayihlakaza inombolo ngobungako bamanani njenge 362 + 527 =(300+60+2)+(500+20+) Abafundi bangabala ngamakhulu ngoba bakwenzile lokho ngesikhathi bebala izinto ngamaqoqo amakhulu. Abafundi bazobala ngamashumi (benzile kanjalo kusukela eBangeni 1) kanye nangakunye. Abafundi kufanele baqonde ukuthi kungani bechitha isikhathi bebala izinto.Ukuxhumana kufanele kwenziwe kucace. Ngalethemu abafundi bangasebenzisa amanhuloki kaDiens ukumela izinombolo noma amabhloki ayishumi. Abafundi basebenzisa kezizinsiza kufunda eBangeni 2   Abafundi kufanele bakwazi ukuqedela lesisitatimende esilandelayo: Inani lamabhuloki ayi 10 a_____ Abafundi bangasebenzisa amakhadi obungako benani ukukhombisa ubungako bedijithi ngayinye. Izinhlobo zalemisebenzi zigxile ekukhombiseni ukuthi akukona ukubala izinto kuphela. Ngalesosikhathi abafundi ba: • Bayokuqonda ubungako bamadijithi. • Ukuhlakaza nokwakha izinombolo, kanye • Nokufunda izimpawu zezinombolo.	

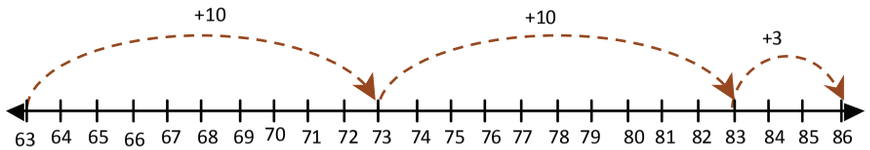
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.2 **Bala uyephambili ubuye uye emumva**	**Bala uyephambili ubuye uye emumva nge:** • Ngezikhawu ezinikiwe eBangeni 2 ngokukhula kohla lwezinombolo kusuka kunoma iyiphi inombolo oyinikiwe. • Ngama 20, 25, 50, 100 ukuze kuyofika okungenani e1000	**Bala uyephambili ubuye uye emumva nge:** • Ngezikhawu ezinikiwe eBangeni 2 ngokukhula kohla lwezinombolo. • 100 kuyofika okungenani ema 500	**Yini okwahlukileyo eBangeni 2?** Abafundi babala nge 100s okokuqala. Bakwenza lokhu kuyofika e 500. Abafundi badinga izinsiza ezizoba isizida seshumi njenge; • Ubuhlalu bokubala • Amabhuloki kaDiens • Umugqa wezinombolo • Igridi yezinombolo Ukubala ngokweqa kudina kuxhunyaniswe nethebula lokuphindaphinda. Ukubala ngaku 4 kuzosiza abafyndi uma bethi: • Oku 4 oku 1 kwenza oku - 4 • Oku 2 okune kwenza okuyi - 8 • Oku 3 okune kwenza oku - 12 Lokubala weqa kusekela ulwazi lokuphindaphinda futhi kusize abafundi uma beqedela ukulandelana kwezinombolo.	
1.3 **Amagama nezimpawu zezinimbolo**	**Khomba, bona bese ufunda izinombolo** • Khomba, bona bese ufunda zimpawu zezinombolo 0 - 1000 • Bhala izimpawu zezinombolo 0 - 1000 • Khomba, bona bese ufunda amagama ezinombolo 0-1000 • Bhala amagama ezinombolo 0 kuya e -1000	**Khomba, bona bese ufunda izinombolo** • Khomba, bona bese ufunda zimpawu zezinombolo 0 - 500 • Bhala izimpawu zezinombolo 0 - 500 • Khomba, bona bese ufunda amagama ezinombolo 0-250 • Bhala amagama ezinombolo 0 kuya e -100	**Yini umehluko eBangeni 2?** Ngalethemu abafundi babona, bafunde bese bebhala izimpawu zezinombolo kufike ema 500. Bafunda amagama ezinombolo kufike ema 250 bese bebhala amagama ezinombolo kufike e 100. Ukufunda nokubhala izimpawu zezinombolo kuyenziwa kuphindelelwe uma: • Bebala izinto • Bebala beya phambili babuye baye emumva • Beqedela ukulandelana kweziombolo; kanye • Nokuhlela nokuqhathanisa izinombolo Kufanele kuqikelelwe ukusho izinombolo ngendlela eyiyo; kufanele kuthiwe 323 njenge “amakhulu amathathu, amashumi amabili nantathu”, hhayi njenge “323” Uma ubhala izinombolo ezihamba ngantathu izinombolo eziphakathi kwe 100 no 110; 200 ne210; 300 ne 310, 400 ne 410, idijithi esesikhundleni sokuyishumi u 0. Abanye abafundi bakuthola kunzima ukubhala lezizimpawu zezinombolo uma benikwe inombolo ngamagama. Isibonelo, Kungabanzima kwabanye abafundi ukubhala “amakhulu amathathu nane” ngezimpawu, bangabhala ama 3004. Amakhadi amele ubungako benani lenombolo angasiza ukusiza abafundi ukuqonda ukuthi zingabekwa kanjani lezizinombolo ngokuyikho. Abafundi kufanele banikwe isikhathi esiningi ukwenza bephindelela bebhala lezizinombolo.	

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1.4 **Chaza, qhathanisa bese uhlela izinombolo**	**Chaza, qhathanisa bese uhlela izinombolo kufike ema 999** • Chaza bese uqathanisa izinombolo eziphelele kufike ema 999 usebenzisa okuncane kuna, enkulu kuna, eningi kuna, engaphansi kuna nelingana ne • Chaza bese uhlela izinombolo eziphelele kufike ema 999 kusuka kokuncane kakhulu kuya kokukhulu kakhulu, kanye kokukhulu kakhulu kuya kokukhulu kakhulu **Sebenzisa izinombolo ezimele isikhundla ukukhombisa ukuhleleka, indawo noma isikhundla.** **S**ebenzisa, funda bese ubhala izinombolo ezimele izikhundla kuyofika kuma 31	**Chaza, qhathanisa bese uhlela izinombolo kufike ema 99** • Chaza bese uqathanisa izinombolo eziphelele kufike ema 99 usebenzisa okuncane kuna, enkulu kuna, eningi kuna, engaphansi kuna nelingana ne • Chaza bese uhlela izinombolo eziphelele kufike ema 99 kusuka kokuncane kakhulu kuya kokukhulu kakhulu, kanye kokukhulu kakhulu kuya kokukhulu kakhulu **Sebenzisa izinombolo ezimele isikhundla ukukhombisa ukuhleleka, indawo noma isikhundla.** **S**ebenzisa, funda bese ubhala izinombolo ezimele izikhundla kuyofika kuma 31	**Yini umahluko eBangeni 2?** Ngalethemu abafundi babukeza ukuhlela nokuqhathanisa iznombolo kufike ema 99 bebe bekwazi ukunika iziathu ukuthi yini inimbolo inkulu kunenye. Vumela abafundi ukuthi asebenzise umugqa wezinombolo, igridi yezinombolo noma ulwazi lwabo lokuhlakaza izinombolo zibe amashumi nokuyimivo ukukhombisa ulwazi lwabo. Uma kuhlelwa izinombolo abafundi kfanele bakwazi ukusho kthi kungani inombolo inkulu kunenye besebenzisa ubungako bamadijthi ukunika incazelo. Izibonelo 39 mcane kuno 59 ngoba: Ngiyazi ukuthi 39= 30 kanye ne 9, kanye 59 = 50 kanye ne 9. Futhi ama 30 ayizinyanda ezintathu zokuyishumi no 50 uyizinyanda ezinhlanu zokuyishumi. Kunezinyanda eziningi zokuyishumi ema 50 kunama 30. Ukusebenza ngezinombolo zesikhundla ikhalenda iyona efanelekile ngoba ivumela abafundi bakhulume ngesikhundla senombolo esisekhalendeni.	

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1.5 **Ubungako benani lenombolo**	**Bona ubungako bezinombolo ezihamba ngantathu kufike kuma 999** • Bona ukuthi idijithi ngayinye imeleni • Hlakaza izinombolo ezihamba ngantathu kufike ema 999 zibe izinombolo eziphinda ngama 100, eziphinda ngamashumi nangemi-vo. • Khomba bese usho ubungako bedijithi ngayinye.	**Bona ubungako bezinombolo ezihamba ngantathu kufike kuma 99** • Bona ukuthi idijithi ngayinye imeleni • Hlakaza izinombolo ezihamba ngantathu kufike ema 99 zibe izinombolo eziphinda ngamashumi nangemi-vo. • Khomba bese usho ubungako bedijithi ngayinye.	**Yini umahluko kuBanga 2?** Ngalethemu kubukezwa ulwazi lobungako benani lenombolo kusuka eBangeni 2. Abafundi baqhubeka nokwenza imisebenzi efana neyenziwa eBangeni 2 ngethemu 4 **Ulwazi nokusebenzisa amagama obungako benani lenombolo:** Sebenzisa, funda bese uqala ukubhala: Ngakunye noma ngokwamayunithi, ngamashumi, amadijithi, inombolo ehamba yodwa, inombolo ehamba ngambili....ubungako benani lenombolo... **Hlakaza izinombolo ezihamba ngambili ibe ngokuphinda ngamashumi ne-mivo.** Abafundi bangahlakaza izinombolo zibe: • Ubungako bamashumi nobungako bemivo isibonelo: 73=70+3 (amakhadi amele ubungako benani ayasiza ukwenza loku) • Ukuphindaphinda ngamashumi kanye nemivo Isib. 73= 7 amashumi+ 3 imivo **Ukwakhiwa kwezinombolo ezihamba ngambili kusukela kwizingxenye zobun-gako benani lenombolo** Isibonelo: Bhala inombolo: a) 6 amashumi noku 3 okukodwa _____ b) 2 amashumi noku 5 okukodwa _____ c) 12 amashumi noku 8 okukodwa _____ d) 18 amashumi noku 4 okukodwa _____	

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1.5 **Ubungako benani lenombolo**			**Sebenzisa izinsiza kufunda ukukhombisa ukuhlukaniseka kwezinombolo:** • Abhakhasi a) Bonisa 4 amashumi kanye 5 okukodwa ukusebenzisa i- abhakhasi b) Bonisa 7 amashumi kanye 6 okukodwa ukusebenzisa i- abhakhasi  • Amakhadi obungako benani lenombolo Abafundi basebenzisa amakhadi obungako benani lenombolo ukukhombisa izingxenye zenombolo **Ezibonelo:** **Lokhu okulandelayo izinhlobo zemibuzo engabuzwa** • Yisho ukuthi idijithi ayi-8 ku 28 limeleni? Elika 2? • Yisho ukuthi iyiphi inombolo elingana noma efana no: a) 6 amashumi b) Amashumi ayisishiyagalolunye nokuthathu okuyimivo c) Amashumi amahlanu kanye nokuyisishiyagalolunye okuyimivo.	

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Xazulula izinkinga ezisesimweni esijwayelekile				
1.6 **Amasu okuxazulula izinkinga**	Sebenzisa lamasu alandelayo ukuxazulula izinkinga bese uchaza isixazululo • Ukwakha nokuhlakaza izinombolo • Ukuphindakabili nokuhlukanisa kabili kulingane • Imigqa yezinombolo • Ukusondezela emashumini	Sebenzisa lamasu alandelayo ukuxazulula izinkinga • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili kulingane • Imigqa yezinombolo	**Yini umahluko kubanga 2?** Abafundi balindeleke ukuxazulula izinkinga zezibalo zamagama besebenzisa lamasu alandelayo: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili kulingane • Imigqa yezinombolo Ukudweba izinto ezifika kuma 99 ngakodwa akubi namphumela futhi kufanele kungakhuthazwa. Akukhuthazwe ukufakwa kwezimpawu zezinombolo uma bebhala, kufakwa nezithombe. Abafundi bangakhuthazwa ukubhala imisho yezinombolo. Vumela abafundi ukukhetha isu abazokhululeka ukulisebenzisa. Uhlu lwezinombolo kanye nezinhlobo zezinkinga luzonika isu elizosetshenziswa. Kodwa-ke uma abafundi besebenzisa amasu angafanelekile badinga ukwesekelwa ukusebenzisa izidlela okuyizo. **Ukwakha nokuhlakaza izinombolo** Leli elinye lamasu asemqoka emabangeni aphansi. Ukusebenzisa lelisu kuvumela abafundi ukuhlakaza kanye nokuhlanganisa izinombolo okusiza ukwenza izibalo kubelula. Bazolisebenzisa lelisu nasemabangeni aphakathi. **Ukuphinda kabili nokuhlukanisa kulingane** Lelisu libucayi futhi lidinga ulwazi oluqinile lwezinombolo. Abafundi abakwazi ukuqoka lelisu basebenza ngokukhululeka emaqhingeni abawasebenzisayo. Ukwazi ukuphinda kabili kuzovumela abafundi ukusebenzisa iqhinga lokusondezela ekuphindeni kabili. Isibonelo: Izinkinga zezibalo zamagama: Ngelanga elilodwa emtholampilo izingane ezingama 45 zagomela umkhuhlane. Ngosuku olulandelayo kwagonywa ezingama 46. Zingaki izingane ezagonywa zizonke? Lenkinga ingaxazululwa ngokusebenzisa ukuphinda kabili. Umfundi angaphinda kabili ama 45 uhlanganisa noku 1 noma aphinde kabili ama 46 asuse oku 1.	

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1.6 **Amasu okuxazulula izinkinga**			**Umugqa wezinombolo** Ukusebenzisa umugqa wezinombolo ukubasiza ukwenza izibalo kuzonika abafundi indlela yokubhala imicabango yabo nokukwazi ukuyilandela. Kubuye kuvumele abafundi ukuba nomfanekiso obhaliwe abangawusebenzisa ukuchaza indlela abaxazulule ngayo inkinga. Abafundi babelokhu besebenzisa imigqa yezinombolo kusuka eBangeni 1. Abafundi kufanele bakwazi ukwakha umugqa wezinombolo ongenalutho abazobhala inombolo abaqala kuyo bese bekwazi ukubona kuthi basuka kanjani kwenye eya kwenye. Isibonelo esikhombisa ukuthi abafundi bangawusebenzisa kanjani umugqa wezinombolo: Abafundi abangama 23 bathathe uhambo namuhla. Kusenabafundi abangama 63 esikoleni. Bebebangaki abafundi ekuqaleni?  	
1.7 **Ukuhlanganisa nokususa**	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isixazululo sakho kufaka ukuhlanganisa, ukususa okuholela ezimpendulweni kufike kuma 999.	Xazulula izinkinga zezibalo zamagama esimweni esijwayelekile bese uchaza isixazululo sakho kufaka ukuhlanganisa, ukususa okuholela ezimpendulweni kufike kuma 99.	**Izibonelo zezinkinga zezibalo ezingenziwa kulethemu** Ngalethemu, abafundi babukeza umsebenzi owenziwe eBangeni 2. Bheka amanothi ezinhlobo zokuxazulula izinkinga eBangeni 2, Ingxenye 2.	

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1.8 **Ukuhlanganisa okuphindayo okuholela eku-phindaphindeni**	Xazulula izinkinga zezibalo zamagama ezisesimweni esijwayelekile bese uchaza izixazululo usebenzisa ukuphindaphinda okunezimpendulo kufinyelele ema 99	Xazulula izinkinga zezibalo ezezinombolo ezisesimweni esijwayelekile bese uchaza izixazululo usebenzisa ukuphindaphinda okunezimpendulo kufinyelele ema 50	**Izibonelo zezinkinga ezingenziwa kulethemu.** • Umakhi udinga ukubeka imigqa eyi 6 yezitini, umugqa ngamunye unezitini eziyi 8. Zingaki izitini azozidinga? • UNosipho unamaphakethe ama 4 amaswidi. Iphakethe ngalinye linamaswidi ayi 6. Mangaki amaswidi anawo esewonke? • Umama ufuna ukubhaka amakhekhe ayi 12. Uma ikhekhe ngalinye lidinga amaqanda ama 2, mangaki amaqanda umama okumele awathenge? • Uma umfundi ngamunye efunda izincwadi eziyi 3 enyangeni kaJulayi, zingaki izincwadi ezingafundwa ikilasi lafundi abangama 20? **Uhlobo lwenkinga: Ukuhleleka/ Array** • Ingadi yemifino inemigqa eyi 12 yezitshalo.Umugqa ngamunye unezitshalo eziyi 7. Zingaki izitshalo ezisengadini zizonke? • Ingadi yemifino inemigqa eyi 12 yezitshalo. Umugqa ngamunye unenani lezithombo ezilinganayo. Uma ngabe kunesamba esingama 48 sezitshalo, zingaki izitshalo kumugqa ngamunye? • Ingadi yemifino inezitshalo ezingama 48 ezitshalwe emigqeni. Kunezitshalo eziyi 7 umugqa ngamunye. Minga imigqa ekhona? **Ukusebenzisa ukuphinda kabili ukuxazulula izinkinga** • UThemba uneminyaka eyi 8. • Umfowabo omdala mudala ngokuphindwe kabili kunoThemba. • Ubaba wakhe mdala ngobudala ngokuphindwe kane kunoThemba. • Umkhulu wakhe mdala ngokuphindwe kabili kunobaba kaThemba. • Mingakhi iminyaka yabo ngamunye? • Incwadi ka Sipho inamakhasi angama 48 ubude. Yena usekhasini lama 26; Ingabe usefunde ngaphezulu kukahhafu wencwadi? EBangeni 3 abafundi balindeleke ukubona izibalo zamagama eziphindaphindayo. Abafundi kufanele bakhuthazwe ukusebenzisa izinombolo nezithombe kunokusebenzisa izinsiza kufunda noma izithombe ngokwabo.	

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1.9 **Ukwenza amaqoqo nokuh-lukaniselana okuholela ekuh-lukaniseni**	Xazulula bese uchaza izixazululo ezinkingeni ezenziwayo ezifaka ukwabelana ngokulingana nokwenza amaqoqo kufike ema 200 okunezimpendulo ezingafaka izinsalela.	Xazulula bese uchaza izixazululo ezinkingeni ezenziwayo ezifaka ukwabelana ngokulingana nokwenza amaqoqo kufike ema 50 okunezimpendulo ezingafaka izinsalela.	Ngalethemu uphawu lokuhlukanisa luyethulwa. Kusemqoka ukuthi abafundi bayaluqonda ulwazi lokuhlukania ngaphambi kokuthula uphawu: Izinkinga ezifaka ukwabelana zivamisa ukuba: • Ukwabelana ngokulingana: kanye • Ngamunye uthola okungakanani Izinkinga ezifaka kwabelana zivamise ukufaka: • Mangakhi amaqoqo angenziwa? **Izibonelo zezinkinga ezingenziwa ngalethemu** • Uma abafundi abangama 44 nothisha aba 3 beya ekhonsathini, ibhasi ifaka abayi 11, ibhasi lizothutha kangaki ngaphambi kokuba bonke bafike ekhonsathini? • UMongezi upakisha izinto zokubala ezingama 47 emgqeni eyi 9. Zingaki emgqeni ngamunye? • Amantombazane angama 35 afuna ukudlala ibhola, mangakhi amaqembu amantombazane ayi 7 azobakhona? • Qagela kuqala: • Azoba maningi noma mancane kune 10? • Azoba maningi noma mancane kune 20? • UJabu uthenga amaswidi angama 44. Uwahlukanisa ngokulinganayo emaphaketheni ama 4 ukuwathengisa. Mangaki amaswidi ephaketheni ngalinye? • UJabu uthenga amaswidi angama 48. Ufuna ukuwahlukanisa abe yisithupha esikhwameni ngasinye. Udinga izikhwama ezingaki?	

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1.10 **Amaqhezu**	Xazulula bese uchaza izixazululo ezinkingeni ezenziwayo ezifaka ukwabelana ngokulinga-na okuholela ezixazulul-weni ezifaka amaqhezu okukodwa okuphelele kanye nokubgaphezu kokukodwa kokuphelele. Isib. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{5}$ njll	Xazulula bese uchaza izixazululo ezinkingeni ezenziwayo ezifaka ukwabelana ngokulinga-na okuholela ezixazulul-weni ezifaka amaqhezu okukodwa okuphelele kanye nokubgaphezu kokukodwa kokuphelele. Isib. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{5}$ njll	Ebangeni 2 abafundi bethulelwa amaqhezu: kanye • behlukaniselana, benza amaqoqo ngokulingana, • benikeza amagama amaqhezu • bekhomba amaqhezu ezimweni ezahlukene; • bebhala amagama amaqhezu njengoku 1 kokuthathu 3, noku 1 kokuhlanu • bethole amaqhezu ezinto eziphelele; kanye • namaqhezu amaqoqo ezinto. **Yini okwehlukile eBangeni 2?** Ngalethemu, abafundi bazoqhubeka nokusebenza ngamaqhezu awokukodwa kokuphelele afana noku 1 kahhafu, 1 yokuthathu, 1 yekota, 1 yokuhlanu. Abafundi bethulwa nsemaqhezwini angaphezu kokukodwa kokuphelele. Isib. 3 amakota noma 2 kokuyhathu. Abafundi abalindelekile ukusebenzisa ulimi olufana nokuthi okukodwa kokuphelele noluthi okungaphezu kokukodwa kokuphelele. **Izibonelo zezinkinga ezingenziwa kulethemu** • Ukwabelana okuholela emaqhezwini. Hlukanisela abangani aba 3 oshokoleti abayi 8ukuze bathole oshokoleti abalinga-nayo kungasali lutho. • Iqhezu leqoqo a) Thola 1 kota lamaswidi ayi 16 b) Amaswidi ayi 8 ayiqhezu lini lamaswidi angama 24? c) Ugogo unikeza uKiki iR12, uKiki ufuna ukonga okukodwa kokuthathu. Uzokonga malini? d) Loluhlobo wenkinga kufanele lwethulwe emva kokuba abafundi sebexazulule izinkinga ezine noma ezinhlanu zokwabelana okuholela emaqhezwini futhi sebazi amagama ezingxenye zamaqhezu	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.10 **Amaqhezu**			**Ukubhala amaqhezu** Abafundi abalindelekile ukubhala uphawu lweqhezu. Abafundi sebefundile ukulebula izingxenye zeqhezu njengo 1kokuhlanu, 3 amakota, noma 3 kokuyisithupha. Lokhu kubasiza kuqala ukuqonda ukuthi amagama amaqhezu achaza ukuthi zingaki izingxenye okuphelele okuhlukaniswe kwayizo, isib. ohhafu, okuthathu, amakota njll. Bese okwesibili babone ukuthi zingaki izingxenye ezisetshenzisiwe, isib. 2 kokuthathu. **Ukubeka izinkinga zamaqhezu ngamagama** • Abafundi kufanele badwebe izimpendulo zabo ukukhombisa ukuthi bayayiqonda inkinga. • Lindela ukuthi abanye abafundi bangadwea amaqhezu ngokuyikho kodwa bangasho igama laleloqhezu. Siza labafundi ukusho amaqhezu ngokuyikho.(bheka amanothi ahambisana nokushiwo ngamaqhezu pansi kwesimo esikhululekile sokwenza izibalo) • Abafundi kufanele basho izingxenye ezihlukanisiwe ngokuzibhala njengoku 2 kokuthathu.	
1.11 **Imali**	• Bona bese ukhomba imali yaseNingizimu Afrika ewuhlweza nengamaphepha. • Xazulula izinkinga zemali ezifaka isamba kanye noshintshi ngamarandi noma ngamasenti • Guqula phakathi kwarandi namasenti.	• Bona bese ukhomba imali yaseNingizimu Afrika ewuhlweza nengamaphepha. • Xazulula izinkinga zemali ezifaka isamba kanye noshintshi ngamarandi noma ngamasenti	Ngalethemu abafundi baqhubeka nokuxazulula izinkinga zezimali. **Izibonelo:** • Abafundi beBanga lesi 3 badinga R759 ukuze baye ekhempini yekilasi labo. Baqoqe imali engama R250, badinga malini ngaphezulu? • Bhala 325c njenga marandi namasenti • Zingaki izindlela ezahlukene ongenza ngazo ama R400 usebenzisa imali yamaphepha kuphela? Uzokwazi kanjani ukuthi unazo zonke izixazululo? • UThami unohlamvu olungama 50c nezinhlamvu ezine zama 20c. Uswidi ubiza R1, 20. Imalini ushintshi okufanele awuthole? • Uma ingubo yesikole ibiza R150, zingaba yimalini ezimbili? **Izinkinga zokuthenga nokuthengisa** **Isibonelo** • Ugogo kaXolo wamnikeza ama R5. Imaphi amaswidi amathathu angawuthenga? Uswidi wezinti R2,70; uguduza R1,80, ushampiyoni R1,40, isimutisi R2,20 namathofi R1,20 • UThabo uthenge izincwadi ezintathu ezibiza ama R80 iyinye, uzothola ushintshi ongakanani uma ekhokha ngama R300? • Amaphakethe amaminti ama 5 abiza 44c lilinye. Ubaba uNkosi ufuna amaminti angama 88. Mangaki amaphakethe okufanele awathenge? Uzokhokha malini?	

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Ukwenza izibalo esimweni esikhululekile				
1.12 **Amasu (izindlela noma amaqhinga)**	Sebenzisa lamasu alandelayo uma wenza izibalo: • Ukwakha nokuhlakaza izinombolo • Ukuphinda nokuhlukanisa kabili • Imigqa yezinombolo • Sondezela emashumini	Sebenzisa lamasu alandelayo uma wenza izibalo: • Ukwakha nokuhlakaza izinombolo • Ukuphinda nokuhlukanisa kabili • Imigqa yezinombolo	Lamasu azosetshenziswa kuko kokubili ukuxazulula izinkinga kanye nokwenza izibalo ezimwe ezikhululekile **Ukwakha nokuhlakaza izinombolo** Leli elinye lamasu asemqoka emabangeni aphansi. Ukusebenzisa lelisu kuvumela abafundi ukuhlakaza kanye nokuhlanganisa izinombolo okusiza ukwenza izibalo kubelula. Bazolisebenzisa lelisu nasemabangeni aphakathi. Kusemqoka ukuthi abafundi basebenzise ulwazi abanalo lapho behlakaza izinombolo. Isib. • Ukuhlakaza inombolo usebenzisa ubungako benani lenombolo; • Ukuhlakaza inombolo usebenzisa ukubala ngamashumi; noku • Hlakaza izinombolo kwenziwa izinombolo ezihamba ngambili **Imigqa yezinombolo** Abafundi bazoqhubeka nokusebenzisa bese bakha eyabo imigqa yezinombolo ukuze benze izibalo. Kunokwenzeka ukuthi imigqa yezinombolo isetshenziswe kakhulu ekwenzeni izibalo zokuhlanganisa nokususa. **Ukuhlanganisa nokususa** Abafundi kumele bazakhele eyabo imgqa yezinombolo bese behlakaza izinombolo zibe izingxenyana okungasetshenzwa ngazo. **Isibonelo:** 45 + 27 Umugqa wezinombolo kufanele uqale ema 45 bese abafundi bakha kweqa okubili kwama 10 kanye nokukodwa okukhombisa okuyi 7. **Ukuphindaphinda** Imigqa yezinombolo kufanele iqhubeke nokusetshenziswa ukweseka ukuhlanganisa okuphinday. Ukweqa okulinganayo kubhalwa emigqeni yezinombolo nemisho esekayo ingabhalwa nayo.	

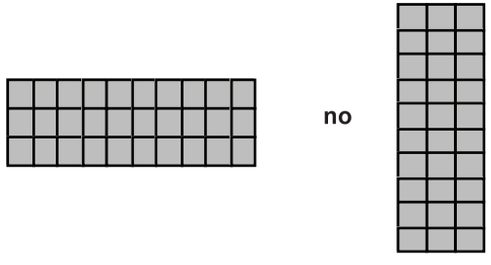
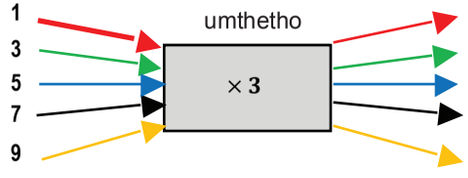
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1.13 **Ukuhlanganisa nokususa**	• Hlanganisa kuyofika kuma 999 • Susa kusukela 999 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Yenza uphindelela amabhondi ezinombolo kuyofika kuma 30	• Hlanganisa kuyofika kuma 99 • Susa kusukela 99 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Yenza uphindelela amabhondi ezinombolo kuyofika kuma 20	Ngalethemu abafundi benza ngokuphindelela bese bephetha umsebenzi owenziwe eBangeni 2. Uma ngabe abafundi: • Besebenza kuphela ngezinto zokubala ezihamba ngazinye; • Bedweba imifanekiso yokunga 1 kuphela; noku • Bala konke ngaku 1 Uma besebenza ngezamba ezingaphezu kwama 30, kwehlisa isivinini sabo kodwa futhi kwandisa amathuba okwenza amaphutha uma benza izibalo. Lokhu kwenza kubaluleke kubona ukuthuthukisa amaqhinga amaningi. Ukwakha nokuhlakaza izinombolo kuba elinye lamaqhinga abalulekile abafundi abazowasebenzisa kulethemu. Izindlela ezingasetshenziswa ukukhombisa ukwenza izibalo **Ukuhlakaza inombolo ibe izingxenye ezincane kwenza isibalo kubelula** Abafundi bangahlakaza inombolo ngezindlela ezizobalula kubona. Lokhu kusho ukuthi bazokwenza ngezindlela ezahlukene. **Sebenzisa ulwazi lobungako benani lenombolo ukuhlakaza izinombolo zibe ngamashumi nemivo.** • Ukuhlanganisa izinombolo ezihamba ngambili ngokuzihlakaza zombili 43 + 36 = ☐ 43 + 36 = (40 + 3) + (30 + 6) = (40 + 30) + (3 + 6) = 70 + 9 = 79 • Ukuhlanganisa ngokuhlakaza eyodwa inombolo 43 + 36 = ☐ 43 + (30 + 6) 43 + 30 → 73 + 6 = 79	

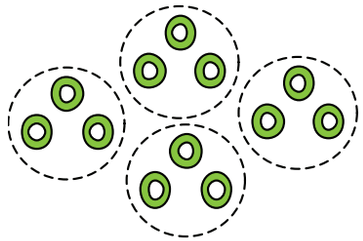
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**			• Ukuhlakaza kube amaqoqo okuyishumi 43 + 36 = ☐ 43 + (10 + 10 + 10 + 6) 43 + 10→ 53 + 10→ 63 + 10→ 73 + 6 = 79 Ukususa • Ukususa ngokuhlakaza zombili izinombolo 87– 56 = ☐ 87– 56 = (80 + 7) – (50 + 6) = (80– 50) + (7– 6) = 30 + 1 = 31 • Ukususa ngokuhlakaza eyodwa inombolo 87–56 = ☐ 87– (50 + 6) 87– 50 → 37 – 6 = 1 Lindela ukuthi abanye abafundi bangahlakaza inombolo ngezindlela ezahlukene kwenza kubelula kubo ukubala: • Ukuhlakaza inombolo ibe izinomblo eziphinda nge 10. 87– 56 = ☐ 87– (20 + 20 + 10 + 6) 87– 20 → 67–20 → 47– 10 → 37– 6 → 31 **Ukusebenzisa ulwazi olufundile njengesu lokubala** • Sebenzisa ukuhlukaniselana ukuhlakaza inombolo 69 + 12 69 + (6 + 6) 69 + 6 → 75 + 6 = 81	

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1.13 **Ukuhlanganisa nokususa**			• Ukubala uqhubeka nokubala uya emumva 78 – 69 = □ Ukubala ngokukodwa kusuka ema 69 kuyiqhinga elifanele ngoba izinombolo zisondelene. • Ukukhomba izinombolo ezisondezela ekuphindeni kabili 34 + 35 chaza ukuthi ama 34 aphinde kabili uhlanganisa noku 1noma ama 35 aphinde kabili ususe oku 1 34 + 34 + 1 Abafundi bangabhala phansi amaqhinga abo besebenzisa imicibisholo ukulandela indlela abenze ngayo izibalo. 34 + (30 + 4) + 1 34 + 30 → 64 + 4 → 68 + 1 → 69 • Guqula inombolo ibe ukuphinda ngamashumi ususe noma wengeze okukodwa **Bala uqhubeka noma wehle usondezela emashumini eliseduze** 58 + 19 = □ Lapha abafundi kufanele bazitshele ukuthi kunezindlela ezimbili abangakhetha kuzo. Guqula ama 58 noma i 19 usondelane ema 10. Bazozikhethela ngokwabo Isibalo singabhalwa kanje: 58 + 19 = 58 + 20 – 1 58 + 20 → 78 – 1 = 77 Abanye abafundi bangahlakaza ama 20 abe amaqoqo ama 2 okungama 10 ukubala ngokuyikho. **Ukubala ngokuphindelela amabhondi ama 20** Amabhondi kufinyelela kuma 20 kumele kusetshenziswa imifanekiso eyahlukene esekayo. **Thuthukisa bese wenza ngokuphindelela amakhono okuhlanganisa nokususa** Abafundi kufanele benze ngokuphindelela izindlela ezithize zamakhono okuhlanganisa nokususa • Hlanganisa noma susa izinombolo ezihamba ngazinye kwezihamba ngazimbili ngaphandle kokuthinta amashumi:	

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1.13 **Ukuhlanganisa nokususa**			Izibonelo: a) 65 + 4 b) 89 – 3 • Hlanganisa inombolo ehamba ngayinye kwinombolo ephinda ngama 10 isibonelo a) 70 + 5 b) 90 + 3 • Susa inombolo ehamba ngayinye kwinombolo ephinda ngama 10 isibonelo a) 80 – 6 b) 50 – 3 • Hlanganisa noma susa okuyi 10 kunoma iziphi izinombolo ezihamba ngambili Isibonelo a) 56 + 10 b) 68 + 10 c) 79 – 10 d) 57 – 10 • Hlanganisa noma ususe izinombolo ezihamba ngambili eziphinda ngama 10 ungathinti ama 100 a) 40 + 30 b) 80 – 50 **Ukubheka imiphumela yezibalo ezenziwe.** Ukubheka ubuqiniso bezixazululo Abafundi kufanele bafundiswe ukubheka ubuqiniso bezixazululo Enye indlela yokwenza lokhu ukuqagela izimpendulo ngaphambi kokubala. Uma uhlanganisa izinombolo ezimbili ezisondelene, isib. 45 no 46, abafundi bangas-ebenzisa indlela yokuphinda kabili uma beqagela izimpendulo.	

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1.13 **Ukuhlanganisa nokususa**			Ukuhlola izixazululo Abafundi kufanele bazi ukuthi banga: • Bheka isibalo sokuhlanganisa ngokususa. Isibonelo: Uma ama 36 + 18 = 54; ngakho ke ama 54– 18 = 36 • Bheka isibalo sokususa ngokuhlanganisa Isibonelo: 84– 48 = 36, ngakho ke 36 + 48 = 84 Ukusebenzisa izindlela zokuphambanisa uphawu lokuhlanganisa nolokususa isona sizathu esenza ukuthi kufundiswe kanye kanye.	
1.14 **Ukuhlanganisa okuphindayo okuholela eku-phindaphindeni**	• Phindaphinda izinombolo kusuka 1 kuya e 10 ngo 2,3,4,5,10 kuze kufike e 99 • Sebenzisa izimpawu (x, =, ☐)	• Phindaphinda izinombolo kusuka 1 kuya e 10 ngo 2,5,3,4,10 • Sebenzisa izimpawu (x, =, ☐)	EBangeni 2 abafundi baphindaphinde izinombolo 1 kuya e 10 ngo1, 2, 5, 3 kanye noku 4 kuze kufike ema 50. Bethulwa kuphawu base belusebenzisa emishweni yezinombolo. Abafundi eBangeni lesi 3 kufanele bqhubeke benze bephindelela futhi basebenzise ulimi lokuphindaphinda kwizimo lapho bezosebenzisa izinto eziphathekayo; phinda kabili, phindaphinda, phindaphinda ngo, okuningi kwe, amaqoqooku, izikhathi, okuphindwe kathathu. Ulimi kufanele lusetshenziswe uma kwenziwa izibalo zokuphindaphinda. Ngalethemu abafundi bazophinda phinda ngokuthathu okokuqala. Abafundi abangena abangeni 3 kufanele bakwazi ukwethula ukuhlanganisa okuphindayo besebenzisa uphawu lokuphindaphinda. Abafundi bayakwazi ukuchaza ukuphindaphinda ngezindlela ezahlukene. Bayakuqonda ukuthi amaqoqo ama 3 okuwuyisi 6 angabhalwa kanje 6 + 6 + 6. Kukhona nokuqonda ukuthi oku 3 kuphindwa ka 6 kungabhalwa kanje 3 x 6. Lolu ulwazi luyaqhubeka nokuthuthukiswa eBangeni 3. Abafundi bazoqhubeka nokusebenzisa izinsiza kufunda eziphathekayo, kanye nemigqa yezinombolo ukuqonda nokwethula ukuphindaphinda. Ukusukela eBangeni lesi 3 abafundi kufanele bazi ukuthi ukuphindaphinda kungenziwa noma ingayiphi indlela.	

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1.14 **Ukuhlanganisa okuphindayo okuholela eku-phindaphindeni**			Isibonelo: Abafundi kufanele bakwazi ukuqonda nokubhala lokhu okulandelayo: 3 x 10 = ☐ 10 x 3 = ☐ 30 = 10 x ☐ 30 = 3 x ☐ Lezizitatimendi eziphezulu kufanele zisekelwe ngokusebenzisa imifanekiso ej-wayelekile evumela abafundi ukuba babone lokhu 3 x 10 kanye 10 x 3 kunikeza umphumela ofanayo. Isibonelo:  **no** Ekupheleni kwethemu abafundi kufanele bakwazi ukuqala ukuqonda ukuthi uku-phindaphinda kungenziwa noma ikanjani. Lolulwazi kufanele lwenziwe ngokuphin-delela unya wonke Abafundi bangasebenzisa imidwebo ekhombisa ukuxhumana kwezinto ukubhala izindlela zokuphindaphinda Isibonelo: Inombolo osebenza ngayo umphumela  	

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1.15 **ukuhlukanisa**	Hlukanisa izinombolo ufike ema 99 ngo 2, 3, 4, 5, 10 Sebenzisa izimpawu ezifanele (÷,=, ☐)	Hlukanisa izinombolo ufike ema 50 ngo 2, 5, 10 Sebenzisa izimpawu ezifanele (÷,=, ☐)	Uphawu lokuhlukanisa lwethulwa eBangeni 3. Eminyaka emibili ulwazi lkuhlukanisa nokwenza amaqoqo lwenziwe, manje sekuyisikhathi sokuxhumanisa lolu lwazi. Uphawu lokuhlukanisa lungethulwa uma abafundi benza izinkinga zezibalo zamagama. Ukwethulwa kophawu kungelekelelwa nangemifanekiso engenzansi.Kubalulekile ukusebenzisa imifanekiso abayijwayele. Isibonelo: **12 kuqoqwe ngaku 4 kunika 3 amaqoqo**  $4 \times 3 = 12$ 12 uhlukaniswa ka 3 unika 4 ngakunye **12 kuqoqwe ngaku 4 kunika 3 amaqoqo**  $3 \times 4 = 12$ 12 uhlukaniswa ka 3 unika 4 ngakunye **12 ÷ 3 = 4** Kusho ukuthi: 12 ehlukaniswe ka 3 kunikeza 4 amaqoqo, kanye 12 ehlukaniswe ka 3 kunikeza 4 ngakunye.	

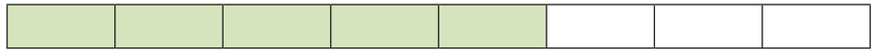
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1.16 **Izibalo zekhanda**.	**Ulwazi lwezinombolo: uhla 999** • Hlela iqoqo lezinombolo ezikhethiwe. • Qhathanisa izinombolo kufike ema 999 bese usho ukuthi iyiphi engaphezulu noma ngaphansi ngoku 1,2,3,4,5, kanye 10 **Ukukhumbula okusheshayo** • Izindlela zokuhlanganisa nokususa kufike ema 20 • Hlanganisa noma ususe izinombolo eziphinda nge 10 kusuka k u 0 kuya e 100. • Izindlela zokuphindaphinda kanye nokuhlukanisa kwe: • Ithebla lika 2 kufike koku 2 x 10 • Ithebula leshumi kufike e 10 x10	**Ulwazi lwezinombolo: uhla 200** • Hlela iqoqo lezinombolo ezikhethiwe. • Qhathanisa izinombolo kufike ema 200 bese usho ukuthi iyiphi engaphezulu noma ngaphansi ngoku 1,2,3,4,5, kanye 10 **Ukukhumbula okusheshayo** • Izindlela zokuhlanganisa nokususa kufike ema 20 • Hlanganisa noma ususe izinombolo eziphinda nge 10 kusuka ku 0 kuya e 100.	Amaqhinga okwenza izibalo, ulwazi lwezibalo, nolwazi nemigomo yezinombolo luthuhukiswa ngokuxazulula izinkinga nokwenza izibalo. Lokhu kungenziwa ngesikhathi sezibalo zekhanda. Lokhu kusiza abafundi ukuba bazejwayele futhi bakwazi ukuzisebenzisa kalula uma benza izibalo futhi bexazulula izinkinga esimweni esejwayelekile. Ngalethemu abafunda bayaqhubeka nokuthuthukisa amakhono okusebenza ngokukhululekile ngezinombolo. Amaqhinga okubala ngekhanda abafundi abathuthuka kuwo azobasiza ngokwenza izibalo ezibhalwayo futhi kuzobasiza bakwazi ukuqagela. Izibonelo zemibuzo engabuzwa: Ulwazi lwezinombolo: Amagama nezimpawu zezinombolo Phakamisa ikhadi noma ubhale phansi igamal lenombolo. Khetha umfundi abhale uphawu aluqondanise negama **Okungaphezulu noma okungaphansi** Yini oku: • Oku 1 ngaphansi kwama 200 • Oku 1 ngaphezulu kwe 199 • Oku 2 ngaphezulu kwe 102 • Oku 2 ngaphansi kwe 105 • Oku 3 ngaphezulu kwa 77 • Oku 3 ngaphansi kwa 51 • Oku 4 ngaphezulu kwa 68 • Oku 4 ngaphansi kwe 167 • Oku 5 ngaphezulu kwe 169 • Oku 5 ngaphansi kwe185 • Okuyi 10 ngaphezulu kwa 90 • Okuyi 10 ngaphansi kwe 160	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.16 **Izibalo zekhanda**.	**Amaqhinga okwenza izibalo** Sebenzisa lamaqhinga alandelayo ukwenza izibalo: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma uye emumva • Umugqa wezinombolo • Ukuphinda nokuhlukanisa kabili • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa • Sebenzisa ubudlelwano obuphakathi kokuphindaphinda nokuhlukanisa.	**Amaqhinga okwenza izibalo** Sebenzisa lamaqhinga alandelayo ukwenza izibalo: • Beka inombolo enkulu kuqala ukuze ubale uqhubeke noma uye emumva • Umugqa wezinombolo • Ukuphinda nokuhlukanisa kabili • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa	Yiluphi uhlamvu lwesi 5 konobumbani? Iyiphi inyanga yesi 9 onyakeni? **Ukuhlela nokuqhathanisa** Ikuphi okuningi: 21 noma 171? Nginike inombolo ephakathi kuka 154 no 159 **Ukukhumbula ngokushesha:** Izindlela zokuhlanganisa nokususa Azi ngekhanda ukuhlanganisa nokususa amabhondi ezinombolo kufike ema 20 Isibonelo a) _____+ △ = 20 b) _____+ △ = 16 Izindlela zokuhlanganisa nokususa zazo zonke izinombolo kuyofka kuhlanganisa nama 20 Izibonelo a) 1 + 11 = 12 b) 18 – 4 = 14 c) 11 + 1 = 12 d) 18 – 14 = 4 e) 2 + 10 = 12 f) 18 – 5 = 13 g) 10 + 2 = 12 h) 18 – 13 = 5 i) 3 + 9 = 12 j) 18 – 6 = 12 k) 9 + 3 = 12 l) 18 – 12 = 6 Khumbula ngokushesha kuhlanganisa okuphinda kabili ufike ema 20. Lkhu kufanele kufake izindlela zokususa ezifanele: Izibonelo: a) 1 + 1 = 2 b) 6 + 6 = 12 c) 2 + 2 = 4 d) 7 + 7 = 14 e) 3 + 3 = 6 f) 8 + 8 = 16 g) 4 + 4 = 8 h) 9 + 9 = 18 i) 5 + 5 = 10 j) 10 + 10 = 20	

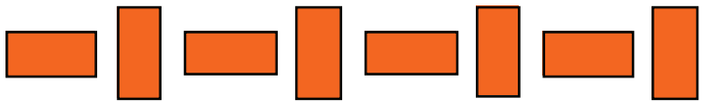
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.16 **Izibalo zekhanda**.			**Izibonelo:** Ngibonise inombolo yokuhlanganisa... ukwenza am 20. (ukubhala phansi noma usebenzise amakhadi obungako benani lenombolo). a) 8 b) 2 c) 9 d) 15 e) 3 Izibonelo: Ngibonise inombolo esalayo uma... isuswa ema 20 (ukubhala phansi noma usebenzise amakhadi obungako benani lenombolo). a) 5 b) 18 c) 0 d) 14 e) 7 Hlanganisa noma susa izinombolo eziphindaphinda nge 10 ukusuka e 100 Izibonelo: a) Yisho ukuthi mangakhi amagxathu angathathwa kumugqa wezinombolo ubala ngama 10 usuka kuma 30 kufika e 100 noma kusuka e 100 kufika ema 50 b) Thola amakhadi ahambisanayo kwenza i 100 c) Faka izinombolo emabhokisini ukwenza i 100 ☐ + 70 = 100 20 + ☐ = 100 100 – ☐ = 90 100 – 40 = ☐	

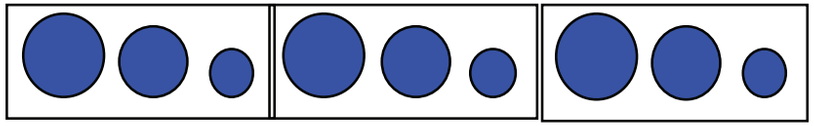
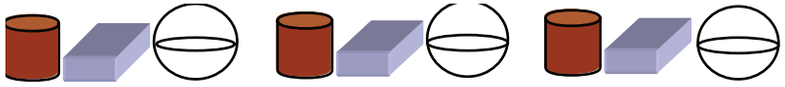
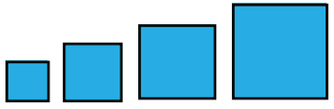
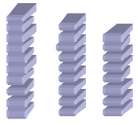
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.16 **Izibalo zekhanda**.			**Amaqhinga okwenza izibalo:** Sebenzisa amaqhinga ukwenza izibalo ukwenza ukuhlanganisa nokususa ngoku-yikho. Hlanganisa izinombolo ezihlukene ngokusebenzisa amaqhinga afana no: • Bheka izinombolo ezihamba ngambili ezenza i -10 usebenzise lezi kuqala 2 + 7 + 8 2 + 8 kwenza 10 bese wengeze 7. Beka inombolo enkulu kuqala ukuze ubale uqhubekele phambili noma ubale uye emumva. • Qala ngenombolo enkulu kakhulu 5 + 15 Buye ubhale lomusho wenombolo: 15+5 bese ubala uqhubeka ufika ema 20 • Guqula inombolo ibe i-10 bese ususa noma wengeze Isibonelo: 8 + 9 = 17 uphinde uchaze ukuthi ungenza kanje 8 + 9 = 8 + 10 - 1 6 + 11 = 17 uphinde uchaze ukuthi ungenza kanje 6 + 10 + 1 17 - 9 = 8 uphinde uchaze ukuthi ungenza kanje 17 - 10 + 1 • Hlakaza inombolo ibe izingxenye bese uyihlanganisa Akha bese uhlakaza izinombolo: Qhubeka nokuhlakaza izinombolo zibe “ izingxenye ezincane”. 8 + 12 = 8+ (10+2) = 8 + 2 + 10 = 10 + 10 = 20 • Sebenzisa ukuphinda kabili njengeqhinga lokwenza izibalo zekhanda. Khomba izinombolo ezisondelela ekuphindeni kabili.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.16 **Izibalo zekhanda**.			Isibonelo 5+6=11 uchaze ukuthi ukuphinda kabili oku 5 ufake noku 1noma ukuphinda kabili okuyi 6 ususe oku 1 Bona ukuthi uma izinombolo ezimbili ezisondelene ngobungako kubalula ukuthola umehluko ngokubala uye phambili ungabali uye emumva. 5 + 6 = 11 ubuye uchaze ukuthi ukubala usuka kwi 11 uze ufike kwi 15 kunikeza 4 Ezinye izibalo zekhanda zingenziwa ngaphandle kwezinsiza kufunda, kodwa ku-yasiza ukwenza izibalo ngekhanda usebenzisa izinsiza kufunda. Izinsiza kufunda ezinconyiwe • Umugqa wezinombolo (owenziwe ongenalutho) • Igridi yezinombolo • Amakhadi amele ubungako benani lenombolo (flard cards) • Ubuhlalu bokubala	

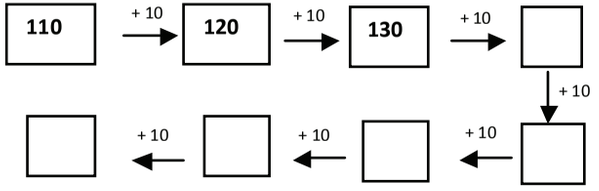
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.17 **Amaqhezu ajwayelekile**	• Sebenzisa bese usho amaqhezu ezimweni ezejwayelekle okufaka ohhafu, amakota, okukodwa kokuyisishiyagalombili, okukodwa kokuthathu, okukodwa kokuyisithupha, okukodwa kokuyisihlanu. • Bona amaqhezu emidwebeni • Qala ukubona ukuthi ohhafu ababili noma okuthathu kokuthathu kwenza okukodwa okuphelele nokuthi uhhafu owodwa kanye namakota amabili kuyalingana • Bhala amaqhezu njengo 1 uhhafu, 2 kokuthathu	• Sebenzisa bese usho amaqhezu ezimweni ezejwayelekle okufaka ohhafu, amakota, okukodwa kokuyisishiyagalombili, okukodwa kokuthathu, okukodwa kokuyisithupha, okukodwa kokuyisihlanu. • Bona amaqhezu emidwebeni • Qala ukubona ukuthi ohhafu ababili noma okuthathu kokuthathu kwenza okukodwa okuphelele nokuthi uhhafu owodwa kanye namakota amabili kuyalingana • Bhala amaqhezu njengo 1 uhhafu, 2 kokuthathu	EBangeni 2 kwathulwa amaqhezu kubafundi. Bona: • Behlukaniselana benza amaqoqo ezinto ngokulingana; • Banika amagama ezingxenye zamaqhezu ezihamba ngayinye kwamaningi • Bekhomba amaqhezu ezimweni ezahlukene. • Bebhala amagama amaqhezu ngoku 1 kokuthathu, 1 kokuhlanu; • Bethola amaqhezu ezinto eziphelele; kanye • Bethola amaqhezu amaqoqo ezinto Ngalethemu abafundi bethulwa kumaqhezu angaphezulu kwelilodwa, isib. 3 amakota noma 2 kokuthathu. Baqhubeka nokusebenza ngamaqhezu angaphezulu kwelilodwa. Basebenza ngeqhezu elilodwa kwayisithupha nelilodwa kwayisishiyagalombili. Izibonelo zemibuzo: Isimo sihlukaniswe izingxenye ezingaki ezilinganayo? Zingaki izingxenye zesimo ezihlikihliwe? Iqhezu elingakanani lesimo ngasinye elihlikihliwe? Iqhezu elingakanani lesimo elingahlikihliwe? A.  B  C  D 	

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1.17 **Amaqhezu ajwayelekile**			Abafundi kufanele banikezwe ithuba lokufaka umbala ezimweni ngokwabo. Isibonelo: Faka umbala koku 2 kokuthathu kwalesimo. A. Faka umbala koku 2 amakota alesimo. B Faka umbala ok 4 kokuhlanu kwalesimo. B Faka umbala kokuyi 6 kokuyisishiyagalombili kwalesimo. D	

YEBANGA LESI- 3 ITHEMU YOKU-1 2. AMAPHETHINI, UBUDLELWANO NEALJEBRA				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1**	**AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI (ngokwamahora)**
2.1 **Amaphethini Asejiyometri**	**Ukukopisha, ukwandisa kanye nokuchaza** Ukukopisha, ukwandisa kanye nokuchaza ngamagama • amaphethini alula enziwe ngezinto eziphathekayo • amaphethini alula enziwe ngokudwetshwa kwemingqa, izimo noma izinto **Ukuzakhela amaphethini** Ukuzakhela amaphethini ache asamibalomdwebo • ngeizinto eziphathekayo • ngokudwetshwa kwemingqa, izimo noma izinto **Amaphethini asizungezile** Khomba, chaza ngamagama bese ukopisha amaphethini asamibalomdwebo • ngokwemvelo • ngokwesimo senhlalo yesimanje yansukuzonke • ngokwamasiko namagugu emvelo	**Ukukopisha, ukwandisa kanye nokuchaza** Ukukopisha, ukwandisa kanye nokuchaza ngamagama • amaphethini alula enziwe ngezinto eziphathekayo • amaphethini alula enziwe ngokudwetshwa kwemingqa, izimo noma izinto **Uhla lwamaphethini:** Amaphethini alula lapho izimo, noma iqoqo lezimo kuphindaphindiwe ngendlela efana ngqo. **Ukuzakhela amaphethini** Ukuzakhela amaphethini akhe asamibalomdwebo • ngeizinto eziphathekayo • ngokudwetshwa kwemingqa, izimo noma izinto	EBangeni lesi-3 abafundi bangasebenza ngamaphethini lapho: • amalungu aphindaphindiwe ngendlela efanayo; • ubungako bezimo bushintsha ngendlela engaqageleka; kanye • nokutshitsha kwenani lezimo noma izinto ngendlela engaqageleka Amaphethini angenziwa esuselwa entweni eyodwa kodwa kube nokushintshashintsha kwemibabala ngendlela ethize isib.  Amaphethini angenziwa ngokusebenzisa isimo noma into eyodwa kodwa isikhundla sesimo noma into sishintshe ngendlela ethize. Isibonelo: a)  b)  Amanye amaphethini aphindaphinda amaqoqo ezimo noma ezinto ezifanayo, lapho ubungako besimo kwiqoqo ngalinye buguquka ngendlela evamile futhi eqagekelayo. Isib. Ubungako besimo buyanda noma buyancipha. Isibonelo: Ubungako besimo buyakhula 	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwamahora)
2.1 **Amaphethini Asejiyometri**			Isibonelo: Ubungako besimo buyancipha  Amaphethini angenziwa ngokuthi kwenziwe amaqoqo afanayo, lapho iqoqo ngalinye linenhlobo eyodwa yento kodwa isikhundla sento kulelo naleloqoqo siyaguquka. Amaqoqo afanayo ayaphindwa. Isibonelo:  Amanye amaphethini asuselwe kwisimo esithile esisodwa, kodwa ubungako besibonelo sesimo siyakhula noma sinciphe.isib:  Amanye amaphethini asuselwe kwizimo ezinezinto ezifanayo, kodwa inani lohlobo ngalunye lwesimo noma into luyakhula noma lunciphe ngendlela eyewayelekile. Isibonelo:   • Ukukopisha amaphethini kusiza ukuba abafundi babone ukuthi ukuhleleka kwephethini kwakheke kanjani. • Ukwandisa iphethini kusiza abafundi ukuba bahlole ukuthi ingabe bakuqondis-ise kahle ukuhleleka kwamaphethini.	Isifundo 1

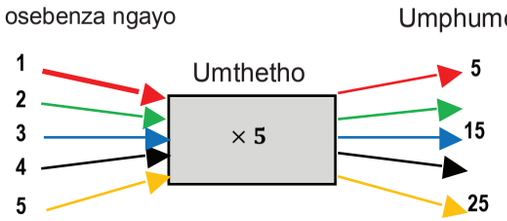
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwamahora)
2.1 **Amaphethini Asejiyometri**			• Ukuchaza amaphethini kusiza abafundi ukuthuthukisa amakhono olimi kanye nokukhuluma. Kubuye kukusize ukuba ukwazi ukubona ukuthi ingabe abafundi bawahumushe kanjani amaphethini. Kuvame ukubalula kubafundi ukukhuluma ngamaphethini emveni kokuba sebewenzile. Kulesisikhathi samanje abafundi kumele bakwazi ukuchaza amaphethini ngaphandle kosizo lwemibuzo ebaholayo. Qhubeka ugxile ekuthuthukiseni ulimi abaludingayo ukuze bakwazi ukuchaza amaphethini	
2.2 **Amaphethini ezinombolo**	**Ukukopisha, ukwandisa kanye nokuchaza** Ukukopisha, ukwandisa kanye nokuchaza ukulandelana okulula kwezinombolo kuze kufike okungenani kwi 1000 **Ukwakha nokuchaza amaphethini akhe** Ukuzakhela amaphethini akhe ezinombolo.	**Ukukopisha, ukwandisa kanye nokuchaza** Ukukopisha, ukwandisa kanye nokuchaza ukulandelana okulula kwezinombolo kuze kufike okungenani kwi 100 • Ukulandelana kumele kubonise ukubala uya phambili noma uya emumva ngoku: • 1 ukusukela kunoma kuyiphi inombolo ephakathi kuka 0 no 200 • 10 ukusukela kunoma ikuphi ukuphindaphinda ngoku 10 okuphakathi kuka 0 no 200 • 5 ukusukela kunoma ikuphi ukuphindaphinda ngoku 5 okuphakathi kuka 0 no 200	Ukulandelana kwezinombolo kungaxhunyaniswa nezinombolo kanti futhi kusekele ukubala. Njengoba amakhono abafundi okubala eshintsha futhi ethuthuka, izinhlobo zokulandelanda kwezinombolo abafundi abasebenza ngazo zingathuthuka Ukulandelana kwezinombolo kufanele kubonise ukubala uya phambili noma ukubala uya emumva ngoku: • 1 ukusukela kunoma kuyiphi inombolo ephakathi kuka 0 no 200 • 10 ukusukela kunoma ikuphi ukuphindaphinda ngoku 10 okuphakathi kuka 0 no 200 • 5 ukusukela kunoma ikuphi ukuphindaphinda ngoku 5 okuphakathi kuka 0 no 200 • 2 ukusukela kunoma ikuphi ukuphindaphinda ngoku 2 okuphakathi kuka 0 no 200 • 3 ukusukela kunoma ikuphi ukuphindaphinda ngoku 3 okuphakathi kuka 0 no 200 • 4 ukusukela kunoma ikuphi ukuphindaphinda ngoku 4 okuphakathi kuka 0 no 200 • 100 ukusukela noma ikuphi kuphindaphinda nge 100 ukufika okungenani 500 Abafundi bangakhomba izinombolo ngenkathi bebala. Kubalulekile ukunika abafundi ukuandelana kwezinombolo ngezindlela ezihlukene	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwamahora)
2.2 **Amaphethini ezinombolo**		• 2 ukusukela kunoma ikuphi ukuphindaphinda ngoku 2 okuphakathi kuka 0 no 200 • 3 ukusukela kunoma ikuphi ukuphindaphinda ngoku 3 okuphakathi kuka 0 no 200 • 4 ukusukela kunoma ikuphi ukuphindaphinda ngoku 4 okuphakathi kuka 0 no 200 - 100 ukufika okungenani kuma 500	Isibonelo: • Ukulandelana kwezinombolo okubhalwe phansi 200; 199; 198; 197; 196,..... • Umgqa wezinombolo - Okukhombisa izinombolo ezibalwayo kuphela. - Izingxenye zemigqa yezinombolo isib. 150-200 • Igridi yezinombolo • Izinombolo ezixhumanayo Abafundi bangemboza, bafake umbala, noma bakokelezele izinombolo njengoba beqhubeka bebala emgqeni wezinombolo nakugridi, nokulandelana kwezinombolo okubhaliwe. Abafundi bangafakela izinombolo ezisele emgqeni wezinombolo, amagridi ezinombolo, nokulandelanda kwezinombolo kanye nezinombolo ezixhumanayo Isibonelo:  Njengoba ukulandelanda kwezinombolo kungasekela ukubala, ngakho-ke abafundi bangakwazi ukubala ngamaqoqo, kungaba izinto noma izithombe, baphinde babhale lezizinombolo kumathebula kanye namashadi okulandenayo, okuyindlela yokuthuthukisa nokusekela ukuphindaphinda.	3 Izifundo

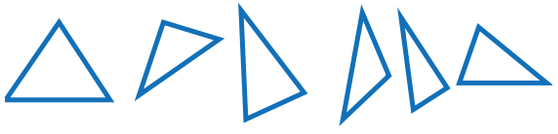
IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwamahora)
			Kuthemu yokuqala kugxilwa kakhulu koku 2, 5 kanye nokuyi 10. Isib. Ukubala ngaku 5	

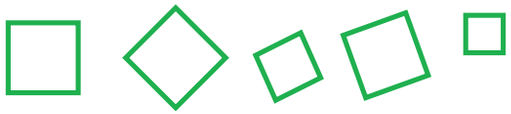
R5 izinhamvu zemali	1	2	3	4	5	6	7	8	9
Isamba semali	R5	R10	R15	R20	R25	R30	R35	R40	R45

Inombolo osebenza ngayo



Ekupheleni kwethemu abafundi basebenza ngokubala ngendlela efanele, nokulandelana okufanele ukusuka nokuya e100.

ITHEMU YOKU-1 YEBANGA LESI-3 3. INDAWO NESIMO (IJIYOMETRI)				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** **(ngokwesifundo esingangeha nemizuzu engu 24)**
3.3 **Izimo ezinhlang-othimbili** **(2-D)**	**Uhla lwezimo:** • indilinga • unxantathu • isikwele • unxande **Izimpawu zezimo** Chaza, hlela bese uqhathanisa izimo ezinh-langothi mbili ngokwe: • simo • izihlangothi eziqondile • amacala ayindilinga **Dweba izimo** • indilinga • unxantathu • isikwele • unxande	**Uhla lwezimo:** • indilinga • unxantathu • isikwele • unxande **Izimpawu zezimo** Chaza, hlela bese uqhathanisa izimo ezinh-langothi mbili ngokwe: • simo • izihlangothi eziqondile • amacala ayindilinga	**Yini okwehlukile eBangeni 2?** Kubanga 3 abafundi babukeza wonke umsebenzi owenziwe ngezimo ezinh-langothi mbili eBangeni 2, kodwa kungagxilwa kubungako noma umbala uma kusetshenzwa ngezimo. Lokhu kunika abafundi isikhathi esanele sokugxila emsebenzini omusha wezinto ezinnhlangothi ntathu, isikhundla, ukubonisa nkoubukeka kwento kanye nokufana nse nxazombili. Umsebenzi omningi wezimo kuleIBANGA LESI-3 wenziwa ngezinto eziphathek-ayo. Wonke umsebenzi kufanele uhethwe ngemisebenzi ebhalwayo. **Ukubona nokusho izindilinga, onxantathu, izikwele kanye nonxande** Abafundi kumele basebenze ngezindilinga kanye nezikwele znobungako obuh-lukene kanye nonxantathu abanezimo ezahlukene. Kubalulekile ukuthi abafundi bangaboni isibonelo esisodwa nje kuphela sosimo ngasinye. Amasethi amaningi athengisayo ezimo anika isibonelo esisodwa vo sonxantathu. Abafundi kumele bakwazi ukubona: • Izindilinga ezinobungako obahlukene Isibonelo:  • Onxantathu abanezimo ezahlukene, babekwa ezikhundleni ezahlukene Isibonelo: 	Izifundo ezi 2

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangeha nemizuzu engu 24)
			• Izikwele ezahlukene ngobungako bazo, ezikhundleni ezahlukene Isibonelo:  • Onxande abanezimo ezahlukene babekwa ezikhundleni ezahlukene Isibonelo:  Kuyasiza ukuthi abafundi basebenze ngemifanekiso enezimo ezakhiwe ngama-bhokisi asikiwe. Lokhu kuvumela ukuba abafundi bakwazi ukubona onxantathu, izikwele kanye nonxande abehlukene bebekwe ezikhundleni ezehlukene. Abafundi bahlela izimo ngokuthi zinamacala aqondile noma ayindilinga. Abafundi bahlela bese benza amaqoqo ezimo ngokuthi zingonxantathu, unxande, izikwele noma izindilinga. Umsebenzi uphethwa ngokwenza imisebenzi ebhalwayo.	

ITHEMU YOKU-1 YEBANGA LESI-3 4. ISILINGANISO				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1**	**AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** **(ngokwesifundo esingangehora nemizuzu engu 24)**
4.1 **Isikhathi**	**Ukusho isikhathi** • Ukufunda izinsuku ekhalendeni • Ukufaka izinsuku zokuzalwa, imigubho yezenkolo, amaholide omphakathi, izehlakalo eziwumlando, izehlakalo zezikole kwikhalenda • Ukusho isikhathi samahora ayi 12 - amahora - isigamu sehora - ikota lehora - amaminithi kumawashi ezinti kanye namawashi anezinombolo, kanye nezinye izinto ezibonisa isikhathi isib. umakhalekhukhwini **Ukubala ubude besikhathi kanye nokundlula kwesikhathi** Ukusebenzisa amakhalenda ukubala nokuchaza ubude besikhathi ngokwamalanga noma amasonto noma izinyanga kanye	**Ukusho isikhathi** • Ukufunda izinsuku ekhalendeni • Ukufaka izinsuku zokuzalwa, imigubho yezenkolo, amaholide omphakathi, izehlakalo eziwumlando, izehlakalo zezikole kwikhalenda • Ukusho isikhathi samahora ayi 12 - amahora - isigamu sehora - ikota lehora - amaminithi kumawashi ezinti kanye namawashi anezinombolo, kanye nezinye izinto ezibonisa isikhathi isib. umakhalekhukhwini	**Yini okwehlukile eBangeni 2?** Izinto ezikhombisa isikhathi ziyethulwa. EBangeni 2 abafundi bafunda isikhathi ngamahora, isigamu sehora kanye nekota emawashini ezinti. EBangeni lesi 3 abafundi basebenza ngezinto ezikhombisa isikhathi okokuqala. Balokhu besagxile esikhathini sesimo samahora ayi 12 bese besebenzisa amagama asho ukuthi kusekeni noma kuntambama lapho kudingeka (am / pm). Abafundi balokhu beqhubekile njalo benza ngokuphindelele bekhuluma ngobude besikhathi, kanye nokulandelana kwesikhathi. Ngenkathi kufundiswa ikilasi lonke, kanye nangenkathi kugxilwe ekufundiseni amaqembu, abafundi baqhubeka ngokukhuluma ngosuku lwesonto, inyanga yonyaka, lolosuku lwenyanga onyakeni, kanye nezinsuku eziphambili/ ezedlule kanye nezinsuku ezizayo. Abafundi baqhubeka nokufaka loku okulandelayo uma kufika leyo migubho • izinsuku zokuzalwa, • imigubho yezenkolo, • amaholide omphakathi, • izehlakalo eziwumlando, • izehlakalo zezikole ezikwikhalenda Qhubeka ucela abafundi ukuba basho isikhathi ngokwamahora, isigamu sehora, ikota lehora usebenzisa amawashi ezinti ngezikhathi ezejwayelekile zonke izinsuku. Isibonelo, abafundi bangacelwa ukuba basho isikhathi sokuqala kwesikole, isikhathi sekhefu kanye nesikhathi sokuya ekhaya, noma uma beshintsha isifundo kwesinye.Khetha isikhathi lapho iwashi liqonde ngqo kwihora noma isigamu sehora noma ikota lehora.Kuyasiza ukuba newashi elikhulu elibekiwe elisebenzayo ekilasini ukuze abafundi bakwazi ukulokhu bebheka kulo. Abafundi bangabuye benze imifanekiso yamawashi. Ungabacela abafundi ukuthi babonise izikhathi ezahlukile ubuye wengeze nokubala. Isib. Ngibonise u 10 ngqo.Bekuwubani isikhathi esingangekota lehora eliphambi kuka 10?	Izifundo ezi 4

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
4.1 **Isikhathi**	• nokuguqula okupkathi kwamalanga namasonto • nokuguqula okuphakathi kwamasonto nezinyanga Ukusebenzisa amawashi ukubala ubude besikhathi ngokwamahora noma isigamu sehorase.		Ngesikhathi sokusebenza ngokuzimela abafundi baqhubeke benze imisebenzi ehambisana nokushiwo kwesikhathi ngokwamahora, isigamu sehora kanye nekota lehora njengoba kukhonjisiwe kumawashi lezinti. Abafundi bangenza izibalo besebenzisa amasonto noma izinsuku uma benikeziwe ikhalenda noma ingxenye yekhalenda, isib. Ukubheka izinsuku bese bebala umehluko wesikhathi phakathi kwazo. **Isikhathi Sewashi** • Isikhathi siboniswe ngesikhathi sosuku esithatha isimo samahora angu 12 ez-intweni eziningi ezisetshenziswa ekhaya.isib. omakhalekhukhwini, iziifudumezi zokudla (microwaves) imisakazo yokudlala ama CD nama DVD njll. Abafundi bangabuye balwejwayele kangcono loluhlobo lwesikhathi kunohlobo lwama-washi ezinti. Izifundo ezintathu zingakusiza ukthi ukwazi ukwejwayeza abafundi isimo sesikhathi sosuku esingamahora ayi 12. • Khumbuza abafundi ukuthi lokhu kuchaza ini a.m. and p.m. • Khombisa abafundi ukuthi yiziphi izinombolo ezimele amahora, kanti futhi yiz-iphi ezimele imizuzu ngesikhathi sosuku. • Chaza ukuthi kunemizuzu engu 60 kwihora; ngakhoke kunemizizu engu 30 esigamini sehora kanti kunemizuzu engu 15 kwikota lehora. Lokhu kuzosiza abafundi ukuba bakwazi ukuxhumana okuphakathi kwamahora kanye nemi-zuzu, izigamu zehora, ikota lehora kanye namawashi ezinti, okuyizinto ebebez-enza eBangeni lesi 2. • Nikeza abafundi isikhathi esanele sokubuyekeza ukufunda isikhathi sewashi lezinti esingamahora ayi 12. Iba newashi lezinto elibekiwe ekilasini.Cela abafundi ukuthi balokhu bekutshela isikhathi phakathi nosuku unyaka wonke. Abafundi abenze imifanekiso yamawashi, abangawasebenzisa ukusho isikhathi babuye babale umehluko wezikhathi.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
4.2 **Ubude**	**ISILINGANISO okungahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala ubude usebenzisa izikali ezingenasilinganiso isib. izandla, amagxathu, ubude bepensela, izinto zokubala njll. • Chaza ubude bezinto ngokubala bese ushoubude bamayunithi angahlelekile. • Sebenzisa ulimi ukukhuluma ngokuqhathanisa isb. Kude kuna, kufishane kuna, kuphakeme kuna nokubanzi. **Ukwethula Isilinganiso esihlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala ubude usebenzisa imitha(noma irula eliyimitha, noma intambo eyimitha) njengesikali sobude esilinganisiwe.		EBangeni lesi 2 kwakunconyiwe ukuthi abafundi bagxile ekuqageleni, ekulinganiseni, ekuqhathaniseni kanye nokubhala phansi ubude, ububanzi kanye nokuphakama • Ngamayunithi angahlelekile, kanye • Nokukala besebenzisa irula eliyimitha noma intambo eyimitha Ngesikhathi sokusebenza ngokuzimela abafundi bangazilolongela lamakhono okulinganisa **Ukulinganisa ubude njengendlela yokuxazulula izikinga zezibalo** Ngesikhathi esibekelwe ukufundisa Izinombolo, Izimpawu kanye nobudlelwano bazo, abafundi bangaxazulula izinkinga ezimweni • Zezilinganiso ezingahlelekile zobude, kanye • Nokulinganisa ubude ngamamitha Nakisisa uhla lwezinimbolo olufanele lethemu, kanye nohla lwezinhlobo zezinkinga ezifanele kulethemu. Izifundo ezizogxila ekulinganiseni ubude zizoqala eThemu 2	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
4.2 **Ubude**	• Qagela bese ulinganisa ubude ngamasentimitha usebenzisa irula Akudingekile ukwenziwa inguguquko phakathi kwamamitha kanye namasentimitha			
4.3 **Isisindo**	**izilinganiso ezingahlelekile** • Qagela, linganisa, qhathanisa, hlela bese ubhala isisindo usebenzisa izilinganiso ezingahlelekile kanye nokulinganisa okuzimelele isib amabhuloki, izitini njl. • Sebenzisa ulimi ukukhuluma ngokuqhathanisa isb. lula, sinda,elula kuna, esinda kuna **Ukwethula isilinganiso okuhlelekile.** • Qhathanisa, hlela bese ubhala isisindo sezinto ezithengisayo isisindo sazo esibhalwe ngamakhilogramu isib. 2 amakhilogremu yelayisi kanye no 1 kilogram kafulawa noma ngamagremu isib 500 amagremu kasawoti		EBangeni lesi 2 abafundi • Balinganisa isisindo ngokungahlelekile besebenzisa ISILINGANISO okuzimelele; • Bahlele izinto ngokwesisindo esichaziwe ephaketheni; noku • Funda izikali zasendlini yokugeza (kokubili izikalo zangempela kanye nezikalo zezithombe). Ngesikhathi sokusebenza ngokuzimela, abafundi bangenza ngokuphindelela lamakhono okulinganisa. **Ukulinganisa isisindo njengendlela yokuxazulula izinkinga nokwenza izibalo** Ngesikhathi esibekelwe ukufundisa Izinombolo, Izimpawu kanye nobudlelwano bazo, abafundi bangaxazulula izinkinga ezimweni • Izilinganiso ezingahlelekile zesisindo; kanye • Nokulinganisa isisindo ngamakhilogremu Nakisisa uhla lwezinimbolo olufanele lethemu, kanye nohla lwezinhlobo zezinkinga ezifanele kulethemu. Izifundo ezizogxila ekulinganiseni isisindo zizoqala eThemu 2	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
4.3 **Isisindo**	• Ukuzikala isisindo sabo ngokwamakhilogremu besebenzisa isikali sasendlini yokugeza Akudingeki nguquko phakathi kwamagremu kanye namakhilogremu			
4.4 **Umthamo/o ku-mumethwe**	**Izilinganiso ezingahlelekile** • Qagela bese ulinganisa, qhathanisa bese uhlela umthamo wezitsha (isib. umthamo isitsha esingawumumatha uma sigcwele) usebenzisa izilinganiso ezingahleliwe isib. izipuni kanye nezinkomishi. • Chaza uthamo wesitsha ngokubala nokusho ukuthi kuthatha amayunithi angahlelekile amangaki ukugcwalisa isitsha isib.ibhodlela linomthamo wezinkomishi ezine	**Izilinganiso ezingahlelekile** • Qagela bese ulinganisa, qhathanisa bese uhlela umthamo wezitsha (isib. umthamo isitsha esingawumumatha uma sigcwele) usebenzisa izilinganiso ezingahleliwe isib. izipuni kanye nezinkomishi. • Chaza uthamo wesitsha ngokubala nokusho ukuthi kuthatha amayunithi angahlelekile amangaki ukugcwalisa isitsha isib.ibhodlela linomthamo wezinkomishi ezine	**Yini okwehlukile eBangeni 2?** EBangeni 2 abafundi • baqagelile, balinganisa,baqhathanisa,bahlela base bebhala phansi umthamo wezitsha noma okumumethwe besebenzisa izikali ezingenasilinganiso • baqhathanisile, bahlela umthamo wamabhodlela ahlukene nezinto ezisetshenziswa ekhaya lapho umthamo wazo ubhaliwe emaphaketheni; baphinde • Basebenzise noma ilitha elilodwa lebhodlela noma ilitha elilodwa likajeke ukuqagela, nokulinganisa, ukuqhathanisa, ukuhlela bese ubhala sezitsha noma okumumethwe ngokwamalitha EBangeni lesi 3 abafundi bethulwa kumamililitha. **Yini umthamo? Yini okumumethwe?** Ibhodlela lingaba nomthamo welitha elilodwa kodwa lingase lingagcwali mfi, lingase Isib. limumathe umthamo wenkomishi eyodwa yamanzi. Umthamo ubungako bento engamumathwa isitsha (noma ubungako besikhala esingaphakathi kwento). Umthamo ubungako besikhala into enga naso. Ngesinye isikhathi abafundi bazobe belinganisa ukuthi kunoketshezi olungakanani (noma isihlabathi noma ngabe uhlobo oluthile) kulesositsha. Lokhu kuwisilinganiso umthamo wento esesitsheni. Ngezinge izikhathi abafundi bazobe belinganisa ukuthi isitsha uma sigcwele singamumatha umthamo ongakanani.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
4.4 **Umthamo/o kumumethwe**	**Ukwethula isilinganiso okuhlelekile.** • Qagela, linganisa qhathanisa,hlela bese ubhala phansi umthamo wezinto ngokulinganisa ngakwamalitha, isigamu samalitha, kanye nekota yamalitha • Qhathanisa, hlela bese ubhala phansi izinto ezihlelelwe ukuthengisa umthamo wazo obhalwe ngokwamalitha isib 2 amalitha obisi, ilitha elilodwa yesiphuzo esibandayo, 5 amalitha kapende noma ngamamililitha, isib. 500 ml yobisi, 340 amamillilitha wesiphuzi, 750 ama millilitha kawoyela • Yazi ukuthi inkomishi enesilinganiso inamamililitha awu 250 • Yazi ukthi isipuni setiye singamamililitha awu 5 Akukho nguquko elindelekile phakathi kwamamililitha namalitha	**Ukwethula isilinganiso okuhlelekile.** • Qagela, linganisa qhathanisa,hlela bese ubhala phansi umthamo wezinto ngokulinganisa ngakwamalitha, isigamu samalitha, kanye nekota yamalitha • Usebenzisa amabhodlela anesisindo selitha 1 noma isitsha, umthamo wazo obhalwe ngokwamamililitha isib amakani eziphuzo. • Ojeke abanamagabelo amalitha, izigamu zamalitha namakota elitha. • Ojeke abanamagabelo akhombisa amamamililitha. Abafundi abalindelekile ukuba bakwazi ukufunda umthamo wamagabelo angenazinombolo • Izinkomishi zokulinganisa nezipuni zetiye ezikhombisa umthamo.	Abafundi kumele baqhubeke isilinganiso besebenzisa amayunithi angenasilinganiso. **isilinganiso okungahlelekile komthamo kusetshenziswa amayunithi angalinganisiwe.** Abafundi bangafunda imigomo nezindlela zokulinganisa besebenzisa amayunithi angalinganisiwe. isilinganiso kusetshenziswa amayunithi angesilinganiso makungathathwa njengento engabalulekile kunesikalo ezilinganisiwe. Abafundi kumele bathole ithuba lokulinganisa umthamo/okumumethwe besebenzisa izinhlobo zezinto njengamayunithi angalinganisiwe. Isib. Izinkomishi, (kungesizo ezokulinganisa okwangempela), izipuni (kungesizo izipuni zokulinganisa okwangempela), izivalo zamabhodlela njengezivalo zamabhodlela obisi angamalitha ama 2, amathini amancane, amabhodlela amancane njll. Isilinganiso umthamo/ okumumethwe ngamayunithi angenasilinganiso kubandakanya ukubala ukuthi uthele izikhathi ezingaki kuthathwa kulesosilinganiso esilinganiswayo. Abafundi kumele bafundiswe ukuhlala njalo bechaza amayunithi isib.kunezipuni ezincane zamanzi ezingama 48 ebhodleleni noma kunamanzi angaphansi nje kwesigamu senkomishi ebhodleleni. Uma abafundi sebelinganisile nganoma iyiphi iyunithi izikhashana ezimbalwa nje, kufanele baqagele umthamo/ okumumethwe besebenzisa leloyunithi.Ukuqagela ngaphambi kokulinganisa kubalulekile, kodwa kungenziwa kuphela uma abafundi sebeke balinganisa ngaleyoyunithi ngaphambilini. Abafundi kumele bafundiswe ukuthi ukuze bakwazi ukuqhathanisa umthamo noma okumumethwe, kumele kusetshenziswe iyunithi elifananayo. Isibonelo, uma ingilazi iphatha izipuni ezincane zamanzi ezingu20, kanti inkomishi iphatha izipuni zokudla eziyi 10 zamanzi, ungeze washo ukuthi ingilazi iphethe amanzi amaningi.	2 Izifundo

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
4.4 **Umthamo/o kumumethwe**		• Qhathanisa, hlela bese ubhala phansi izinto ezihlelelwe ukuthengisa umthamo wazo obhalwe ngokwamalitha isib 2 amalitha obisi, ilitha elilodwa yesiphuzo esibandayo, 5 amalitha kapende noma ngamamililitha, isib. 500 ml yobisi, 340 amamillilitha wesiphuzi, 750 ama millilitha kawoyela • Yazi ukuthi inkomishi enesilinganiso inamamililitha awu 250 • Yazi ukthi isipuni setiye singamamililitha awu 5 Akukho nguquko elindelekile phakathi kwamamililitha namalitha	Abafundi kumele balinganise izinhlobo ezahlukane zamayunithi alinganisiwe,ukuze • Bakwazi ukuqonda ukuthi ubuncane beyunithi, busho isikhathi esengeziwe ozosidinga ukusisebenzisa ukugcwalisa into ethile isib. Umthamo webhodlela ungase ube yizipuni zokudla ezi 20 ezigcwele mfi, kodwa futhi inkomishi e 1; • Baqala ukusebenzisa amayunithi ahambisana nalokho okulinganiswayo. Isib.ISILINGANISO ibhodlela eligcwele lamalitha a-2 ngezipuni kuyasichitha isikhathi. **Ukwethula isilinganiso okuhlelekile.** Qagela, linganisa, qhathanisa, hlela bese ubhala phansi umthamo kanye nokumumethwe ngokwamalitha. Khumbuza abafundi ukuthi amalitha angamayunithi ayisilinganiso esejwayelekile okulinganisa umthano kanye nokumumethwe.Indlela efingqiwe (I) isetshenziswa kakhulu kojeke bokulinganisa kanye nasezimpahleni zokuthengisa, ezithengiswa ngomthamo. Hlola ukuthi abafundi bayasikhumbula ukusho ngokufingqiwe amalitha. Abafundi balinganisa ngamalitha besebenzisa: • Izitsha ezinelitha eli1 ezifana namabhodlela eziphuzo ezibandayo, amabhodlela obisi, amakhathoni obisi, amakhathoni eziphuzo; kanye • ojeke bokulinganisa ababonisa amagabelo akhombisa ilitha. Bayaqagela babuye balinganise umthamo wezitsha ezahlukahlukene ezifana nezitsha ezinkulu eziphatha uyogadi, u ayisikhilimu, izitsha zokufaka ukudla kwesidlo sasemini, ojeke abakhulu, amabhodlela amakhulu, amathini angenalutho opende, amabhakede njll. Kufanele kukhethwe izinto ezinemithamo eyahlukene. Abafundi bachaza umthamo ngokuthi bathi “ngaphansi kwelitha elilodwa, amalitha amabili, phakathi kwelitha eli 1 noma amalitha ama 2, amalitha ama 5” njll. • Abafundi baqhathanisa, bahlele bese bebhala phansi umthamo wezinto ezihlelelwe ukuthengisa umthamo wazo obhalwe ngokwamalitha isib 2 amalitha obisi, ilitha elilodwa yesiphuzo esibandayo, 5 amalitha kapende • Qagela, linganisa, qhathanisa, hlela bese ubhala umthamo nokumumethwe ngamamililitha.	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
4.4 **Umthamo/o kumumethwe**			Khuluma nabafundi mayelana namamililitha njengesilinganiso esejwayelekile sokulinganisa umthamo kanye nokumumethwe. Bachazele ukuthi amamililitha angamayunithi amancane kunamalitha. Kumele bafunde igama kanye nendlela efingqiwe, ngoba ezitsheni eziningi zokuthengiswayo kanye nojeke bokulinganisa kusetshenziswa indlela efingqiwe yamagama. Abafundi kumele baqhathanisa, bahlele, bese bebhala phansi izinto ezihlelelwe ukuthengiswa, umthamo wazo obhalwe ngamamililitha, isib. 500ml yobisi, 750ml kaviniga, 330ml wesiphuzo esibandayo, 400ml kapholishi waphansi njll. Abafundi kumele balinganise njalo futhi ngokwanele nge: • sikali esilinganisiwe senkomishi, ukuze bakwazi ukuqonda ukuthi kungakanani okuwu 250 ml • izipuni zetiye zokulinganisa ukuze bakwazi ukuqonda ukuthi kungakanani okuwu 5 ml; • ojeke bokulinganisa abanamagabelo angamamililitha - lapha kulindeleke ukuba abafundi bakwazwi ukufunda izinombolo zamagabelo okulinganisa ezibhaliwe kuphela- bazogxila ekufundeni amagabelo okulinganisa angenazinombolo uma sebefunda emabangeni aphakathi. Ukulandela uhla lwezinto ozozisebenzisa, ufaka ubhaka, kuyisimo esingasiza abafundi ukuzilolongela isilinganiso. Abafundi abalindelekile • ukwazi ukuthi 1 000 ml = 1 ilitha • ukwenza uguquko phakathi kwamamililitha, kanye namalitha, noma • Ukufunda amagabelo ojeke bokulinganisa angenazinombolo (lokhu kwenziwa eBangeni lesi 4) **Ukubhalwa phansi kwezilinganiso** Noma isilinganiso kuyikhono lokwenza, abafundi kumele bazibhale phansi ngaso sonke isikhathi izilinganiso zabo, ezimbandakanya isilinganiso okungahlelekile noma okuhlelekile.	

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4.4 **Umthamo/o kumumethwe**			**Ukulinganisa umthamo/ okumumethwe njengesimo yokuxazulula izinkinga kanye nokwenza izibalo** Ngesikhathi esibekelwe ukufundisa Izinombolo, Izimpawu kanye nobudlelwano bazo, abafundi bangaxazulula izinkinga ezimweni • isilinganiso okungahlelekile komthamo/ okumumethwe: isib.Ugogo usebenzisa izinkomishi ezimbili zobisi ukwenza uphudini. Uma ephinda kabili uhla lwezinto okumele azisebenzise (iresiphi), uzodigna ubisi olungakanani? • amalitha • amamililitha Nakisisa uhlelo lokuthuthukisa izinombolo olufanele ltthemu, kanye nohlelo lwezinkinga ezahlukene ezifanele.	

ITHEMU YOKU- 1 YEBANGA LESI-3 5. UKUQOKELELWA KOLWAZI				
IZIHLOKO	**ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1**	**AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** **(ngokwesifundo esingangehora nemizuzu engu 24)**
5.4 **Qoqa bese uhlela ulwazi**	**Qoqa bese uhlela ulwazi** • Qoqa ulwazi olumayelana nekilasi noma isikole ukuze bakwazi ukuphendula imibuzo ebuzwe wuthisha • Hela ulwazi oluvela kuthisha noma encwadini • Hlela ulwazi olutholakala: - kuhlu - kumathali - kumathebula	**Qoqa bese uhlela ulwazi** • Qoqa ulwazi olumayelana nekilasi noma isikole ukuze bakwazi ukuphendula imibuzo ebuzwe wuthisha Ukusebenzisa amathali ukubhala phansi ulwazi ohleni olunikeziwe	**Yini okwahlukile eBangeni 2?** • Abafundi bahlela ulwazi benze uhla, amathali, namathebula • Abafundi bathulwa kuma bar grafu • Abafundi baqhubeka ngokusebenza negrafu yezithombe - besebenzisa womabili amagrafu njengengxenye yolwazi oluphelele bebe behlaziya igrafu yezithombe abayinikiwe. **Ulwazi oluphelele** Ekuqoqweni nasekuhleleni kolwazi oluphelele • Abafundi baqoqa ulwazi ukuphendula imibuzo. Emabangeni aphansi kanye naphakathi lombuzo uvame ukuvezwa wuthisha noma ubesencwadi; • Abafundi bahlela bamele ulwazi ngezindlela ezenza kubelula ukuhlaziya. Indlela yesifanekiso esisetshenziswa ngabafundi bebanga lesithathu; uhla, amathali, amathebula, igrafu yezithombe kanye ne bar grafu; kanye • abafundi bahlaziya ulwazi ngokuphendula imibuzo ebuzwe wuthisha. I bar grafu yekilasi Kuyanconywa ukuthi abafundi bebanga lesithathu basebenze ngalolonke ulwazi oluphelele okungenani kanye ngonyaka: Ukusebenza bebonke njengekilasi kusiza abafundi ukuba bazimbandakanye kuwo wonke amabanga ohlelo ngaphandle ngokuduka nakunoma ikusiphi isigaba. Ukwakha bar grafu yekilasi kukuvumela ukuba ugxile kumaphuzu abalulekile okuqoqa nokuhlela ulwazi kanye nokwethula abafundi kumaphuzu asemqoka e bar grafu • ukuthi kubhalwa kuphi futhi kanjani kwigrafu (isihloko segrafu) • ukuthi kubhalwa kuphi futhi kanjani emigqeni yegrafu • ukuthi udweba kanjani ama bar - dweba ubude be bar ngendlela efanele ukukhombisa ulwazi. - yenza ama bar grafu alingane ngobubanzi - shiya isikhala phakathi kwama bar - bhala ibar ngayinye ngokucacile	3 Izifundo
5.5 **Bhala ukumela ulwazi**	**Bhala ukumela ulwazi** Bhala ukumela ulwazi • Igrafu yezithombe • Bar grafu	**Bhala ukumela ulwazi** Bhala ukumela ulwazi • Ithebula • Bar grafu		
5.6 **Hlaziya bese uhumusha ulwazi**	**Hlaziya bese uhumusha ulwazi** Phendula imibuzo ngolwazi olumelwe • Igrafu yezithombe • ibha grafu	**Ukuhlaziya bese uhumusha ulwazi** Phendula imibuzo ngolwazi olutholakala kubar grafu k		

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
			- indlela yokufunda igrafu Abafundi kumele bazi ukuthi kubalulekile ukufunda isihloko segrafu kuqala, ukuze bazi ukuthi lololwazi lumayelana nani. Kumele babuye bafunde izihloko emigqeni ehamba ivundle noma yehle Abafundi akudingekile ukuba bawazi amagama asetshenziswayo ukuchaza izingxenye zegrafu, okubalulekile nje ukuthi bafunde “eceleni” nange “zansi” ukuze babone ukuthi igrafu imayelana nani. Sivamise ukufunda ukusuka ngasesandleni sobunxele ukuya ngakwesokudla, kodwa uma abafundi befunda amagrafu kumele bafunde ukusuka ngakwesobunxele ukuya ngakwesokudla nokusuka phansi ukuya phezulu. Lokhu kumele kuchazwe kubafundi. Kudingeka babuye bazilolonge kulamakhono. Ukusebenza ngolwazi oluphelele kungathatha izifundo ezintathu. **Ukuqoqa nokuhlela ulwazi** EBangeni lesithathu kumele ubuze imibuzo ezovumela abafundi ukuthi baqoqe ulwazi isib. Yimiphi imibala ethandwa kakhulu ekilasini lethu? Othisha bakulamabanga kumele baqiniseke ukuthi kukhethwa izihloko ezahlukene ukuqokelela ulwazi bese belihlaziya kumabanga ahlukene. Izihloko ezifanele zifaka ezemidlalo, iziphuzo ezibandayo ezithadwayo, imiba eyintandokazi, izikhathi ezedlule eziyintandokazi, izidlo eziyintandokazi, uhlelo oluyintandokazi lukamabonakude njll. Abafundi bangaqale basho imibono yabo. Uma nje uthola ulwazi lwezimpendulo ezahlukahlukene kumele ubekele abafundi izinhla abangakwazi ukukhetha kuzona.Yenza abafundi ukuba bazilolongele kwizindlela ezehlukene zokuhlela ulwazi ezingeyona igrafu, njengamathali, uhla kanye namathebula. isib.: • yeza uhla lwamagama lwabafundi ngaphansi kwesihloko abasikhethile; • Khombisa abafundi ukuthi enziwa kanjani amathali esuselwa ohleni (ukufundisa amathali kungathatha isifundo sonke); • Enza ithebula ngezinombolo eziphuma kumathali akumathebula Uma ulwazi selukumathebula, khombisa abafundi ukuthi idwetshwa kanjani ibar grafu (bheka imihlahlandlela ebhalwe ngaphezulu).	

IZIHLOKO	ULWAZI NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	ULWAZI NAMAKHONO OKUGXILWA KUWO KUTHEMU 1	AMANYE AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
			Ukuhlaziya nokuhumusha kolwazi Abafundi baphendula imibuzo oyibuzayo mayelana negarafu yezithombe Isib: a) “Yimuphi umbala ovamile ekilasini lethu?” b) “Yimuphi umbala oyintandokazi wabafundi abambalwa ekilasini?” c) “Ingabe abafundi abaningi bathanda …. noma … ?” d) “Bangaki ngaphezulu abafundi abakhetha uku … kunoku … ?”	

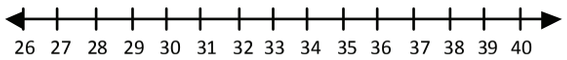
ITHEMU YESI-2 YEBANGA LESI- 3 1. IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANO BAZO				
IZIHLOKO	**IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA**	**IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1**	**AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** **(ngokwesifundo esingangehora nemizuzu engu 24)**
1.1 **Ukubala izinto**	**Ukubala izinto eziqotho.** Qagela uphinde ubale ngokwethembeka okungenani 1000 izinto mihlayonke. Ikhono lamaqembu liyakhuthazwa.	Iqembu okungenani inani 500 Izinto mihlayonke ziqagelwa ngokwethembeka. Nikeza isizathu esizwakalayo, ngezinto ezingahlolwa ngokubala.	**Yini umehluko kusukela kuthemu1?** Inani linwebeka laze lafika 500. Ukunwebeka kwaleli nani lisho ukuthi abafundi banga: • izinto zibalwa ngamaqembu • Ukubala ngamashumi ukuze kufike ku 500.bese usho izinombolo ngokulandelanisa. Futhi • Hlela izimpawu ukuze kufike esibalweni ngokubhala izinombolo noma ubonise inamba ngendawo ye value cards. • Bona amanothi ethemu 1	
1.2 **Ukubala uqhubekela phambili uphinde ubale uhlehlele emuva.**	**Ukubala uya phambili ubuye uye emumva**: • 1 ukubala ngakunye kusukela noma kuyiphi inombolo esukela 0 naku 1000 • Ngama-10 kusukela kusukela kunanoma iyiphi inombolo ngokuphindaphinda phakathi koku-0 kuya e-1000 • Ngaku-5 ngokuphindaphinda phakathi koku-0 kuya e-1000 • Ngaku-2 ngokuphindaphinda phakathi koku-0 kuya e-1000 • Ngaku-3 ngokuphindaphinda phakathi koku-0 kuya e-1000	• ukubala nga-1 kusukela noma kuyiphi inombolo esukela 0 naku 500 • Ngama-10 kusukela kusukela kunanoma iyiphi inombolo ngokuphindaphinda phakathi koku-0 kuya e-500 • Ngaku-5 ngokuphindaphinda phakathi koku-0 kuya e-500 • Ngaku-2 ngokuphindaphinda phakathi koku-0 kuya e-500 • Ngaku-3 ngokuphindaphinda phakathi koku-0 kuya e-500 • Ngaku-4 ngokuphindaphinda phakathi koku-0 kuya e-500	**Yini umehluko kusukela kuthemu1?** Kulelithemu abafundi bayoqala ukubala ngamashumi amahlanu 50. Inombolo liyakhuphuka lize lifike ku 1000. Kulelithemu abafundi bayoqhubeka nokuthi benze ukweqa bebala bephindaphinde ngamatafula kanye nokunikeza izinombolo izehlakalo. Bona amanothi ethemu 1	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.2 Ukubala uqhubekela phambili uphinde ubale uhlehlele emuva.	• Ngaku-4 ngokuphindaphinda phakathi koku-0 kuya e-1000 • Ngama-20, 25, 50, 100 kuyofika 1 000	• Ngama-50, 100 kuyofika 1 000		
1.3 Nikeza izinto amagama bese lamagama enikezwa izinombolo.	**Bona,ukhombe uphinde ufunde izinombolo** • Bona,ukhhombe uphinde ufunde izimpawu izinombolo ngezinto kusukela koku-0 -1000 • Bhala izimpawu zezinombolo ziqala koku- 0-1 000 • Bhala izimpawu zezinombolo ziqala koku-0-1 000 • Bhala izimpawu • zezinombolo ziqala koku- 0-1 000	**Bona,ukhombe uphinde ufunde izinombolo** • Nikeza,ukubona uphinde ufunde izimpawu zezinombolo kusukela koku-0 - 1000 • Bhala izimpawu ngezinombolo ziqala koku-0-1 000 • Bhala izimpawu zezinombolo ziqala koku- 0-250 • Bhala izimpawu zezinombolo ziqala koku- 0-250	Ukufunda nokubhala izimpawu zezinombolo kuyaqhutshekwa nokwenziwa ngoku: • Ukubala ngezinto • Ukubala uye phambili nokubala uye emuva • Ukuqedela ukulandelana kwezinombolo, futhi • Ukuhlela nokuqhathanisa izinombolo Bheka amanothi kathemu 1	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.4 **Chaza, uqhathanise bese uhlela izinombolo**	**Hlela bese uqhathanisa izinombolo ufinyelele ama- 999** • Chaza ubuye uqathanise izinomboloeziphelele kufinyelele ema- 999 usebenzisa inani elincane kunelinye, noma elikhulu kunelinye, eliningi kunelinye, elincanyana kanye nokulinganayo • Chaza ubuye uqathanise izinomboloeziphelele kufinyelele ema- 999 uzisusela kunani elincane, ukuya kwelikhulu, uphinde usuke kwelikhulu uyekwelincane. **Sebenzisa izinombolo zesikhundla ukubonisa uhla, indawo nesikhundla** • Sebenzisa ukubhala ukufunda nokubhala ngezinombolo zezikhundla zifinyelele ema- 31	**Hlela bese uqhathanisa izinombolo ufinyelele ama- 500** • Chaza ubuye uqathanise izinomboloeziphelele kufinyelele ema- 500 usebenzisa inani elincane kunelinye, noma elikhulu kunelinye, eliningi kunelinye, elincanyana kanye nokulinganayo • Chaza ubuye uqathanise izinomboloeziphelele kufinyelele ema- 999 uzisusela kunani elincane, ukuya kwelikhulu, uphinde usuke kwelikhulu uyekwelincane. **Sebenzisa izinombolo zesikhundla ukubonisa uhla, indawo nesikhundla** • Sebenzisa ukubhala ukufunda nokubhala ngezinombolo zezikhundla. zifinyelele ema- 31.	Kulelithemu inani liyanwebeka ukusuka 99 kufike 500. Abafundi manje bahlela amadijithi amathathu ezinombolo. Ukuhlela amadijithi amathathu, abafundi bafanele: • Basho igama lenombolo • Babhale inombolo; futhi • Babone ukubaluleka kwedijithi ngalinye Abafundi kufanele bavunyelwe basebenzise inamba layini, ukulalndela umkhondo, amagridi ezinombolo kanye futhi nolwazi lwabo lokusebenzisa izinombolo nokwenza izibalo. Ukusebenzisa izinombolo ukwenza amakhulu, amashumi, kanye nokwenza okunye, ukuze kubonakale ukuthi bayaqonda. Uma abafundi begunyaza izinombolo, bayakwazi uksebenzisa inombolo enkulu kunenye kanti nesiko lamadijithi lizichaza kwalona. Isibonelo: 239 incane kuno 339 ngoba Umfundi uzokwazi ukuchaza ukuthi 300 mkhulu kuno 200 ngokusebenzisa izinsiza ezibunjiwe ukukhombisa inani 100s kunombolo ngayinye. Abafundi bangathola isikhundla senamba kunambalayini ngokusho ukuthi 339 uza emuva 239 ngakhoke ngiyazi ukuthi yiyo inamba enkulu.	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.5 **Inani lenombolo**	**Bonisa Indawo nokubaluleka kwayo ngezinombolo zamadijithi amathathu afika 999** • Kufanele ukuthi idijithi ngalinye lisho ukthini • Hlakaza amadijithi 3 kuze kufike 999 ngokuphindaphinda ka 100, ngokuphindaphinda ka 10, kayishumi kanye nokuphiondaphinda kanye (HTU) • Bonisa uphinde uchaze idijithi ngayinye.	**Bonisa Indawo nokubaluleka kwayo ngezinombolo zamadijithi amathathu afika 999** • Kufanele ukuthi idijithi ngalinye lisho ukthini • Hlakaza amadijithi 3 kuze kufike 500 • ngokuphindaphinda ka 100, ngokuphindaphinda ka 10, kayishumi kanye nokuphiondaphinda kanye (HTU) • Bonisa uphinde uchaze idijithi ngayinye.	**Yini umehluko kusukela kuthemu1?** Kulelithemu lesibili abafundi bayohlakaza amadijithi amathathu ngesi khathi sokuqala. Indawo nokubaluleka kwayo, yengeziwe ukufakela amakhulu. Abafundi bayoqonda ukubaluleka kwendawo, nokuyithuthukisa ngokubuza imibuzo enjengo thola ishumi, okuningi noma okuncane kunenombolo. Njenge nhlalayenza ukuthuthukisa ukubaluleka kwesimo, abafundi kufanele bakwazi ukubala ngokuzethemba ngama -100, bazitholele amaphethini ahlobene nokubaluleka kwendawo, bakwazi ukuzakhekhela izibalo bahlanganise babuye bahlukanise ngokubili nokuthathu kwamadijithi Abafundi bafanele banikezwe isikhathi esilingeneyo, amathuba okwakha amadijithi amathathu ngezinombolo besebenzisa amabhuloki kadienes namabhuloki kanye namabhulokiesisekelo sokwakha. Kubalulekile ukuhlanganisa ukuze kwenzeke 100 nokuqala ukubona 100 njengento eyodwa. Abafundi kufanele babuzwe ukuthi mangakhi amaqembu 100 abanawo. Ukubaluleka kwamakhadi endawo kufanele kusetshenziswe ukuveva izinombolo. Ukusebenzisa u diens nesisekeko sika 10 samabhuloki lokhu okulandelayo imibuzo nemithetho ingabuzwa noma inikezwe. • Mangakhi 100 aku 300,400,500 • Bhala lezizinombolo ezilandelayo: 256,387,499 Kuleli themu abafundi bafunda okushiwoyo nokubhalwayo phansi kanye nokubaluleka kwamadijithi ezinombolweni ngo 452 ukubaluleka kuka 5 emashumini amahlanu. Ngo 325, ukubaluleka kuka 5 okuhlanu. Kubaluleke kakhulu ukuhlanganisa nokuqonda ukuthi 50 ku 5 wezinyada ezinhlanukubalulekile ukuhlnganisa nokuqonda ukuthi Indawo nokubaluleka kwamakhadi iyalingana ngokubaluleka. Indawo nokubaluleka kwamakhadi kusetshenziswa ukuhlakaza izinombolo ukuze kuvele ukubaluleka kwedijithi ngalinye. 637 = 600 + 30 + 7 Abafundi bangenza amasethi abo endawo nokubaluleka kwamakhadi. I -emvilophi inganamekwa emuva encwadini yokufundela yomsebenzi wasekilasini amakhadi afkwe kuyo lemvilophi. Amakhadi angasetshenziswa noma kubalwa futhi kungaba yenye indlela abathola ngayo imiphumela.	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.5 **Inani lenombolo**			Sebenzisa ama Amakhadi enani nobungako benombolo ukufundisa ngalokhu.  **Hlakaza amadijithi amabili ezinombolo uwaphindephinde abe ngamakhulu, amashumi kanye nokunye** Abafundi bangahlakaza izinombolo bazenze: Amakhulu,amshumi kanye nokunye okubalulekile e.g. 273 = 200 + 70 + 3 (Amakhadi endawo ayasetshenziswa ukwenza lokhu) • Ukuphindaphinda ngamashumi nokunye e.g. 273=2 amakhulu, 7 amashumi + 3 okunye **Ukwakha amadijithi amabili ezinombolo kususelwa ukbaluleka kwamakhadi endawo** Isibonelo: Bhala lenombolo 1 ikhulu namashumi amathathu 2 amakhulu kanye 4 amashumi kanye 5 ngakunye 2 amakhulu +9 amashumi + 2 okunye 3 amakhulu +5 amashumi + 7 okunye Isibonelo: Esiphelele: a) 346 = 300 + □ + 6 b) 400 + 20 + 8 = □	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
Ukuxazulula izinkinga ezisesimweni esejwayelekile				
1.6 **Amathekinisi okuxazulula izink-inga**	Sebenzisa lamathekinisi alandelayo uma uxazulula izinkinga, uphinde uchaze ukuthi izinkinga lezo: • Ukwakha izinombolo nokuzihlakaza futhi. • Ukuphindaphinda nokugamula • Inamba layini • Ukuqoqela okwamashumi	Sebenzisa lamathekinisi alandelayo uma uxazulula izinkinga, uphinde uchaze ukuthi izinkinga lezo: • Ukwakha izinombolo nokuzihlakaza futhi. • Ukuphindaphinda nokugamula • Inamba layini • Ukuqoqela okwamashumi	Abafundi bazoqubeka besenzisa izinkinga zamagama besenzisa lamathekisi alandelayo. • Ukwakha nokuhlakaza izinombolo • Ukuphindaphinda nokugamula • Inamba layini **Yini umahluko kumehluko kusukela kuthemu 1** Kuleli themu abafundi bangaqalisa ukufinyezela mduzane 10. Ukusondezela lokhu okujwayelekile kwendlela eqagelayo. Uma umfundi emuhle ngokuqagela amakhono akhe mawaqikelelwe aphinde alalelwe. Phambi kokuthi abafundi bangasebenzisa leliqhinga lokusondezela uma behlanganisa, besusa kufanele bazilolonge ngalethekinisi kuqala. Lokhu kungenziwa ngokusebenzisa inamba layini: Isibonelo:  • Ama- 33 asondele kuma- 30 noma ama-40? • Ama-37 asondele kuma-30 noma ama 40? Abafundi kufanele bakwazi lokhu: Ama-35 aphakathi nendawo nama- 30 kanye nama-40. Sithi ngaloko ukusondelela e-10 eliseduze kuma-35 kuya ema- 40 ngoba siyayisondezela eshumini elikhulu inombolo uma isuka kuhhafu nangaphezulu we-10. Bheka amanothi kathemu 2.	

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1.7 **Ukuhlanagnisa nokususa**	• Hlahlela igama esibalweni uphinde uchaze ukuthi ufike kanjani kuleyompendulo • Yokuphindaphinda ngezimpendulo uze ufike 999	• Hlahlela igama esibalweni uphinde uchaze ukuthi ufike kanjani kuleyompendulo Yokuphindaphinda ngezimpendulo uze ufike 400	**Izinkinga ngezibonelo ezingenziwa kulelithemu** Izibalo noku hlanganisa kanye nokususa • UPhamela wqokelela 413 izivalo zamabhodlela. Uma ngabe UKen 29 amabhodlela uzobe enenani elilanganayo nawakaPamela. • Zingakhi izivalo zamabhodlela abobonke. • Zingakhi izivalo zamabhodlela uKen asenazo kusukela ekuqaleni • Unkosinkazi Zibi weboleke unkosikazi Magadla R80,00. Unkosinkazi Zibi manje usene R366, 00 eyayiesele wayenemalini unkosikazi unkosikazi Zibi kwasekuqaleni? • UJan ufunde amakhasi 115. UNandi ufunde amakhasi 126. Mangakhi amakhasi adlulele kunalawa uNandi edlule weqa kuNandi? • UBonga unamamabuli 218. Unamamabula ehlile kunani lika Anna nge 97 unamamabula angakanani u- Anna?	
1.8 **Ukuhlanganisa ngokuphindelela okuholela ezibalweni zokuphindaphinda**	• Hlahlela igama esibalweni uphinde uchaze ukuthi ufike kanjani kuleyompendulo • Yokuphindaphinda ngezimpendulo uze ufike 99	• Hlahlela igama esibalweni uphinde uchaze ukuthi ufike kanjani kuleyompendulo • Yokuphindaphinda ngezimpendulo uze ufike 75	**Izinkinga ngezibonelo ezingenziwa kulelithemu** Bheka kulelithemu 1 ukuzobona izibonelo uzokwazi izinombolo uzenwebe njengoba. • Umanenja kufanele afake isicelo samathaya emabhisini 8, uma ibhasi lilinye lidinga amathaya 6 nesphele esisodwa, manje mangakhi amathya okufanele imenenja iwacele? • Idamu lokubhukuda lesikole ling 10 amamitha ubude. ULuvuyo ubhukude amamitha angamaxadu 6. Usebhukude kangakanani? **Uhlobo lwenkinga: Uhlelo ngononina** • Ingadi yamaveje inemigqa 12 etshalwe izivande. Umagqa ngamunye unezivande 7 ngakho zingakhi izivande engadini? • Ingadi yamaveje inemigqa 12 etshalwe izivande. Yonke imigqa inenani elilinganayo lezivande. Uma kunesamba senani 48 izivande. Zingakhi izivande emgqeni ngamunye • Izivande zamaveji engadini inani 48 ezilinyiwe ngemigqa. Kunezivande 7 emgqeni ngamunye, mingakhi imigqa isiyonke?	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.8 **Ukuhlanganisa ngokuphindelela okuholela ezibalweni zokuphindaphinda**			**Ubungako kuqatha nobunye** • USamuweli unamaswidi 6 nayisithupha. USamuweli unamaswidi aphindwe kathathu kunamaswidi oMoeketsi • uMarlene unaswidi 18. Lamaswidi aphindwe kathathu kuna Samuel. USamuel unaswidi angakanani. Lolu hlobo lwezibalo luyethulwa okokuqala kuthemu 2. Abafunda bangathatha isikhathi eside benza loluhlobo lwezibalo.	
1.9 **Ukwakha amaqoqo nokuhlukaniselana okuholela ezibalweni** **zokuhlukanisa**	Yenza lezibalo wenze uchaze nezimpendulo ngezibalo ezenziwa njalo njalo nabanye ngamaqembu abunjwa aze afike 100 kwenziwe nezimpendulo ezizofaka izinsalela	Yenza lezibalo wenze uchaze nezimpendulo ngezibalo ezenziwa njalo njalo nabanye ngamaqembu abunjwa aze afike 75 kwenziwe nezimpendulo ezizofaka izinsalela	**Izibonelo zezinkinga ezingenziwa kuleli themu.** Zingakhi izimoto ezidingekayo ukuhambisa izingane 24 uma ngabe abafundi abane bengalingana eqoleni eyodwa? Kunamasokisi angama-65 ediloweni. Mangakhi amapheya amasokisi? **Ukubumba** uDavide uthengisa izikhwama ezinama- olintshi ayishumi. Unama-olintshi 40. Zingakhi izikhwama angazigcwalisa? uThabo unamaswidi 66. Imihla yonke udla amaswidi 3. Mangakhi amalanga angadla ngawo amalanga?	
1.10 **Ukuhlukaniselana okuholela ezibalweni zokuhlukanisa**	Xazulula bese uchaza izixazululo izinkingeni ezenziwayo ezifaka ukwabelana ngokulingana okuholela ezixazululweni ezifaka amaqhezu okuphelele nalawo okungewona okuphelele isib. $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{3}{4}$, $\frac{2}{5}$, njll njll.	Xazulula bese uchaza izixazululo izinkingeni ezenziwayo ezifaka ukwabelana ngokulingana okuholela ezixazululweni ezifaka amaqhezu okuphelele nalawo okungewona okuphelele isib.$\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{3}{4}$, $\frac{2}{5}$, njll.	Kulelithemu 1abafundi bethulwa ku zingqezu ezihlukene isib. 3 amakota noma 2 thirds. Ulwazi olwaneleyo lwethulwe ukuze kwaziwe leziziqhezu. **Izibonelo zezinkinga ezingenziwa kuleli themu.** a) Ukwehlukanisa okuholela ezibalweni zamaqhezu b) Hlukanisa oshokolezi aba-8 phakathi kwabangani aba-3 ukuze bathole inani elilinganayo kuphinde kungasali lutho c) Iqhezu lokuqoqelwe ndawonye d) Thola ikota lamaswidini ama- 20. e) Amaswid ayi- 6 angamaqhezu amangakhi amaswidi angama- 24 f) Ugogo wanikeza amA- R12. Ukiki ugcina okwesithathu ye mali. Yimalini ayigcinile. Loluhlobo lwezibalo lungenziwa ngabafundi, uma sebekhonile ukwenza izibalo ngazine, nanhlanu behlukaniselana ngokuholelayo iziqhezu baphinde bazi izingcezu ezahlukene.	

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1.10 **Ukuhlukaniselana okuholela ezibalweni zokuhlukanisa**			**Ukubhala** Abafundi akumele babhale izimpawu zamaqhezu. Abafundi bayoqhubeka bele-bula amaqhezu oku-1 kokuhlanu, oku-3 kwekota noma oku-3 kokuyisithupha. **Ukwethula amaqhezu ngezinkinga zamagama** Abafundi kufanele bazitholele izimpendulo ukuveza ukuthi bayazithola noma bayakwazi ukwenza izibalo. Kuyadingeka ukuthi abafundi bangathola izimpendulo kahle bangazinikezi igama eliqondile loqhezu. Siza lababafundi ukunikeza igama eliqondile leqhezu. Abafundi kufanele banikeze amaqhezu lezi abazihlukaniselana ngokubhala njenga ku 2 thirds.	
1.11 **Imali**	• Bona uphinde uphinde ukhombe • iImali ewuhlweza noma engamaphepha yaseN-ingizimu Afrika • Xazilula izinkinga ze-mali ngokufaka isamba uwaguqule abe ama-Randi noma masenti. • Guqula phakathi kwa-maRandi namasenti	• Bona uphinde uphinde ukhombe • iImali ewuhlweza noma engamaphepha yaseN-ingizimu Afrika • Xazilula izinkinga ze-mali ngokufaka isamba uwaguqule abe ama-Randi noma masenti.	**Izibonelo zezinkinga ezingenziwa kuleli themu:** • Ukubaluleka kwemali nokwenza amathothali isib - Bhala 525c ngamarandi namasenti - Ngezindlela ezingakhi ungenza iR400 usebenzisa amabhangi nothi, ube sewazi kanjani unazo zonke izimpendulo? - UPhilasande uno 50c kanye nezingcezu ezine zika - 20c. Ushokoledi ubiza u - 20c. Uzothola ushintshi wamalini? • UMandla ukhokhe u - R2, 50 ukukhwela itekisi eya esikoleni. - Kumbiza malini ukuya nokubuya esikoleni nsukuzonke? - Isitimela sibiza R6 ukuya nokubuya ithikithi. Yikuphi okushibhile i train noma taxi? • Ukuthenga nokuthengisa nezibalo - Ugogo kaNothando umnikeze u - R5, yimaphi amaswidi amathathu angahle awathenge? Ushokoledi ubiza u - R2, 70; ushingamu ubiza u - R1, 80; isi-tokswidi sibiza u - R1, 40; ithofi u - R1, 20. - UNdalwenhle uthenge izincwadi ezintathu, iyinyeibiza u - R80 iyodwa; malini ushuntshi azowuthola uma ekhokhe ng - R300? - Iphakethe elinoswidi oyi - 5 libiza u - 44c lilinye. Umnumzane uNtshangase ufuna uswidi ongama - 88. Mangaki amaphakethe okufanele awathenge? Malini azoyikhoka?	

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1.11 **Imali**			• Amabhasi amthathu ahamba emgwaqeni omkhulu okhokhelwayo obiza u - R40 ibhasi ngalinye. Malini ekhokhwa yilamabhasi esewonke? (kulindeleke ukuthi abafundi basebenzise ukuhlanganisa ngokuphindelela lapho inani lerandi liphakeme kakhulu)	
IZIBALO EZISESIMWENI ESIKHULULEKILE				
1.12 **Amasu (izindlela zokwenza noma namaqhinga)**	Sebenzisa amaqhinga alandelayo uma kwenziwa izibalo: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo izinombolo • Umugqa wezinombolo • Osondezela eshumini	Sebenzisa amaqhinga alandelayo uma kwenziwa izibalo: • Ukwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo izinombolo • Umugqa wezinombolo • Osondezela eshumini	Abafundi balindeleke ukuba basebenzise lamaqhinga alandelayo uma benza izibalo esimweni esikhululekile: • Uwakha nokuhlakaza izinombolo • Ukuphinda kabili nokuhlukanisa izinombolo ngokulinganayo • Umugqa wezinombolo • Ukusondezela eshumini Vumela abafundi ukukhetha amaqhinga abakwazi kangcono ukusebenza ngawo, kodwa-ke, uma abafundi besebenzisa amaqhinga angasebenzi kahle badinga ukulawulwa ukuthi basebenzise amaqhinga angasebenza kangcono. Bheka amanothi kathemu 1 kuloku • Ukwakha nokuhlakaza; • Ukuphinda nokuhlukanisa kabili ngokulandelayo; kanye • Umugqa wezinombolo. **Ukusondezela eshumini** Bheka incazelo ekuxazululeni izinkinga engxenyeni yesi-2.	

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1.13 **Ukuhlanganisa nokususa**	• Ukubala ufike 999 • Susa kusukela 999 • Sebenzisa izimpawu ezifanelekile (+, –, =, ☐) • Sebenzisa amabhondi ezinombolo ufike ema-30	• Hlanganisa ufinyelele ema- 400 • Susa kusukela ema-400 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Sebenzisa amabhondi ezinombolo ufike ema-30	**Yini eyehlukile kuthemu 2** Kulethemu abafundi babala ngezinombolo ezakhiwe amadijithi amathathu okoku-qala. Ukuze babale ngezinombolo ezinamadijithi amathathu ngokuzethemba, kufanele bebe sebekwazi uku: • Funda nokubhala izimpawu zezinombolo kufike ema-400; • Hlela nokuqhananisa izinombolo kufinyelele ema-400; • Bala ngamaqoqo kufike ema-400; noku • Bala ngezikhawu zoku-2,3,4,5,10,50,ne-100 kufike ema-400 Ngalethemu abafundi bazoqhubeka nokuhlakaza izinomboloukuze bawazi uku-bala. Ukwakha nokuhlakaza izinombolo kuhlala kuyiqhinga elibalulekile abafundi abangalisebenzisa ngalethemu. **Izindlela ezingasebenza ukubala ngokuhlanganisa nokususa.** • Ukuhlakaza inombolo ibe izingxenyana ezincane ukwenza ukubala kube lula. Amaqhinga amaningi asetshenziswa abafundi ukubala afaka ukuhlakaza izinom-bolo. Bayaqhubeka nokwenze njalo nangezinombolo ezingamadijithi amathathu. • Ukuhlanganisa ngendlela yokuhlakaza inombolo eyodwa Ukuhlanganisa amadijithi amathathu namadijithi amabili Isibonelo: 324 + 82 = ☐ 324 + 82 = (300 + 20 + 4) + (80 + 2) = 300 + (20 + 80)+ (4 + 2) = (300 + 100) + 6 = 400 + 6 = 406	

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1.13 **Ukuhlanganisa nokususa**			Isibonelo: Ukuhlanganisa amadijithi amathathu namadijithi amathathu Hlakaza zombili izinombolo 323 + 136 = □ 323 + 136 =(300 + 20 + 3) + (100 + 30 + 6) = (300 + 100) + (20 + 30) + (3 + 6) = 400 + 50 + 9 = 459 Ukuhlanganisa (ngokuhlakaza izinombolo ezizohlanganiswa) Abafundi bazohlakaza inombolo abangayikhona bona. Loku kusho ukuthi bengakwenza ngezindlela ezehlukene. Isibonelo: 324 + 82 = □ 324 + (40 + 40 + 2) 324 + 40→ 364 + 40→ 404 + 2 = 406 ukuhlanganisa izinombolo ezinamadigiti amathathu nezinye futhi ezinamadigiti amathathu 323 + 136 = □ 323 + 136 = 323 + (100 + 30 + 6) = (323 + 100) + 30 + 6 = (423 + 30) + 6 = 453 + 6 = 459 Ukubala kuqhutshekwe ngama 40 ukusukela kuma-324 kungenziwa ngokubala ngama-10. • Ukususa • Ukuhlakaza zombili izinombolo	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.13 **Ukuhlanganisa nokususa**			Kususwa amadijithi amabili kumadijithi amathathu. Isibonelo: 389 – 137 = □ 389 – 137 = (300 + 80 + 9) – (100 + 30 + 7) = (300 – 100) + (80 – 30) + (9 – 7) = 200 + 50 + 2 = 252 Ukususa ngokuhlaza inombolo eyodwa Isibonelo: 389- 137 = □ 389 – (100 + 30 + 7) 389- 100 → 289- 30 → 259- 7 = 252 • Ukususa ngokuhlakaza inombolo eyodwar Isibonelo: 389- 137 = □ 389 – (100 + 30 + 7) 389- 100 → 289- 30 → 259- 7 = 252 • Ukusebenzisa ukuhlukanisa kabili ngokulinganayo ngokuhlakaza inombolo Isibonelo: 225 + 16 = 225 + 8 +8 = (225 + 8) + 8 = 233 + 8 = 241 • Bala uye phambili ubuye uye emumva 305 + 298 = □ Bala uqhubeke ngakunye usukela ema-298 kuyiqhinga elisebenzayo ngoba izinombolo ziyesondelana.	

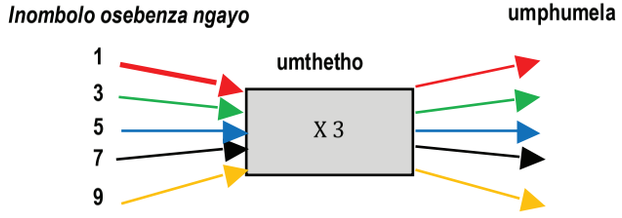
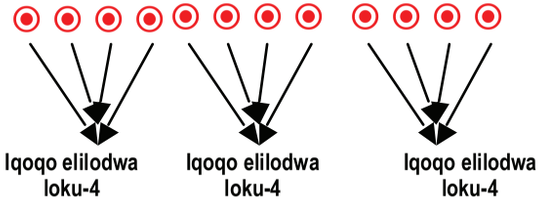
IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.13 **Ukuhlanganisa nokususa**			• Khomba eduze kweziphinda kabili Isibonelo: 145 + 146 = 191kuchaza ukuphindeka kabili145 kuhlangana noku- 1 noma ku-phinde kabili i-146 kususe oku- 1. 145 + 145 + 1 (100 + 40 + 5) + (100 + 40 + 5) + 1 (100 + 100) + (40 + 40) + (5 + 5 + 1) 200 + 80 + 11 280 + 11 280 + 10 + 1 290 + 1 291 • Shintsha inombolo ibe ngephinda kashumi bese ususa noma uhlanganise imivo Bala ukhuphuke noma wehle ukusondezela e-10 eliseduze Isibonelo: 288 + 11 288 + 10 = 298 298 – 1 = 297 Isibonelo: 188 + 19 188 + 20 = 208 208 – 1 = 207	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.13 **Ukuhlanganisa nokususa**			**Ukuthuthukisa amakhono ngokwenza ukuhlanganisa nokususa.** Abafundi badinga ukusebenzisa amakhono ukwenza izinhlobo ezithile zezibalo zokuhlanganisa nokususa. • Ukwenza ambhodi afika kuma-30 • Hlanganisa uphinde ususe ngokuphinda ka- 10 Abafundi kuzofanele bathole amathuba okwenza lezinhlobo ezilandelayo zezibalo ngezinombolo ezifinyelela ema- 400: Hlanganisa noma ususe ubala ngama-10 okuhamba ngakubili kweqe e-100 40 + 70 70 + 80 120 - 30 150 - 60 Hlanganisa noma ususe i-10 ezinombolweni ezingamadijithi amabili noma amathathu, ezifaka ukweqa ema- 100. Isibonelo: 65 + 10 124 + 10 326 - 10 358 - 10 Hlanganisa ususe inombolo enedijithi eyodwa kwenamadijithi amabili ngaphandle kokweqa amashumi. Isibonelo: 234 +5 475 + □ = 479 768 - 4	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.13 **Ukuhlanganisa nokususa**			Hlanganisa uphinde ususe inombolo enedijithi eyodwa kwephinda ngama- 100 Isibonelo: 200 + 4 300 + 3 300 - 6 400 - 5 Qala ukuhlanganisa uphinde ususe okuphinda ka- 100 okuhamba ngakubili. 100 + 100 100 + 200 Abafundi kufanele banikezwe amathuba okwenza amaphethini ngokuhlanganisa nokususa. Uma ngazi ukuthi 1+ 1 = 2 Okusho ukuthi yini: 10 + 10 100 + 100 **Ukubheka imphumela yokubala** Ukubheka ukuthembeka kwesixazululo Abafundi kumele baqeqesheke ekubhekeni ukuthembeka kwezixazululo. Enye indlela yokwenza loku ukuqagela izimpendulo zabo ngaphambi kokubala. Uma kuhlanganiswa izinombolo ezimbili ezisondele kwenye isib. 145 nama 146,abafundi bangasebenzisa ukuphinda kabili inombolo kube indlela yokuqagela izimpendulo zabo. **Ukuhlola izimpendulo** Abafundi kufanele bazi ukuthi banga: • Hlola ukuhlanganisa ngokususa. Isibonelo: uma ama- 236 + 18 = 254;bese ama- 254 - 18 = 236;noku • Hlola izibalo zokususa ngokuhlanganisa. Isibonelo, ama- 384 - 48 = 336, bese ama- 336 + 48 = 384. Ukusebenzisa uphawu olusebenza ngokuphikisana nolunye ukuhlola izimpendulo esinye isizathu sokufundisa ukuhlanganisa nokususa kanyekanye	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.14 **Ukuhlanganisa ngokuphindelela kuholela ezibalweni zokuphindaphinda**	• Phindaphinda izinombolo 1 kuya 10 ngo 2,3,4,5,10 ukuze kufike 99 • Sebenzisa izimpawu ezifanele (x, =, ☐)	• Phindaphinda 2,4,5,10,3,kuye esambeni sama-50 • Sebenzisa izimpawu ezifanele (x, =, ☐)	Kuleli themu abafundi bozoqhubeka noku: • Basebenzise babuye baqonde ulimi ngokuphindaphinda; • Bethula ukuphindaphinda njengononina. Sebenzisa izimpawu ezifanele ukuchaza imisho; • Qonda loku ngokuphindelela okubhaliwe lokhu okungethulwa ngezimpawu zokuphindaphinda • Zilolonge uphinde uqonde ukthi ukuphindaphinda kungenziwa nomi ikanjani (ukusebenzisa izinombolo ngokuphambanisa izikhundla zazo); • Sebenzisa umugqa wezinomboloukubonisa ukuphindaphinda ubale uphinde uchaze ngokuzethula (ukugxuma kukuveza kanjani ukuhlanganisa ngokuphindelela). Abafundi bangaqhubeka nokusebenza njengononina bebhala behlanganisa kanye nokuphinda izinombolo ngemisho Isibonelo: Bhala izibonelo ezimbili zokuhlanganisa, nokubili ukuphinda phinda bhala lezinombolo ngemisho ibe ngononina.  Imifanekiso engasetshenziswa ukuphindaphinda kungandiswa. Ithebula lokuphindaphinda lingethulwa.	

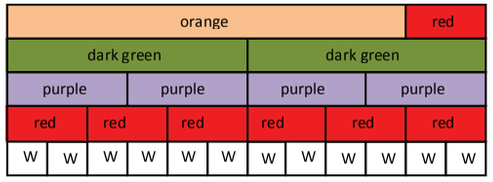
IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.14 **Ukuhlanganisa ngokuphindelela kuholela ezibalweni zokuphindaphinda**			**Isibonelo:** × | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 1 2 3 4 5 Okusho kwama thebula ngokumemeza kungenziwa. Abafundi akufanele bazi amathebula eBangeni lesithathu 3. Ukugxila olimini, oluvumela izibalo ngekhanda ezivumela amaqembu. Isibonelo: • Okubili okudodwa kwenza okubili • Okubili okubili kwenza okune • Okubili okuthathu kwenza okuyisithupha • Okubili okune kwenza okuyisishiyagalombili • Ababili okuhlanu kwenza okuyishumi • Okubili okuyisithupha kwenza okuyishuminambili • Okubili okuyisikhombisa kwenza okuyishuminane • Okubili okuyisishiyagalombili kwenza okuyishuminesithupha • Okubili okuyisishigalolunye kwenza okuyishumi nesishiyagalombili • Okubili okuyishumi kwenza okungamashumi amabili	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.14 **Ukuhlanganisa ngokuphindelela kuholela ezibal-weni zokuphin-daphinda**			Ukusho lokhu ngalendlela kwelekelela ukuthuthuka kolwazi ekuhlanganiseni okuphindelelayo. Abafundi bangaphinde basebenzise umdwebo wokubala ngokuqhubeka isibonelo  	
1.15 **ukuhlukanisa**	• Hlukanisa izinombolo ufike ema -99 ngoku-1, 2, 3, 4, 5, 10 • Sebenzisa izimpawu ezifanele (÷, =, ☐)	• Hlukanisa izinombolo ufike ema -50 ngoku-2, 4, 5, 10 • Sebenzisa izimpawu ezifanele (÷, =, ☐)	Kuleli themu lesibili abafundi nokuzilolonga baphinde bahlanganise besebenzisa umpawu lokwehlukanisa. Kufanele bazi ukuthi izimpawu zokuhlakanisa ngezinombolo emshweni kungachaza isimo esiphalene nokubumba amaqembu nokwehlukanisa. **Yini umahluko kusukela kuthemu 1?** Kuleli themu abafundi kufanele bakwazi ukubhala bechaza izimpawu zokwehlukanisa emshweni. Abafundi kufanele bakwazi ukulekhoda lokhu okulandelayo: 30 ÷ 6 = ☐ nokuthi 30 ÷ 5 = ☐ Abafundi bafanele futhi bakwazi ukuthuthukisa izindlela ezahlukene zokwehlukanisa uma ubala. **Izibonelo: ukususa ngokuphindelela** Ukuze sikwazi ukubala 12 ÷ 4 = ☐ abafundi bafanele bakwazi izithombe zabo ukuma kwamaqembu.  	

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1.15 **ukuhlukanisa**			Hlukanisa iqembu elilodwa 4 futhi iqembu lesibili 4 neqembu lesithathu 4 12- 4 → 8 – 4 → 4- 4 = 0 Njenge qembu elilodwa lika 4 libekwa nganhlanye ngakhoke abafundi bangasusa 4 okokuqala bese bebala ukuthi kusele okungakanani. Bazoqhubeka bekwenza lokhu kuze kufike lapho baze basuse konke okususwayo. Okugcizelelwayo eBangeni 3 kufanele bazibumbe ngokwamaqembu kunokuhlukana. Ukwenza okuphindaphinda ukususa ngaleli nani linwebeke ngokufaneleyo. Abafundi bazokuba nokwahlukano okunikezelwe, ngokuhlukaniswa ngemisho ukuze kuvunyelwe ukususa ngokuphindelela. Ukwenza ukususa ngokuphindelela 96 ÷ 3 Akusikho okushaye esikhonkosini inqobo nje wukuthi inani linwebeke laya phezulu Okokuqala kungabanzima ukuthi abafundi babone yiyiphi inombolo emshweni, futhi yiyiphi inombolo enwetshiwe nokuthi emishweni kungenziwa ukususa okuphindiwe. (yiziphi izinhla zezinombolo) ezilungele ukwenza ukususa ngokuphindelela?	
1.16 **Izibalo zekhanda.**	**Ulwazi lwezinombolo: uhla 999** • Hlela izinombolo ezikhethiwe zeqoqo elinikeziwe. • Qhathanisa izinombolo kufinyelele ema-999 bese usho ukuthi ikuphi okunga phezulu noma okungaphansi ngoku-1, 2,3,4,5, kanye ne-10	**Ulwazi lwezinombolo: uhla 500** • Hlela izinombolo ezikhethiwe zeqoqo elinikeziwe. Zohla 500. • Qhathanisa izinombolo kufinyelele ema-500 bese usho ukuthi ikuphi okunga phezulu noma okungaphansi ngoku-1, 2,3,4,5, kanye ne-10	**Ulwazi lwezinombolo** Izinhlobo zemibuzo engabuzwa: **Amagama nezimpawu zezinombolo** Phakamisa ikhadi noma ubhale igama lenombolo. Khetha umfundi ukuba abhale uphawu lwenombolo. **Kuningana ukunokunye nokuncanyana ukunokunye** Yini?: • Okuncane ngoku-1 kokungama-500 • okuningi ngoku-1 kokungama-499 • okuningi ngoku-2 kokungama-502 • Okuncane ngoku-2 kokungama-405 • okuningi ngoku-3 kokungama-477 • Okuncane ngoku-3 kokungama-251	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.16 **Izibalo zekhanda.**	**Khumbula ngokushesha:** • Okuyikho ngokuhlanganisa nokususa kufinyelela ema-20 • Susa noma uhla nganise okuphinda ka-10 kusukela koku-0 kuya e-100 • Okuyikho ngokuphindaphinda nokuhlukanisa u: • Ithebula lokuphinda kabili kufinyelele koku-2x10 • Ithebula lokuphinda kashumi kufinyelel koku 10x10 **Amaqhinga okubala** sebenzisa lamaqhinga okubala alandelayo: • Beka inombolo enkulu kuqala ukuze ubala uqhubeke noma uye emumva	**Khumbula ngokushesha:** • Okuyikho ngokuhlanganisa nokususa kufinyelela ema-20 • Susa noma uhla nganise okuphinda ka-10 kusukela koku-0 kuya e-100 **Amaqhinga okubala ngekhanda** sebenzisa lamaqhinga okubala alandelayo: • Beka inombolo enkulu kuqala ukuze ubala uqhubeke noma uye emumva • Umuqga wezinombolo • Ukuphinda kabili ngokulinganayo nokuhlukanisa kabili ngokulinganayo • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa	• Okuncane ngoku-4 kokungama-185 • okuningi ngoku-10 kokungama-490 • Okuncane ngoku-10 kokungama-660 Iluphi uhlamvu lwesi-5 ezinhlamvini zama-alfabhethi? Iyiphi inyanga yesi-9 onyakeni? **Ukuhlela nokuqhathanisa** Ikuphi okuningi: 621 noma 671? Nginike inombolo ephakathi koku-154 noku-159. Okuyikho ngokuhlanganisa noma ukususa: Bheka amanothi eThemu yoku-1. Hlanganisa noma ususe okuphindwe ka-10 kokuyi-100 Yisho ukuthi amagxathu okumele athathwe emugqeni wezinombolo kuqalqwq kokungama-30 kuya kokuyi-100 noma kuqala kokuyi-100 kuya kokungama-50. Thola amakhadi ahambisana ngamabili ukwakha i-100. Beka izinombolo emabhokisini ukwakha i-100. ☐ + 70 = 100 20 + ☐ = 100 100 – ☐ = 90 100 – 40 = ☐ **Amaqhinga okubala:** Bheka amanothi kaThemu 1	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.16 **Izibalo zekhanda.**	• Umuqga wezinombolo • Ukuphinda kabili ngokulinganayo nokuhlukanisa kabili ngokulinganayo • Ukwakha nokuhlakaza izinombolo • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa • Sebenzisa ubudlelwano phakathi kokuphindaphinda nokuhlukanisa			
1.17 **Amaqhezu ajwayelekile**	• sebenzisa uphinde usho amagama amaqhezu ezimweni ezijwayelekile okufaka uhhafu, ikota, okwesishiyagalombili, okwesithathu, okwesithupha, okwesihlanu. • Bona amaqhezu emdwebeni • Qala ukubona ukuthi ohhafu aba-2 noma okwesithathu oku-3 kwenza into eyodwa ephelele nokuthi uhhafu o-1 kanye namakota ama-2 kuyalingana		ngaleThemu abafundi baqhubeka noku: • Funda amagama ezingxenye zamaqhezu; • Sebenzisa amagama ezimweni ezehlukene; • Bona ingxenye yeqhezu; • Qala ukuqonda ubudlelwano bobungako bamaqhezu; • Thola amaqhezu ezinto; bese • Funda ngokufana/ngokuhambelana kwamaqhezu; Ngalethemu abafundi bazoqhathanisa amaqhezu. • Ukusebenzisa imicu yamaqhezu noma izinti zikaCuisenaire.	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
	• Bhala amaqhezu anjengo hhafu o-1 noku-2		Isibonelo: Lemifanekiso ingasebenza kangcono ekufundiseni abafundi ukthi basho amagama amaqhezu nokuwaqhathanisa. Isibonelo:   Veza ukuqonda amaqhezu ukukhombisa oku-1 okuphelele, ohhafu, okokuthathu, amakota, okokuhlanu, okwesithupha, okwesishiyagalombili, okweshumi. Kuhle kakhulu nukthi abafundi ngezinto eziphathekayo futhi bangaqhathanisi amaqhezu besebenzisa udonga lwamaqhezu asezithombeni. Abafundi badinga ukuyithinta into ngo kuyilinganisa nenye. • Bangaki ohhafu abalingana nokuphelele? • Mangaki amakota alingana nokuphelel? • Mangaki amakota akha uhhafu owodwa? Yenza abafundi babeke imicu yamaqhezu eduze kweminye ukuthola izimpendulo. • Kungaki okokuthathu okulingana nokuphelele? • Kungaki okokwiyisithupha okulingana nokokuthathu? • Kungaki okokwiyisithupha okulingana nokuwuhhafu? • Yikuphi okukhulu, okokuthathu oku-1 noma oku-1 okuhhafu? • Yikuphi okukhulu oku- 2 kokuthathu noma amakota ama- 3 ?	

ITHEMU YESI- 2 YEBANGA LESI-3 2. AMAPHETHINI, UBUDLELWANE NE ALJEBHRA				
IZIHLOKO	**UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 2**	**AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**Isikhathi esinqunyiwe** (esifundweni se hora eli -1 nemizuzu engama-24)
2.1 **Amaphethini okusazibalo-md-webo**	**Ukubukela, ukuqhubeka nokuchaza** Ukubukela, ukuqhubeka nokuchaza ngamagama • amaphethini alula akhiwe ngezinto eziphathekayo • amaphethini alula akhiwe ngukudweba imigqa, izimo noma izinto **Ukwakha amaphethini angawakho** Ukwakha amaphethini angawakho asejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo nezinto **Amaphethini asizungezile** Ukukhomba,ukuchaza ngamagama nokubukela amaphethini asejiyometri • ngokwemvelo • empilweni yesimanje yansukuzonke • emasikweni ethu ayigugu	**Ukubukela ukuqhubeka nokuchaza ngamagama** Ukubukela, uku-qhubekanamaphethini alula • amaphethini alula ngezinto eziphathek-ayo • amaphethini alula akhiwe ngemidwebo **Uhla lwamaphethini:** Amaphethini alula asez-imweni noma emaqoq-weni aphindwe ngendlela efana nse. Amaphethi lapho khona inombolo noma ubun-gako bezinto esiga-beni ngasinye eshintsha ngengendlela engaqage-leka, okungukuthi amaphethini akhula ngendlela elindelekile. **Ukwakaha amaphethini angawakho** Ukwakha amaphethini angawakho asejiyometri • Ngezinto eziphathek-ayo • Ngokudweba imigqa, izimo nezinto	Qhubeka nokunikeza abafundi uhla olufanayo lamaphethini nolukaThemu 1, kodwa ufake zonke izimo nezinto ezintsha kumaphethini njengoba kwenziwe eZimweni neSikhundla Bheka amanothi amaphethini kaThemu 1 noma nmanothi eSikhundla neZimo eThemu yesi-2. Vumela abafundi bakopishe kuqala, bese beyaqhubeka bagcine ngokuwachaza amaphethini. Njengamanje bafanele ukuwachaza amaphethini ngaphandle kosizo lwemibuzo ebaholayo. Qhubeka nokugxila ekuthuthukiseni ulimi abaludingayo ukuchaza amaphethini. Amanye amaphethini enziwe esukela ohlotsheni olulodwa lwesimo, kodwa isibonelo ngasinye sesimo siyenyuka noma sinciphe isib. Amanye amaphethini enziwe ngamaqoqo lapho khona izimo zezinto ezifanayo zenzeka, kodwa inombolo yesimo kanye neyento ngayinye ikhula noma incipha ngendlela ejwayelekile. Isib. Ukukopisha amaphethini kusiza abafundi ukubona ukulandelana ukuthi amaphethini akheke kanjani. Ukuqhubeka namaphethini kusiza abafundi ukubheka ukuthi bezwisise kahle ukulandelana kwephethini. Ukuchaza iphethini ukusiza abafundi ukuthuthukisa ulimi namakhono okukhuluma. Iyakusiza ukubona ukuthi abafundi bayihumusha kanjani iphethini. Kuvame ukuba lula kubafundi ukukhuluma ngamaphethini emva kokuba bewenzile. Njengamanje abafundi bayakwazi ukuchaza amaphethini ngaphandle kosizo lokulekelelwa imibuzo. Qhubeka nokugxila ekuthuthukiseni ulimi abulidingayo ukuchaza amaphethini.	1 isifundo

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 2	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	**Isikhathi esinqunyiwe** (esifundweni se hora eli -1 nemizuzu engama-24)
2.2 **Amaphethini ezinombolo**	**Ukubukela, ukuqhubeka nokuchaza** Ukubukela,ukuqhubeka nokuchaza izinombolo ezilula ngokulandelana kufinyelele e- 1000 **Ukwakaha amaphethini angawakho** Ukwakha amaphethini angawakho ezinombolo.	**Ukubukela, ukuqhubeka nokuchaza** Ukubukela,ukuqhubeka nokuchaza izinombolo ezilula ngokulandelana kufinyelele e- 150 Ukulandelanisa makukhombise ukubala kuyiwe phambili nasemuva ngo: • Ngoku-1 kusukela kunoma iyiphi inombolo ephakathi kwe 0 nama 500 • Ngokuyi-10 kusukela kunoma iyiphi inombolo kubalwa ngokuyi 10 phakathi kwe 0 nnama 500 • Ngoku 5 kusukela kunoma iyiphi inombolo kubalwa ngoku 5 phakathi kwe 0 ne 500 • Ngoku 2 kusukela kunoma iyiphi inombolo kubalwa ngaku 2 phakathi kwe 0 ne 500	Bheka amanothi eThemu yoku-1, Qhubeka nohla lwezinombolo nokubala ngokulandelanisa ngendlela elandelayo: • Ngoku-1 kusukela kunoma iyiphi inombolo ephakathi kwe 0 nama 500 • Ngokuyi-10 kusukela kunoma iyiphi inombolo kubalwa ngokuyi 10 phakathi kwe 0 nnama 500 • Ngoku 5 kusukela kunoma iyiphi inombolo kubalwa ngoku 5 phakathi kwe 0 ne 500 • Ngoku 2 kusukela kunoma iyiphi inombolo kubalwa ngaku 2 phakathi kwe 0 ne 500 • Ngokuyi 100 kusukela kunoma iyiphi inombolo kubalwa ngama-100 kufinyelele okungenani e-1000 • Ngokungama 50 kusukela kunoma iyiphi inombolo kubalwa ngama-50 kufinyelele okungenani e-1000 • Ngoku 3 kusukela kunoma iyiphi inombolo kubalwa ngaku 3 phakathi kwe 0 ne 500 • Ngoku 4 kusukela kunoma iyiphi inombolo kubalwa ngaku 4 phakathi kwe 0 ne 500 Sebenzisa izinto, izithombe, amathebula nemidwebo yokuqhubeka nezinombolo ukulekelela abafundi ekushintsheni ekubaleni ngokweqa nokulandelanisa ukuya ekuphindaphindeni ngako-10, 5, 2, 4. Siza abafundi ukuba basebenzise amaphetrhini abawaziyo njengesisekelo sokuzilungiselela nokufunda amanye amaphethini isib. • Ukulandelana ngaku-2 ukwendlalela ukulandelana ngaku-4; kanye • Ukulandelana ngaku-5 ukwendlalela ukulandelana ngama-50.	3 izifundo

IZIHLOKO	UKUQONDA OKUFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONGA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 2	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	**Isikhathi esinqunyiwe** (esifundweni se hora eli -1 nemizuzu engama-24)
		• Ngoku 3 kusukela kunoma iyiphi inombolo kubalwa ngaku 3 phakathi kwe 0 ne 500 • Ngoku 4 kusukela kunoma iyiphi inombolo kubalwa ngaku 4 phakathi kwe 0 ne 500 Ngokungama 50, 100 okungenani kokuyi 1000		

ITHEMU YESI-2 YEBANGA LESI- 3 3. INDAWO NESIMO (IJIYOMETRI)				
IZIHLOKO	**IMIQONDO NAMAKHONO** **ALINDELEKILE NGASEKUPHELENI KONYAKA**	**IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 2**	**AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** (ngokwesifundo esingangehora nemizuzu engu 24)
3.1 **Isikhundla, inkomba nokubukeka kwento**	**Isikhundla nokubukeka kwento** • Qondanisa ukubukeka kwento okwahlukene kwento efanayo yansu-kuzonke • Yisho into yansu-kuzonke nendlela ebukeka ngayo uma ikhonjiswa ngendlela engajwayelekile • Funda, uhumushe futhi udwebe imibhalomd-webo engahlelekile, noma ukukubukeka kwezintonto eziqo-qelwe ndawonye uma zibukwa ngaphezulu • Thola izinto emibhal-wenimdwebo **Isikhundla nezinkomba** • Landela izinkomba ukuhamba uzungeze ikilasi, nesikole • Nikiza izinkomba uku-hamba kuzungezwa ikilasi, nesikole • Landela izinkomba ukusuka endaweni uya kwenye indawo es-emubhalwenimidwebo engahlelekile	**Isikhundla nokubukeka kwento** • Qondanisa ukubukeka kwento okwahlukene kwento efanayo yansukuzonke • Yisho into yansukuzonke nendlela ebukeka ngayo uma ikhonjiswa ngendlela engajwayelekile **Isikhundla nezinkomba** • Landela izinkomba ukuhamba uzungeze ikilasi, nesikole • Nikiza izinkomba ukuhamba kuzungezwa ikilasi, nesikole	**Yini eyahlukile ebangeni lesi 2?** • Akukho kugxila okubaluliwe kokuthuthukisa ulimi lwesikhundla, njengoba lokhu kwenziwa emabangeni 1 nele-2. • Landela izinkomba ezichaza kabanzi okungukuthi. Ukuzungeza isikole, ukunokuzungeza ikilasi kuphela • Nika izinkomba zezindawo ezisekilasini nasesikoleni • Imibhalomdwebo nokubukeka kweqoqo lezinto zibukwa ngaphezulu. Ilapho kugxilwa khona ngethemu yesi-3 **Isikhundla nezinkomba** • Landela izinkomba lokhu kungenziwa ngemisebenzi engenziwa abafundi ngokunyakaza belandela imiyalelo. eBangeni lesi- 3 abafundi banganikezwa imiyalelo ngomlomo noma babhalelwe - Ukunyakaza bezungeza ikilasi isib. “ woza phambili nekilasi”; “ima eduze kwesitulo sakho”; “ gxuma weqe umgqomo wezibi”; kanye - Nokunyakaza bezungeza ekilasini noma esikoleli okusho ukuthi noma izinkomba ezinde ngokuthe xaxa, “ Hamba uphumele phandle jikela kwesobunxele, qhubeka wehle nephasiji, nqamula inkundla, ukuphi manje.” • Nikeza izinkomba Abanye abafundi bangakuthola kulula ukunikeza izinkomba ngokwenza abakushoyo okumayelana nezinkomba ozinikezile. Kwabanye abafundi kuyasiza ukubanika inkombandlela yezinto ezigqamile zezinkomba. - Yisho noma uyaqhubeka noma ubheke enkombeni noma jika - Yisho noma uyaqonda, jikela ngakwesobunxele noma jikela ngakwesokudla. - Nikeza izimpawu lapho kufanele ujike khona isib. uma ufika ehhovisi likamabhalane jikela kwesobunxele bese	2 izifundo

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 2	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
3.1 **Isikhundla, inkomba nokubukeka kwento**			- Ubona ukuthi kusafanele uhambe kangakanani. Kunezindlela ezehlukene zokusho ukuthi kusamele uhambe kangakanani, isib. o Hamba izinyathelo 30 noma 10 amamitha; o Hamba udlule amakilasi ama- 3,noma hamba uze udlule ikilasi lika mnu Radebe noma o Hamba okungaba umzuzu o- 1. **Isikhundla nokubukeka kwento** Ebangeni lesi- 3 abafundi kumele banikezwe umisebenzi lapho bengakwazi uku-qondanisa ukubukeka okwahlukene (ukubuka kuqhamuka ngaphezulu, ukubuka kuqhamuka emaceleleni, ukubuka kuqhamuka ngaphambili) kweezito ezihlukahl-ukane zansukuzonke. Lokhu kuzosiza abafundi ukuba bakwazi ukuhumusha imidwebo yezinto ezise-jiyometri eyenziwe ngezindlela ezahlukene zokubuka. Abafundi kumele banikezwe imisebenzi lapho bengakwazi ukubona into ethile esithombeni esidwetshiwe, isithombe esithathwe ngendlela engajwayelekile, isib. Ukubukeka kwengaphezulu lenkomo, ukubukeka kwengaphambili lesixubho.	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 2	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
3.2 **Izinto ezinhlang-othintathu** **3-D**	**Uhla lwezinto** Bona usho izinto ezi 3-D ekilasini nasezithombeni. • izimo eziyindilinga (izimbulunga) • izimo ezingamabhokisi (amaphrizimu) • amasilinda • amaphiramidi • amakhoni **Izimpawu zezinto** chaza, uhlele bese uqhathanisa izinto ezi-3-D ngokwe: • izimo ezi 2-D, ezakha ubuso bezinto ezi 3-D • ingaphezulu lezinto eliyisicaba noma ligobile	**Uhla lwezinto** Bona usho izinto ezi 3-D ekilasini nasezithombeni. • izimo eziyindilinga (izimbulunga) • izimo ezingamabhokisi (amaphrizimu) • amasilinda **Izimpawu zezinto** chaza, uhlele bese uqhathanisa izinto ezi-3-D ngokwe: • izimo ezi 2-D, ezakha ubuso bezinto ezi 3-D	**Yini eyahlukile ebangeni lesi- 2?** • Abafundi abasabheki ukuthi into ingagingqika noma ingashibilika, babheka ukuthi indawo engaphezulu iyisicaba noma igobile. • Lapho izinto zinengaphezulu eliyisicaba, abafundi babheka ukuthi lelongaphezulu liyisikwele, lingunxantathu, lingunxantathu noma liyindilonga. • Amakhoni namaphiramidi ayethulwa (lokhu kungagxilwa kukho ngeThemu yesi 3 neye 4). **Okunconywe ukuba kugxilwe kuko ngoThemu 2** Abafundi basebenza ngezinto ezifanayo nalezo ababezisebenzisa eBangeni lesi-2 • Amabhola nezinto ezinezimo zamabhola; • Amasilinda nezinto ezinezimo zamasilinda; kanye • Izinhlobonhlobo zamabhokisi nezinye izinto ezinzimo zamaphrizimu angonxande namakhiyubhi. Abafundi bangagxila ezintweni ezintsha (amaphiramidi namakhoni) ngeThemu yesi 3 neye 4 **Ukubona nokusho amabhola (izimbulunga) namabhokisi (amaphrizimu) kanye namasilinda** • Abafundi baqhubeka nokusho, ukuhlela nokwenza amaqoqo ezinto. Abafundi kumele banikezwe uhla lwezinto abazosebenza ngazo: • Izimo ezinjengendilinga, isib. amabhola anobungako obungalingani, izimabula, amawolintshinjll. • Izimo ezinjengamaprisimu,isib. amabhuloki, izitini, amabhokisi anobungako okwahlukene isib. amabhokisi kamentshisi, amabhokisi amasiriyeli, amabhokisi etiye, amabhokisi omuthi wokuxubha; kanye • Izimo ezinjengamasilinda, okufaka omabili amasilinda amade nazacile, isib. amaphayiphi awumbhobho, nemibhobho yephepha lasendlini yangasese ezakhiwe ngokhadibhodi ezimfishane, kanye namasilinda abanzi isib. Ithini likapholishi wezicathulo, amathiniesinefu njl.	3 izifundo

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 2	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
3.2 **Izinto ezinhlang-othintathu** **3-D**	**Imisebenzi okugxilwa kuyo** • buka wakhe usebenzisa izinto ezi 3-D ozinikeziwe usebenzisa izinto eziphathekayo usebenzisa izimo ezi 2-D ezisikiwe ubumba, izinti zokuvungula,izinti zokumunca isiphuzo,nazinye izinto ezi3-D ezisejiyometri	**Imisebenzi okugxilwa kuyo** • buka wakhe usebenzisa izinto ezi 3-D ozinikeziwe usebenzisa izinto eziphathekayo usebenzisa izimo ezi 2-D ezisikiwe ubumba, izinti zokuvungula,izinti zokumunca isiphuzo,nazinye izinto ezi3-D ezisejiyometri **Uhla lwezimo** • izindilinga • onxantathu • izikwele • onxantathu **Izimpawu zezimo** Chaza, uhlele bese uqhathanisa izimo ezi 2-D ngokwe: • isimo • izinhlangothi eziqondile • izinhlangothi ezindilinga	Abafundi bangathola izinto ezibunjiwe ngengebhola (nokuyimbulunga) noma njengebhokisi, (iprisimu) noma okusandilinga noma uhlobo oluthile lwezinto ezibunjwe njengendilinga. Abafundi bangathola noma babonise izinto ezibunjwe njengamabhokisi (iprisimu) ekilasini isib.lelithini likatamatisi libunjwe njengembulunga. Ngesikhathi sokufunda ngokuzimela abafundi bangaqhubeka ngokweza amabhola besebenzisa izimbulunga, namabhokisi besebenzisa (amaprisimu) ngobumba noma ubumba yokudlala. **Ukugxila ezimpawini zezinto ezingama 3-D: indawo ephezulu eyisicaba noma egobile.** • Ukwakha into eyi 3-D ehamba iyodwa Abafundi basebenzisa amabhokisi asikiwe abazikwele, noma onxande ukwenza ibhokisi.lokhu kugxila esmweni esiyisicaba sebhokisi. Abafundi bazobe sebebuka izimo eziyizicaba zeprisimu nesilinda bazichaze ukuthi ziyiyindinga, isikwele, unxande. eziyizimo eziyizicaba nezigobile Ukwakha ibhokisi kusiza abafundi ukuthi bagxile ezimweni eziyicaba zezinto. Abafundi bangabheka ukuthi zonke izimo ezisejiyometri zinezimo eziyizicaba kuphela. Ebangeni 1 no 2 abafundi bahlukanisa izinto ezinezimo ezisejiyometri kulezozinto ezigingqikayo nezishibilikayo. Lokhu kulekelela abafundi ukuba bagxile ekutheni izimo zezinto zizyizicaba noma zigobile noma ziyagingqika. Amanye amasilinda anzimo eziyizicaba, anye anezimo ezigobile. Lokhu kulungisela abafundi ukuba bagxile ezimweni zezinto eziyisicaba(izinto ezinga shibilika) noma ezigobile or curved (izinto ezingagingqika) Amasilinda amanye anezicaba amanye agobile **Umsebenzi obhalwayo** Noma umsebenzi omningi wokusebenza ngezinto ezingaman 3-D uyimisebenzi wezinto eziphathekayo, umsebenzi kufanele uhlanganiswe njengomsebenzi wokubhala. Kulelibanga kufanele kugxilwe ekubizeni izinto nasekukhulumeni ngezimo zezindawo. Abafundi abalindelekile ukubala noma ukwazi inombolo yesikwele, unxande, unxantathu, noma indawo eyindilinga izinto ezinazo. **Ulimi** Ikhono lolimi olubalulekile lokukhuluma ngezinto ezingama 3-D: Ingaphezulu lendawo, isicaba, okugobile, amabhokisi, amabhola, osilinda	

IZIHLOKO	IMIQONDO NAMAKHONO ALINDELEKILE NGASEKUPHELENI KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 2	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
3.3 **Izimo eziyi 2-D**	**Izinhlobo zezimo ezahlukene** • izindilinga • onxantathu • izikwele • onxande **Isimo samaphethini** Ukuchaza, ukuhlela, nokuqhathanisa ngokubheka • isimo • amacala aqondile • amacala ayimbulunga **Ukudweba izimo** • izindilinga • onxantathu • izikwele • onxande	Akukho ukugxila okuthile kwezimo ezi 2-D okunconyelwe uThemu 2.Noma kunjalo, abafundi bangahlanganisa lokhu osekufundiwe ngokubona nokubiza ama 2-D shapes kuthemu 2,ngokwenza umsebenzi obhalwayo ngesikhathi sokufunda ngokukhululeka.		
3.4 **Okufana nse nhlangothi zombili**	**Ukufana nse nhlangothi zombili** • Ukubona nokubhala umugqa ohlukanisa kablili kufane nse kuzimoezingu 2-D ezisazibalomidwebo nalezo ezingesizo izibalomidwebo • Ukubona nokubhala umugqa ohlukanisakablili kufane nse **Ngokugoqa iphepha nokubuyiswa kombiko**	**Ukufana nse nhlangothi zombili** Ukubona nokubhala umugqa ohlukanisakablili kufane nse **Ngokugoqa iphepha nokubuyiswa kombiko**	**Yini okusha ebangeni lesi 3?** Ukubona nokubhala umugqa ohlukanisakablili kufane nse Ngokugoqa iphepha nokubuyiswa kombiko Imisebenzi yokugoqwa kwamaphepha okukhululisa ukuqonda ukufananse nhlangothi zombili kufaka: • Imsebenzi lapho upende omanzi ubekwe ephepheni ngaphambi kokuba ligoqwe nemi • Sebenzi lapho iphepha lisikiwe noma lihleluliwe kulayini eligoqwe kulo. Lemisebenzi ingenziwa uma kwenziwa izifundozezizibalo noma zamakhono empilo Cela abafundi ukuba baqagele ukuthi kuzophuma ziphi izimo uma sebevula lamaphepha abawasikile. Lokhu kusiza ukulolonga indlela ababona ngayo izimo ezifana nse.	2 izifundo

ITHEMU YESI- 2 YEBANGA LESI-3 4. ISILINGANISO				
IZIHLOKO	**UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI ESINQUNYIW** (esifundweni sehora eli 1 nemizuzu engama 24)
4.1 **isikhathi**	**Ukusho isikhathi** • ukufunda izinsuku ekhalendeni • bheka izinsuku zokuzalwa, imigubho yezenkolo, amaholide,izigameko zomlando izehlakalo zekilasi ekhalendeni. • Ukusho isikhathi ngamahora ayi -12 - amahora - uhhafu/isigamu sehora - ikota yehora - imizuzu ewashini elinezinti nelinezinombolo nokunye okungamathuluzi angatshengisa isikhathi isib. Iselulafoni. **ukubala ubude besikhathi nokudlula kwaso** sebenzisa ikhalenda ubala nokuchaza ubude besikhathi ngezinsuku noma ngamasonto noma ngezinyanga ufake nalokhu	**Ukusho isikhathi** • ukufunda izinsuku ekhalendeni • bheka izinsuku zokuzalwa, imigubho yezenkolo, amaholide,izigameko zomlando izehlakalo zekilasi ekhalendeni. • Ukusho isikhathi ngamahora ayi -12 - amahora - uhhafu/isigamu sehora - ikota yehora - imizuzu ewashini elinezinti nelinezinombolo nokunye okungamathuluzi angatshengisa isikhathi isib. Iselulafoni. **ukubala ubude besikhathi nokudlula kwaso** sebenzisa ikhalenda ukubala nokuchaza ubude besikhathi bezinsuku noma bamasonto noma izinyanga kuhlangene	Abafundi bayaqhubeka nokwenza bekhuluma ngobude besikhathi nokulandelana kwaso. Ngeskhathi sokufundisa ikilasi lonke nokugxila emaqenjini,abafundi abaqhubeke bakhulume ngezinsuku zeviki,ngezinyanga zonyaka nosuku namhlanje, kanjalo nezinsuku ezdlule nezizayo.Abafundi baqhubeke ukubeka izigameko ezilandelayo ekhalendeni; • izinsuku zokuzalwa; • imigubho yezenkolo; • izigameko zomlando; • izehlakalo zesikole • amaholide. Qhubeka ucele abafundi bakhulume ngesikhathi, ngezikhawu ezejwayelekile nsukuzonke; • ngamahora namaminithi ewashini lezinombolo,noma • ngamahora,uhhafu wamahora, kanye nekota yamahora usebenzisa amawashi anezinti. Isibonelo; abafundi.bangacelwa ukuba bakhulume ngesikhathi uma isikole siqala,ngezikhathi sekhefu nasemakhaya noma beshintsha izifundo.Khetha izikhathi lapho iwashi litshengisa ihora noma uhhafu wehora noma ikota yehora. Kuyasiza ukuba newashi elikhulu lokubukisa ekilasini,yilapho abafundi bezokhomba khona isikhathi.Abafundi bangenza eyabo imifanekiso yamawashi Angacela abafundi batshengise izikhathi ezehlukene kuhlangene nokubala isib. Ngitshengise ihora le10. Ubani isikhathi ikota nohhafu ngaphambi kuka10? Ngesikhathi sokufunda ngokuzimela abafundi abaqhubeke bazijwayeze ukukhuluma ngesikhathi. • ngamahora nohhafu wehora,nekota yehora, ewashini elinezinti • ngamahora nangaminithi ewashini lezinombolo.	2 izifundo

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	• shintsha iznsuku namasonto • shintsha phakathi kwamasonto nezinyanga ukusebenzisa iwashi ubala ubude besikhathi ngamahora noma ngohhafu bamahora. **ukubala ubude besikhathi nokudlula kwaso** sebenzisa ikhalenda ubala nokuchaza ubude besikhathi ngezinsuku noma ngamamasonto noma ngezinyanga ufake nalokhu • shintsha iznsuku namasonto • shintsha phakathi kwamasonto nezinyanga ukusebenzisa iwashi ubala ubude besikhathi ngamahora /ngohhafu noma amakota	• ukusebenzisa iwashi ukubala ubude beskhathi ngamahora noma uhhafu wehora	Abafundi benza izibalo ngamaviki noma izinsuku uma benikwe ikhalenda noma ingxenye yekhalenda isib.ukuthola izinsuku, nokubala isikhathi nokubona umehluko phakathi kwazo	

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4.2 **ubude**	**Isilinganiso esingahlelekile** • ukuhlawumbisela ulinganise, uqhathanise, uhlele bese ubhala ubude usebenzisa isilinganiso esingalinganisiwe isib, isandla,amanyathelo, ubudebepensela, ikokubala.njll. • ukuchaza ubude bezinto ngokubala uqala ngokuqagela ukuthi bungakanani ubude bamayunithi angahleliwe • ukusebenzisa ulimi ukhuluma ngokuqhathanisa isib, kude xaxa, kufishane xaxa, kuphakeme xaxa, kubanzi xaxa njll.	**Isilinganiso esingahlelekile** • ukuhlawumbisela ulinganise, uqhathanise, uhlele bese ubhala ubude usebenzisa isilinganiso esingalinganisiwe isib, isandla,amanyathelo, ubude bepensela, ikokubala.njll. • ukuchaza ubude bezinto ngokubala uqala ngokuqagela ukuthi bungakanani ubude bamayunithi angahleliwe • ukusebenzisa ulimi ukhuluma ngokuqhathanisa isib, kude xaxa, kufishane xaxa, kuphakeme xaxa, kubanzi xaxa njll.	**Yini umahluko eBangeni 2?** eBangeni 2 abafundi ba- • Kugxiliswa ubude ngesilinganiso esingahlelekile nangamayunithi angenasilinganiso • Isilinganiso ngamamtha sasethuliwe kuThemu 2 eBangeni 3abafundi bangaqhubeka ukwenza isilinganiso esingahlelekile ngokusebenzisa amayunithi angenasilinganiso nokulinganisa ngamamitha. kuThemu 3 bazoqala balinganise ngamasentimitha besebenzisa irula. **Ukuqagela,isilinganiso, ukuqhathanisa, nokubhala ubude nobubanzi usebenzisa amayunithi angenasilinganiso sobude** Abafundi bangafunda yonke inqubo yokwenza isilinganiso ngokusebenzisa amayunithi angenasilinganiso.isilinganiso ngamayunithi angenasilinganiso akumele abukelwe phansi kunokulinganisa ngamayunithi anesilinganiso. isilinganiso ubude ngamayunithi angenasilinganiso kuhlanganisa ukubala ukuthi mangaki amayunithi akhethiwe afana nobude baleyonto elinganisiwe.isib. ubude bedesiki buyizandla eziyi-8. Abafundi abalinganise izinto eziningi ezehlukene besebenzisa uhla lwezinto njengamayunithi angahleliwe. Zintathu izindlela zokusebenzisa amayunithi angahleliwe: • Ukupakisha izinto eziifanayo nezlnobude obulinganayo phezu kwentambo lapho uzobona ukuthi zingaki izinto ezingangalobobude njengo-ibhokisi likametshisi,izivalo zamabhodlela afanayo noma izinto zokubala,amapensela amasha apakishiwe kusuka ekuqaleni uya ekugcineni kwedesiki. Okusemqoka yilokhu- • Zonke izinto ziinobude obulinganayo.Ngeke ushosho ukuthi incwadi inobubanzi obuzivalo zamabhodlela ezyi-12 uma izivalo zambhodlela zinobungako obungalingani.isib,izivalo zamabhodlela obisi amalitha ayi-12 nezamabhodlela zophuzo olubandayo,namaninkela njll.	Izifundo 2

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4.2 **ubude**	**Ukwethula isinganiso esihleliwe** • Ukuhlawumbisela ulinganise, uqagele,uhlele bese ubhala ubude ngamamitha (kungaba amamtha ngezinduku noma ubude bentambo ngamamitha) ngesilinganiso esihleliwe sobude • Ukuhlawumbisela nokulinganisa ubude ngamasentimitha usebenzisa irula Alukho uguquko olungenziwa phakathi kwamamitha	• **Ukwethula isinganiso esihleliwe** • Ukuhlawumbisela ulinganise, uqagele,uhlele bese ubhala ubude ngamamitha (kungaba amamtha ngezinduku noma ubude bentambo ngamamitha) ngesilinganiso esihleliwe sobude	• Azikho izikhala ezishiywayo phakathi nezinto: zidinga ukupakishwa ngendlela yokuthi zithintane. • Ukusebenzisa izinto ezifanayo njengngamayunithi angenasilinganiso.Beka intoeduze kwenye,susa eyokuqala uyibeke endaweni yalena yesibili.Lokhu kwenzeka uma usebenzisa isandla,ubude unyawo,noma amanyathelo. • Ukusebenzisa into eyodwa njengesilinganiso esingenasilinganiso ulokhu uyiphenqa noma ubeke uphawu lapho uzoqala khona nalapho uzogcina khona ngaphambi kokushelela. Abafundi mabafundiswe ukusho amayunithi. Isib. Incwadi inobude bezivalo zama-bhodlela ayi-12 ububanzi, ikilasi linobude obungamanyathelo angama-38. Uma abafundi sebeke balinganisa ngeyunithi izikhathi eziningana, banga hhawumbisela basho ukuthi ubude obungakanani bento obunalingana naleyo yunithi.Kusemqoka kuhlawumbisela ngaphambi kokulinganisa kodwa kungenziwa uma abafundi sebeke bayisebenzisa leyo yunithi.. Abafundi kumele bafundiswe ukuze bakwazi ukuqhathanisa ubude,ukuphakama, noma ububanzi ngokusebenzisa iyunithi efanayo.isib.Uma isilinganiso sobubanzi bomnyango kuyizandla nobubanzi bedesiki bungamapeni ayi 8 ubude,angeke usho ukuthi umnyango ubanzi ngokuthe xaxa kunedesiki. Abafundi kumele balinganise ngohla lwamayunithi angahleliwe,ukuze bakwazi- • bayaqala ukuqonda ukusebenzisa amayunithi amancane,kusho ukukhula kwesikhathi isib.ububanzi bekilasi bungamanyathelo angama-20 kodwa ubude obungama-48 bezinyawo • bayaqala ukusebenzisa amayunithi lawo afanele lokho okulinganiswayo.isib. isilinganiso ububanzi bekilasi ngezivalo zamabhodlela kuwukuchitha isikhathi.	

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4.2 **ubude**			**Ukuhlawumbisela,isilinganiso,ukuqhathanisa nokubhala ubude,ukuphakama nobubanzi ngokusebenzisa amamitha** Abafundi bahlanganisa ulwazi lwabo lokuqonda ubude nge-1-imitha, nokusebenzisa ubude bemitha isilinganiso.Lokhu kwenzakala kahle uma abafundi sebelinganisa ngethulusi lemitha(njengerula lemitha;induku enqanyulwe yenza imitha noma intambo enobude obuyimitha).Ukukubona ubude bemitha kwenza abafundi babe nesithombe sokwazi ukuthi imitha lide kangkanani.Kuyenzeka isilinganiso amamitha ngokusebenzisa isondo lokukala, kodwa ubude bemitha bungabonakali. Abafundi abathole izinto ezinobude bemitha.Kuyasiza ukuthi nsukuzonke kube nezinto eziqhathaniswayo.isib.ububanzi bomnyango nokuphakama kwefasitela kuvamise ukuba imtha-1.Yikho lokhu okusiza abafundi bakwazi ukusebenzisa imitha ekulinganiseni ubude noma ububanzi nokuhlawumbisela ubude bezinye izinto ngaphandle kokulinganisa.. Abafundi kumele bahlawumbisele ngaphambi kokulinganisa.Bathola izinto ezinde ngokuthe xaxa nezifishanyana kunemitha-1.Bangalinganisa izinto eziningi ngamamitha. Qhathanisa ubude ngezinto ezehlukene. **Ukurekhoda isilinganiso** Nanxa isilinganiso kulikhono eliphathekayo, kwezinye ikhathi abafundi kumele barekhode izilinganiso abazitholile (ngamayunithi angahleliwe namamitha) **Ukulinnganisa ubude ngokuxazulula izinkinga nokubala ezimeni ezijwayelekile** Ngesikhathi esinikeziwe sezinombolo,ukusebenza kanye nobudlelwano kwazo abafundi baxazulula izinkinga besebenzisa isimo esijwayelekile njenge- • isilinganiso esingahlelekile sobude • isilinganiso ubude ngamamitha Qikelela ubheke uhla lwezinombolo eziqondene neThemu, bese ubheka uhla lwezinhlobo zezinkinga eziqondene naleyo themu. Qikelela ubheke uhla lwezinombolo eziqondene neThemu, bese ubheka uhla lwezinhlobo zezinkinga eziqondene naleyo themu	

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4.3 **isisindo**	**Isilinganiso esingahlelekile** • Ukuhlawumbisela ulinganise, uqhathanise uhlele bese ubhala isisindo usubenzisa isilnganisa esingalinganisiwe. Nokuzimelela isib, amabhuloki, izitini njll, • Ukusebenzisa ulimi ukhuluma ngokuqhathanisa, isib, kulula, kuyasinda, kulula xaxa, kuyasinda xaxa • U**kwethula isilinganiso esingahlelekile** • ukuqhathanisa uhlele bese ubhala ukukhangisa ngesisindo sazosibe siveziwe ephaketheni ngokwamakilogramu isib amakilogramu ama 2 erayisi,ne1 kilogramu likafulawanoma ngamagramu isib. Amagramu eswayi ang-500	**Isilinganiso esingahlelekile** • Ukuhlawumbisela ulinganise, uqhathanise uhlele bese ubhala isisindo usubenzisa isilnganisa esingalinganisiwe. Nokuzimelela isib, amabhuloki, izitini njll, • Ukusebenzisa ulimi ukhuluma ngokuqhathanisa, isib, kulula, kuyasinda, kulula xaxa, kuyasinda xaxa • U**kwethula isinganiso esingahlelekile** • ukuqhathanisa uhlele bese ubhala ukukhangisa ngesisindo sazosibe siveziwe ephaketheni ngokwama kilogramu isib amakilogramu ama 2 erayisi,ne1 kilogramu likafulawanoma ngamagramu isib. Amagramu eswayi ang-500	**Yini okuhlukile eBangeni 2?** EBangeni 2 abafundi bagxile esilinganisweni esingahlelekile sesisindo. Abafiindi bakujwale isilinganiso ukuzimelela uma benza loku. Sebeqalile futhi ukusebenza ngama kilograms. Bahlela imikhiqizo yansukuzonke enesisindo esibhalwe ama kilograms. Bafunda isisindo sabo esikalweni sasendlini yangasese. **Isilinganiso esingalinganisiwe sesisindo kesebenza isilinganiso sokuzimelela nezingalinganisiwe** Abafundi bangafunda imithetho nokwenziwa kwesilinganiso kusebenza izilinganiso ezingalinganisiwe. Ukukala ngezilinganiso ezingalinganisiwe akufanele zibukelwe phansi ukunalezi ezinesilinganiso. Abafundi kumele bahlanganise amkhono abo okulinganisa ngokwenza izilinganiso ezingahleliwe isilinganiso isisindo ngesilinganiso esingahlelekile. Izisindo ezenzelwe isilinganiso izinto ezithengiswayo. Uma singekho isilinganiso esihlelelwe izinto ezithengisayo, ungasenza ngokuhlanganisa okuhamba ngakubili njengalokhu okulandelayo ikhothenga: inkomishi kayogathi, ingezansi lebhodlela lamalitha ama 2, ingezansi lebhodlela lobisi elingamalitha ama 2, (izitsha ezifanayo zibekwa ngokulengisa ezinhlangothini zombili zekhothenga). Isilinganiso isisindo ngezilinganiso ezingenasilingasilinganiso, isilinganiso ngesisindo samayunithi esingenasilinganiso esifaka ukubala ukuthi mangaki amayunithi anesisindo esifana nento ekaliwe. Isibonelo. Irula linesisindo esilinganayo namabhuloki ayi 9. Abafundi kumele balinganise izinhlobonhlobo zezinto ngamayunithi angahlelekile. Abafundi kumele bafundiswe njalo ukubhala iyunithi uma benikeza isisindo, isib. Incwadi inesisindo esifanayo nomabula abangama 34. Uma abafundi bekale iyunithi kaningi, kufanele bahlawumbisele ukuthi mangaki amayunithi azoba nesisindo esifanayo naleyonto abayikalile. Ukuqagela ngaphambi kokuthi bakale kubalulekile, kodwa kungenziwa kuphela uma abafundi sebelinganisile naleyo yunithi Abafundi badinga ukufundiswa ukuze bakwazi ukuqhathanisa isisindo sezinto ezehlukene kusetshenziswa iyunithi efanayo. Isibonelo uma irula linesisindo esingangamabhuloki 20 nesikele sinesisindo somabula abanga20, ngeke usho ukuthi kunesisindo esilinganayo noma cha, noma ikuphi okusinda kakhudlwana.	

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4.3 **isisindo**	• ISILINGANISO izisindo zabo ngokusebenzisa isikali sasendlini yokugeza. Akukho zinguquko ezilindekile phakathi kwamagramu namakilogramu	• Iapho kunesikali sasendlini yokugeza abafundi bangazilinganisa izisindo zabo besebenzisa amakilogramu. Okulindelekile yikuthi abafundi bazofunda inombolo eseduze nolayini esikalini Bazochaza izisindo njenge cishe/maduze/ ngaphezulu/ngaphansi/ yiso nqo inombolo (yamakilogramu) bazofunda izinombolo zesikali. • Lapho isikali sokuzimelela esinezi ngcezu zesisindo ngamagabelo angamagramu, abafundi bangalinganisa izisindo zezinto ezehlukene Akukho zinguquko ezilindekile phakathi kwamagramu namakilogramu	**Ukubhala izilinganiso** Yize isilinganiso kuyikhono lokwenza, abafundi kumele babhale loko abakulinganisile ngazozonke izikhathi. **Ukusebenza ngama grams** • ukuhlela umkhiqizo ngokwesisindo abafundi bengasebenza ngegilosa ethengiwe ngama grams, lapho khona inombolo yama grams ibhaliwe ephaketheni. Abafundi bangaqhathanisa isisndo samaphakethe anezinto ezingafani (njenge, ushukela, impuphu, irayisi nensipho eyimpuphu yokuwasha) adayisa ngama grams. Abafundi banganikezwa uhla lezinto ezipakishwe ngezindlela ezingefani ukuze kulandelaniswe kuqale kokusinda kakhulu kuye kokulula, lapho khona kulandelaniswa ngokwesisindo esibhalwe ephaketheni ngalinye isib. 2 g iraysi, 1 g ushukela, 5 g impuphu, 10 g istambu. Abafundi badinga ukwazi ukubhala ngokufingqiwe “g” okumele grams. **Ukusebenza ngama kilograms** • ukuhlela umkhiqizo ngokwesisindo abafundi bengasebenza ngegilosa ethengiwe ngama grams, lapho khona inombolo yama grams ibhaliwe ephaketheni. Abafundi bangaqhathanisa isisndo samaphakethe anezinto ezingafani (njenge siriyeli, itiye, ikhofi, usawoti, ubhontshisi, amaphakethe kashukela amancane, amaphakethe amancane obisi oluyimpuphu, amaphakethe kajeli, amaphakethe amancane erayisi) adayisa ngama grams. Abafundi banganikezwa uhla lezinto ezipakishwe ngezindlela ezingefani ukuze kulandelaniswe kuqale kokusinda kakhulu kuye kokulula, lapho khona kulandelaniswa ngokwesisindo esibhalwe ephaketheni ngalinye isib. 2 kg iraysi, 1 kg ushukela, 5 kg impuphu, 10 kg istambu.	

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4.3 **isisindo**			Kubalulekile ukuthi abafundi bakhonjiswe okuncane, ukusindayo okupakishiwe njengo sawoti nalezo namaphakethe amakhulu kodwa alula njengama rice crispies noma amacorn flakes. Loku kubenza babone ukuthi akusho ukuthi ubukhulu bephakethe kusho ukuthi liyasinda ukenelincane, ngaphandle uma kulinganiswa ngokuqhathanisa into ephakathi ephaketheni efanayo. Ungaba nesiqiniseko sokuthi uma iphakethe lilikhulu linesisindo esikhulu uma • kuqhathaniswa into ephakathi efanayo; kanye • uma uhlola isisndo esikalini (okungadingeki emabangeni aphansi). Abafundi badinga ukwazi ukubhala ngokufingqiwe “kg” okumele kilograms Abafundi akudingekile ukuthi bafunde isikali sasekhishini ngama grams. Loku kwenziwa emazingeni aphakathi emfundo. **Ukufunda isikali sasendlini yokugezela** Lapho khona kunezikali zasendlini yangasese abafundi bangazisebenzisa ukufunda isisndo sabo. Kunezinhlobo ezimbili zezikali zasendlini yangasese: esezinombolo nesiluthi. Isikali sezinombolo kulula ukusisebenzisa ngoba isisindo sibhalwa ngezinombolo. Uma unesikali sasendlini yangasese sezinombolo, bheka ukuthi isisindo sikalwa kuphela ngama kilograms. Ungazihlela kabusha izinye izikali ukuze zikhombise ama kilograms. Uma ungakwazi ukusihlela ukuba sikhombise ama kilograms, bafundise abafundi ukuba bangawanaki amakilograms okwamanje. Eziningi izikali zasendlini yokugezela ezinothi zibhalwe izinombolo ngama 10 kg igabela ngalinye, zibe nomugqa omude ukeminye ekhombisa ama 5 kg. Imigqa ye 1 kg ngalinye ayinazo izinombolo. Loku kufana nendlela imigqa esebenza ngayo eruleni. Yenza abafundi baqale ngokubala ukuze babone ukuthi kunezikhala eziyi 10ngaphambi kophawu la 10 kg, ukuze isikhala ngasinye sizomela 5 kg. Abafundi bangafunda isillinganiso ngaphandle kwesikali sangampela sasendlini yangasese kanye nezithombe zesikali zesikali sasendlini yangasese. Kulula okufunda isisindo kusetshenziswa isithombe ukunokusebenzisa isikali sangampela.	

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4.3 **isisindo**			**Ukubhala okulinganisiwe** Yize isilinganiso kuyikhono lokwenza, abafundi kumele babhale izilinganiso zabo ngasosonke isikhayhi. **Isilinganiso isisindo esimweni esejwayelekile sokuxazulula izinkinga nokubala** Ngesikhathi esibekelwe ukusebenza kwezinombolo nobudlelwane, kungaxazululwa izinkinga ezisebenzisa isimo esejwayelekile se: • Isilinganiso esingahlelekile sesisindo; kanye • Isilinganiso isisindo ngama kilograms. Qaphela ukuthi uhla lwezinombolo luba lisezingeni lethemu, kanye nezinga lezinhlobo zezinkinga. Abafundi abalindelekile • ukwazi ukuthi 1 000 g = 1 kg; noma • ukushintsha phakathi kwama grams nama kilograms. Ukubala ngama grams zingakhethwa ukuba zingeqi 1 000 g.	4 izifundo

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIW (esifundweni sehora eli 1 nemizuzu engama 24)
4.4 Umthamo	**Isilinganiso esingahlelekile** • Uhlawumbisela nokulinganisa, ukuqhathanisa nokuhlela umthamo wesitsha esingawumumatha (isitsha esngakumumatha uma sigcwalisiwe) noma okumumethwe isitsha ngokusebenzisa isilinganiso esingalinganisiwe isib. isipuni namankomishi • Ukuchaza umthamo wesitsha ngokubala ukuthi mangaki amayunithi angahleliwe angagcwaliswa, kulesositsha isib. ibhodlela lingagcwala izinkomishi ezi-4. **Ukwethula isilinganiso esingahlelekile** • Ukuhlawumbisela ulinganisa, uqhathanisa, uhlele bese ubhala lowomthamo waleyonto ngokulinganisa ngamalitha,uhhafu welitha nekota yelitha.	Ngesikha somsebenzi wokuzimela abafundi kumele baqhubeke ukuqagela nokulinganisa, ukuqhathanisa, ukuhlela nokubhala umthamo wesitsha noma okumumethwe esitsheni kusetshenziswa isilinganiso esingahlelekile. Ukulandela izindlela zokupheka, okufaka nokubhaka, kuyasebenza esimweni esejwayelekile lapho khona abafundi bezozijwayeza isilinganiso. Ukhetha izindlela zokupheka lapho izithako zinikezwe ngezikalo zezinkomishi, amathesipuni, noma amayunithi ezingahlelekile. • Qhathanisa uhlele umthamo wezinhlobonhlobo zamabhodlela nezinto zegilosa lapho khona umthamo ochazwe khona ephaketheni. • Sebenzisa noma ibhodlela eliyilitha e-1 noma ojeke abayilitha e- 1ukuqagela nokulinganisa, ukuqhathanisa, ukuhlela kubhalwe umthamo wezitsha noma okumumethwe ezitsheni ngamalitha. Bheka amanothi kathemu 3. Abafundi kumele banikezwe imisebenzi ebhalwayo ukuhlanganisa okulandelayo,okufaka ukufunda izithombe ze • Imikhiqizo ezinomthamo obhaliwe ukuze kulandelane ngendlela ehlelekile; kanye • Izithombe zojeke lapho umthamo usondele enombolweni ethi ilitha e- 1 noma amalitha ama-2 ngokulandelana kobukhulu. Okulindelekile ukuthi abafundi bafunda kuphela inombolo yomugqa olandelayo ngobukhulu noma uhla. Bachaza umthamo wabo ngokuthi cishe/eduze kwa ngaphezudlwana / ngaphezulu ngaphansi kulingana nenombolo(yamalitha) bafunda ujeke. **Isilinganiso umthamo njengesimo esejwayelekile sokuxazulula izinkinga nezibalo** Ngesikhathi esibekelwe ukusebenza kwezinombolo nobudlelwane, kungaxazululwa izinkinga ezisebenzisa isimo esejwayelekile se: • Isilinganiso esingahlelekile somthamo; • Isib. Ugogo usebenzisa izinkomishi ezi- 2 zobisi ukwenza uphudingi. Uma ephinda kabili izithako, uzodinga ubisi olungakanani? • amlitha Qaphela ukuthi uhla lwezinombolo luba lisezingeni lethemu, kanye nezinga lezinhlobo zezinkinga.		

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIW (esifundweni sehora eli 1 nemizuzu engama 24)
4.4 **Umthamo**	• Ukuqhathanisa nokuhlela, nokubhala ngokukhangisa umthamo waso siveziwe ephaketheni ngokwamalitha isib. Amalitha ama-2l obisi, ilitha 1yobisi, amalitha ayi-5l kapende,noma ngamamililitha. isib.amamililitha anga-500ml obisi,amamililitha anga-340ml wesiphuzo esibandayo, amamililitha anga-750ml kawoyela. • Ukwazi ukuthi inkomishi elingene ingamililitha anga-250ml. • Ukwazi ukuthi ithisipuni ingamamililitha angu-5ml Alukho uguquko oludingakalayo phakathi kwamamililitha namalitha			

ITHEMU YESI-2 YEBANGA LESI-3 5. ULWAZI OLUQOKELELWE				
IZIHLOKO	**UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI ESINQUNYIW** (esifundweni sehora eli 1 nemizuzu engama 24)
5.4 **Ukuqoqa nokuhlela ulwazi**	**Ukuqoqa nokuhlela** • ukuqokelelwa kol-wazi ngekilasi noma ngesikole ukuphen-dula imibuzo ezobuzwa uthisha. • Ukuhlela ulwazi olu-nikwe uthisha noma incwadi. • Ukuhlela ulwazi; - uhla - amathali - amathebula			
5.5 **Ukubhala okumele ulwazi**	**Ukubhala okumele ulwazi** Ukubhala okumele ulwazi ngoku- • igrafu yezithombe • i bhagrafu			
5.6 **Ukuhlaziya nokuhumusha ulwazi**	**Ukuhlaziya nokuhumu-sha ulwazi** Ukuphendula imibuzo ngolwazi olunikiwe • igrafu yezithombe • ibhagrafu	Ukuhlaziya ulwazi kulokho okumele ulwazi okunikiwe.	Uma abafundi sebesebenze kulolonke ulwazi oluphelele ngethemu 1,baye bahl-aziye izimo ezehlukene zokubhala okumele ulwazi kumele ikunike umqondo. Kuyancomeka ukuthi kuthemu 2unika abafundi ulwazi ukuba baluhlaziya kanje; • igrafu yezithombe • Amathebula Abafundi baphendula imibuzo leyo ebuzwa uthisha mayelana negrafu nethebula,bheka uthemu 1 nemibuzo efanele nehlukene.	1 isifundo

ITHEMU YESI-3 YEBANGA LESI-3 1. IZINOMBOLO, IZIMPAWU NOBUDLELWANO BAZO				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
1.1 **Bala izinto eziphathekayo**	**Ukubala izinto eziphathekayo** Hlawumbisela ubale izinto eziphathekayo okungenani eziyi-1000 nsuku zonke ngokuthembeka. Isu lokwenza amaqoqo liyagqugquzelwa.	Yenza iqoqo lezinto eziphayhekayo zansukuzonke ezingama-750 ukuhlawumbisela ubale ngokuthembekile. Hlawumbisela ngokuzwakalayo inombolo yezinto eziphathekayo ezingabalwa.	**Yimuphi umehluko eThemu 2?** Uhla lwezinombolo luyanda / khula abafundi kufanele banikwe ithuba lokuthinta, nyakaziza babale izinto ezingama-700 ezingamaqoqo enziwe ngokuhlukene. Bheka amanothi kwThemu 1 kanye neye 2	
1.2 **Bala uyephambili ubuye uhlehle**	**Bala uyephambili ubuye uhlehle kanje:** • Nga-1 kusukela kunoma iyiphi inombolo ephakathi kuka -0 ne -1000 • Ngokuyi -10 kusukela kunoma iyiphi inombolo uphindaphinda phakathi kuka-0 ne -1000 • Ngoku - 5 kusukela kunoma iyiphi inombolo uphindaphinda phakathi kuka -0 ne 1000 • Ngaku-2 kusukela kunoma iyiphi inombolo uphindaphinda phakathi kuka -0 kuya koku 1000 • Ngoku-3 usukela kunoma iyiphi inombolo uphindaphinda phakathi kuka -0 kuya koku 1000	**Bala uyephambili ubuye uhlehle kanje:** • Nga-1 kusukela kunoma iyiphi inombolo ephakathi kuka -0 ne -700 • Ngokuyi -10 kusukela kunoma iyiphi inombolo uphindaphinda phakathi kuka-0 ne 700 • Noku - 5 kusukela kunoma iyiphi inombolo uphindaphinda phakathi kuka -0 ne 700 • Ngaku-2 kusukela kunoma iyiphi inombolo uphindaphinda phakathi kuka -0 kuya koku 700 • Ngoku-3 usukela kunoma iyiphi inombolo uphindaphinda phakathi kuka -0 kuya koku 700	**Yimuphi umehluko eThemu 2?** Uhla lwezinombolo luyakhula kufinyelela ezi- 700. **Bheka amanothi eThemu yoku-1 kanye neye 2**	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.2 **Bala uyephambili ubuye uhlehle**	• Ngoku-4 kusukela kunoma iyiphi inombolo uphindaphinda phakathi kuka -0 kuya koku 1000 • 20s, 25s, 50s,100s kufinyelela okungenani e- 1 000	• Ngoku-4 kusukela kunoma iyiphi inombolo uphindaphinda phakathi kuka -0 kuya koku 700 • 20s, 25s, 50s,100s kufinyelela okungenani e- 1 000		
1.3 **Izimpawu namagama ezinombolo**	**Ukwazi nokufunda izinombolo** • Khomba, ubone, ufunde izimpawu zezinombolo kusukela ku 0 kuya e- 1000 • Bhala uphawu lenombolo kusukela ku 0 kuya e -1000 • Khomba, ubone, ufunde amagama ezinombolo kusuka ku 0 kuye ema 1000 • Bhala amagama ezinombolo kusuka ku 0 kuye ema 1000	**Ukwazi nokufunda izinombolo** • Khomba, ubone, ufunde izimpawu zezinombolo kusukela ku 0 kuya e- 1000 • Bhala uphawu lenombolo kusukela ku 0 kuya e- 1000 • Khomba, ubone, ufunde amagama ezinombolo kusuka ku 0 kuye ema -500 • Bhala amagama ezinombolo kusuka ku 0 kuye ema- 500	**Yimuphi umehluko eThemu 2?** Abafundi bayakhomba, bafunde babhale: • Izimpawu zezinombolo kufinyelela e-1000; kanye • Amagama ezinombolo kufinyelela ema- 500. Bheka amanothi eThemu 2	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.4 **Chaza, qhathanisa, bese uhlela izinombolo**	**Hlela, uqhathanise izinombolo kufinyelele ema-999** • Hlela izinombolo eziphelele kufinyelele ema-999 kusukela kokuncane kakhulu kuye kokukhulu kakhulu, okukhulu kakhulu kuye kokuncane kakhulu. • Qhathanisa izinombolo eziphelele kufinyelele ema-999 usebenzisa okuncane kuna, okukhulu kuna, okuningi kunokunye, okumbalwa kunokunye kanye nokulingana. **Sebenzisa izinambolo ezijwayelekile ukukhombisa ukuhleleka kwezinamba ngokwesikhundla** • Sebenzisa, ufunde, ubuye ubhale izinombolo ezijwayelekile kufaka indlela efingqiwe kufinyelela ema- 31.	**Hlela, uqhathanise izinombolo kufinyelele ema-500** • Hlela izinombolo eziphelele kufinyelele ema-500 kusukela kokuncane kakhulu kuye kokukhulu kakhulu, okukhulu kakhulu kuye kokuncane kakhulu. • Qhathanisa izinombolo eziphelele kufinyelele ema-500 usebenzisa okuncane kuna, okukhulu kuna, okuningi kunokunye, okumbalwa kunokunye kanye nokulingana. **Sebenzisa izinambolo ezijwayelekile ukukhombisa ukuhleleka kwezinamba ngokwesikhundla** • Sebenzisa, ufunde, ubuye ubhale izinombolo ezijwayelekile kufaka indlela efingqiwe kufinyelela ema- 31.	**Yimuphi umehluko eThemu 2?** Abafundi bayahlela baqhathanise izinombolo kufinyelela ema-500 baqhubeke nokusebenzisa izindlela ezifingqiwe ukubhala izinombolo ezijwayelekile. Bheka amanothi eThemu 2	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.5 Ubungako benani lenombolo	**Bona ubungako benani lenombolo kwizinombolo ezihamba ngantathu kufinyelela ema- 999** • Ukwazi ukuthi inombolo ngayinye imeleni. • Ukuhlakaza izinombolo ezihamba ngantathu kufinyelela ema - 999 ngokuphindaphinda ngokuyi-100,ngokuyishumi kanye nokukodwa / imivo. • Khomba ubuye usho ubungako benombolo ngayinye.	**Bona ubungako benani lenombolo kwizinombolo ezihamba ngantathu kufinyelela ema- 999** • Ukwazi ukuthi inombolo ngayinye imeleni. • Ukuhlakaza izinombolo ezihamba ngantathu kufinyelela ema - 999 ngokuphindaphinda ngokuyi-100,ngokuyishumi kanye nokukodwa / imivo. • Khomba ubuye usho ubungako benombolo ngayinye.	**Yikuphi okuhlukile eThemu 3** Inhlobo efanayo yemibuzo nemiyalelo inikeziwe eThemu 3.uhla lwezinombolo lwengeziwe kepha abafundi basasebenza ngezinombolo ezihamba ngantathu. kuleThemu kufanele kuqhutshekwe nokugxila e: • Ubungako benombolo; • Ukuhlakaza izinombolo ngamakhulu, amashumi, ngakunye usebenzisa amakhadi ezimeli bungako bezinombolo kanye nezinye izinsiza ekwenzeni ubungako bezinombolo; • Ukubhala ngendlela yokwandisa izinombolo. Bheka amanothi eThemu yesi- 2	
Izinkinga zezibalo zezinombolo				
1.6 Amaqhinga okuxazulula izinkinga zezibalo	Sebenzisa lamaqhinga alandelayo ukuxazulula izinkinga zezibalo bese uchaza isixazululo sakho: • Ukwakha nokuhlakaza izinombolo • Ukphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo • Ukusondezela emashumini	Sebenzisa lamaqhinga alandelayo uma uxazulula izinkinga: • Ukwakha nokuhlakaza izinombolo • Ukphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo • Ukusondezela emashumini	Abafundi kulindeleke baxazulule izinkinga zezibalo zamagama besebenzisa lamaqhinga alandelayo: • Ukwakha nokuhlakaza izinombolo • Ukphinda kabili nokuhlukanisa kabili • Umugqa wezinombolo • Ukusondezela emashumini Bheka amanothi eThemu 2	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.7 **Ukuhlanganisa nokususa**	Xazulula izinkinga zezibalo zamagama esimweni esjwayelekile bese uchaza isisombululo okufaka ukuhlanganisa nokususa okuholela ezimpendulweni ezifinyelela ema-999.	Xazulula izinkinga zezibalo zamagama esimweni esjwayelekile bese uchaza isisombululo okufaka ukuhlanganisa nokususa okuholela ezimpendulweni ezifinyelela ema-800.	Izibonelo zezinhlobo zezinkinga ezingenziwa kuleThemu - Izinkinga zezibolo zokuhlanganisa nokususa - UPamela uqoqe izivalo zamabhodlela ezingama- 413. Uma uSipho emnika izivalo zamabhodlela ezingama-29, uzoba nenombolo efanayo noPamela. - Zingaki izivalo zamabhodlela abazoba nazo bobabili? - Ubenezingaki izivalo zamabhodlela uSipho ? • IBANGA LESI-2 lineqoqo lomabuli abangama-500. IBANGA LESI-3 linomabuli abambalwa nge-170 kuneBanga 2.bangaki omabuli bebangaBanga 3 bebonke? • uJabulani noZanele baqoqe ubuhlalu obungama-250.uJabulani wathola obungama-160, bungaki ubuhlalu uZanele abutholile.	
1.8 **Ukuhlanganisa ngokuphindelela okuholela ezibalweni zokuphindaphinda**	Xazulula izinkinga zezibalo zamagama esimweni esjwayelekile uchaze isisombululo ufaka ukuphindaphinda okunezimpendulo ezifinyelela ema-99.	Xazulula izinkinga zezibalo zamagama esimweni esjwayelekile uchaze isisombululo ufaka ukuphindaphinda okunezimpendulo ezifinyelela ema-75.	**Izibonelo zezinhlobo zezinkinga ezingenziwa kuleThemu** **Uhlobo lwezinkinga: uhlelo ngononina** • Ingadi yemifino inemigqa eyi-12 yezitshalo, umugqa ngamunye unezitshalo eziyisi-7, zingaki izitshalo izitshalo ezisengadini zizonke? • Ingadi yemifino inemigqa eyi-12 yezitshalo, umugqa ngamunye unenombolo elinganayo yezitshalo, uma zizonke zingama-48, zingaki izitshalo kumugqa ngamunye? • Ingadi yemifino inezitshalo ezingama-48 ezitshalwe emigqeni, kunezitshalo eziyisi-7 kumugqa ngamunye, mingaki imigqa esengadini ? **Ukuqhathanisa /ubukhulu bokulinganiselwa** UThemba unoswidi abayi-6, uThemba unokuphidwe kathathu ngokuningi kuno Senzo, bangaki oswidi uSenzo anobo? UZodwa unoswidi abayi-18, lokhu kuphindwe kathathu ngobuningi kunoThemba, bangaki oswidi uThemba anabo? isilinganiso Amapetshisi athengisa ngama- R8 ikhilogremu. Uma ngithenga amakhilogremu ama-4, kuzoba yimalini?	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.8 **Ukuhlanganisa ngokuphindelela okuholela ezibalweni zokuphindaphinda**			Amapetshisi athengisa ngama- R8 ikhilogremu. Uma nginama- R32, mangaki amakhilogremu engingawathenga? Ngithenga amakhilogremu ama-4 amapetshisi ngama- R32. Libiza malini ikhilogremu elilodwa? **Usebenzisa ukusondezela** Itekisi ithatha abagibeli abayi-15, ingabe abantu abayi-73 bangalingana ematekisini ama-5?	
1.9 **Ukwenza amaqoqo nokuhlukaniselana okuholela ezibalweni zokuhlukanisa**	Xazulula izinkinga zezibalo eziphathekayo uchaze isisombululo okufaka ukuhlukanisa ngokulinganayo kanye namaqoqo kufinyelela kuma -100 okungafaka izinsalela	Xazulula izinkinga zezibalo eziphathekayo uchaze isisombululo okufaka ukuhlukanisa ngokulinganayo kanye namaqoqo kufinyelela kuma -75 okungafaka izinsalela	**Izibonelo zezinhlobo zezinkinga ezingenziwa kuleThemu** • UNksz Tshongwe uqoqela ndawonye amakhekhe ayi-66 emaphaketheni ayi-6, mangaki amaphakethe okuyisi-6 anawo? • UThobo uthola ama- R72 ngokuthengisa amathikithi omdlalo ngama- R9,00. mangaki amathikithi awathengisilel? • Umphakathi usiza imindeni eyi-9 elahlekelwe izimpahla emlilweni.kunezingubo eziyi-75 imindeni ezozihlukanisa ngokulinganayo. a) Umndeni ngamunye uzothola izingubo ezingaki? b) Zingakhi ezisele? **silinganiso** • Amapetshisi athengisa ngama- R8 ikhilogremu. Uma nginama- R32, mangaki amakhilogremu engingawathenga? • Ngithenga amakhilogremu ama-4 amapetshisi ngama- R32. Libiza malini ikhilogremu elilodwa? Izinkinga zesilinganiso izinhlobo ezintsha zezinkinga eThemu 3. Abafundi bangadinga isikhathi esengeziwe uma bexazulula lezizinkinga. Bheka amanothi eThemu 2	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.10 **Ukuhlukanisa okuholela emaqhezwini**	Xazulula izinkinga zezibalo bese uchaza isisombululo okfaka ukwabelana okuholela kuzisombululo ezifaka ingxenye eyodwa yeqhezu namaqhezu anezingxenye ezingaphezu kolulodwa. Isibonelo $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{5}$, njll	Xazulula izinkinga zezibalo bese uchaza isisombululo okfaka ukwabelana okuholela kuzisombululo ezifaka ingxenye eyodwa yeqhezu namaqhezu anezingxenye ezingaphezu kolulodwa. Isibonelo $\frac{1}{2}$, $\frac{1}{4}$, $\frac{3}{4}$, $\frac{2}{5}$, njllnjll	**Izibonelo zezinhlobo zezinkinga ezingenziwa kuleThemu** Ukuhlukanisa okuholela emaqhezwini • Hlukanisela abangane abathathu oshokoledi abayi-7 bathole okulinganayo kungasali lutho. • Hlukanisela izingane ezi-4 ngokulinganayo oshokoledi abayi-13,ingane ngayinye izothola abangaki? Iqoqo lamaqhezu • Ugogo unika uZola ama- R12. uZola ufuna ukulondoloza okuthathu kwemali, yimalini okufanele ayilondoloze? • Kunamakhekhe ayi-12 epuletini.u Nomonde uthatha ikota eyodwa yekhekhe kungakanani okusele? **ukubhala** Abafundi akudingekile babhale uphawu lweqhezu, abafundi bafunda ukubhala okukodwa kokuhlanu, amakota amathathu, noma okuthathu kokuyisithupha. Lokhu kubasiza kuqala ukuqonda ukuthi amagama amaqhezu achaza ukuthi zingaki izingxenye ezilinganayo okuphelele okuhlukaniswe kwayizo, Isib. Uhhafu, okuthathu, ikota njll.okwesibili zingaki ezalezo zingxenye ezithathwayo, Isib. Okubili kokuthathu. **Okumele izinkinga zamagama zamaqhezu** Abafundi kufanele badwebe izimphendulo zabo ukukhombisa ukuthi bayayiqonda inking. Lindela ukuthi abanye abafundi bangadweba ngendlela kepha bangayibizi ngendlela ingxenye yeqhezu. Abafundi kufanele basho izingxenye ezihlukanisiwe ngokuzibhala njengo: kubili kokuthathu.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.11 **Imali**	• Bona, ukhombe imali yaseNingizimu Afrika uhlweza namaphepha • Xazulula izinkinga zezimali kufaka isamba noshintshi amarandi noma uhlweza. • Guqula bakathi kwamarandi nohlweza.	• Bona, ukhombe imali yaseNingizimu Afrika uhlweza namaphepha • Xazulula izinkinga zezimali kufaka isamba noshintshi amarandi noma uhlweza. • Guqula bakathi kwamarandi nohlweza.	**Izibonelo zezinkinga ezingenziwa kuleThemu** Inani lemali nokwenza isamba Isib. Bhala 325c ngamarandi nohlweza. Zingaki izindlela ezihlukene ongenza ngazo ama-R400 usebenzisa imali yamaphepha kuphela? Wazi kanjani noma unazo zonke izixazululo? UMnu Zungu umakhi uthola ibhonasi ngokuqeda umsebenzi ngesikhathi.unquma ukuhlukanisa ibhonasi phakathi kwakhe nombazi. Bathola ama- R400 ngamunye. Liyini inani lebhonasi? UNina nabangane bakhe abathathu bahlukaniselana ama-R20,60. Eyedwa kubo uthola malini?	
UKUBALA ESIMWENI ESIKHULULEKILE				
1.12 **Amaqhinga** **(izindlela noma amasu)**	Sebenzisa lamaqhinga alandelayo uma wenza izibalo: • Ukwakha nokuhlakaza izinombolo • Ukphinda kabili nokuh-lukanisa kabili • Umugqa wezinombolo • Ukusondezela emashumini	Sebenzisa lamaqhinga alandelayo uma wenza izibalo: • Ukwakha nokuhlakaza izinombolo • Ukphinda kabili nokuh-lukanisa kabili • Umugqa wezinombolo • Ukusondezela emashumini	Abafundi balindeleke ukuthi babale izinkinga zezibalo zamagama besebenzisa lamaqhinga: • Ukukha nokuhlakaza izinombolo • Ukuphinda nokuhlukanisa kabili ngokulinganayo • Umugqa wezinombolo • Ukuhlanganisa ishumi Bheka amanothi ethemu yoku-1.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**	• Izibalo zokuhlanganisa ukuyofika ema 999 • Izibalo zokususa besukela kuma 999 • Sebenzisa izimpawu ezifanele (+, –, =, ☐) • Phindaphinda wenze amabhondi ezinombolo kuyofika e - 30	• Izibalo zokuhlanganisa ukuyofika ema 800 • Izibalo zokususa besukela kuma 800 • Sebenzisa izimpawu ezifanele(+, –, =, ☐) • Phindaphinda wenze amabhondi ezinombolo kuyofika e - 30	KuleThemu abafundi baqhubeka nokubala ngezinombolo ezihamba ngantathu kufike ema-800. Ukuze bakwazi ukubala ngezinombolo ezihamba ngantathu abafundi kufanele bakwazi uku: • Ukufunda nokubhala izimpawu zezinombolo kufinyelela ema-800 ngokuzethemba; • Ukuhlela nokuqhathanisa izinombolo kufinyelela okungenani ema-800 ngokuzethemba; • Ukubala ngamaqoqo kufinyelela ema-800; kanye • Nokubala ngezikhawu zoku- 2, 3, 4, 5, 10, 50 kanye ne- 100 kufinyelela ema-800 ngokuzethemba. **Izindlela okungenziwa ngazo izibalo zokuhlanganisa nokususa.** • Ukuhlanganisa ngokuhlakaza zombili izinombolo Ukuhlanganisa izinombolo ezihamba ngantathu ngezihamba ngambili 524 + 82 = ☐ = (500 + 20 + 4) + (80 + 2) = 500 + (20 + 80+ (4 + 2) = (500 + 100) + 6 = 600 + 6 = 606 Ukuhlanganisa izinombolo ezihamba ngantathu ngezihamba ngantathu 323 + 436 = ☐ 323 + 436 = = (300 + 20 + 3) + (400 + 30 + 6) = (300 + 400) + (20 + 30) + (3 + 6) = 700 + 50 + 9 = 759 • ukuhlanganisa (ngokuhlakaza inombolo ezohlanganiswa) Abafundi bazohlakaza inombolo ngendlela ezovumelana nabo, Lokhu kukhomba ukuthi bazokwenza ngezindlela ezihlukene. 524 + 82 = ☐ 524 + (40 + 40 + 2) 524 + 40 → 564 + 40 → 604 + 2 = 606	

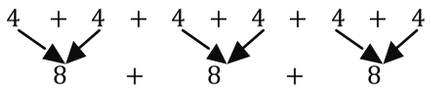
IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**			Ukubala uqhubeka kusukela ema-40 kufike ema-524 kungenziwa ngokubala ngamashumi. Ukuhlanganisa izinombolo ezihamba ngantathu kanye nezihamba ngantathu 323 + 436 = □ = 323 + (400 + 20 + 6) = (323 + 400) + 20 + 6 = (723 + 20) + 6 = 743 + 6 = 749 • ukususa ngokuhlakaza zombili izinombolo izinombolo ezihamba ngantathu ususa ezihamba ngambili 889 - 137 = □ 889 - 137 = (800 + 80 + 9) - (100 + 30 + 7) = (800 - 100) + (80 - 30) + (9 - 7) = 700 + 50 + 2 = 752 • susa ngokuhlakaza inombolo eyodwa 889 - 137 = □ 889 - (100 + 30 + 7) 889 - 100 789 - 30 759 - 7 = 752 sebenzisa ukuhlukanisa ngokulingana ukuhlakaza inombolo 525 + 16 = 525 + 8 + 8 = (525 + 8) + 8 = 533 + 8 = 541 • bala uqhubeka kanye nokubala uhlehle 805 = 798 = □ Ukubala ngakunye kusuka ema-798 kuyisu elifanele ngoba ngoba izinomblo zisondelene.	

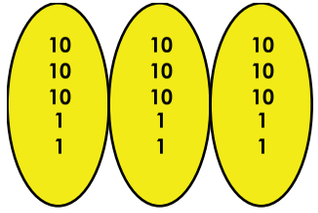
IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**			• Khomba izinombolo eziseduze kweziphindwe kabili 245 + 246 Ungasho ukuthi lesibalo ngokuphinda kabili ama-245 + 1 phinda kabili 246 - 1 245 + 245 + 1 = (200 + 40 + 5) + (200 + 40 + 5) + 1 = (200 + 200) + (40 + 40) + (5 + 5) + 1 = 400 + 80 + 10 + 1 = 400 + (80 + 10) + 1 = 400 + 90 + 1 = 491 • Shintsha inombolo iphindaphinde ngamashumi ususe noma uhlanganise ngokukodwa. Bala uqhubeke noma uhlehle kusondezele eshumini 588 + 9 588 + 10 = 598 598 - 1 = 597 588 + 19 588 + 20 = 608 608 - 1 = 607 **Thuthukisa wenze ngokuphindaphinda amakhono okuhlanganisa nokususa.** Abafundi badinga ukuzilungiselela ngokwenza ngokuphindaphinda izinhlobo ezithize zamakhono okuhlanganisa nokususa. Abafundi kufanele bathole ithuba lokwenza lezinhlobo ezilandelayo zezibalo ngezinombolo ezifinyelela ema-800: Hlanganisa noma susa okuhamba ngakubili ngokuphindaphinda ngama-10, weqe e-100 40 + 70 70 + 80 120 - 30 150 - 60	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**			Isibonelo: 65 + 10 124 + 10 326 - 10 358 - 10 Hlanganisa noma ususe inombolo ehamba yodwa kuya noma kusuka kwinombolo ehamba ngantathu ungeqi amashumi Isibonelo 634 +5 775 + □ = 779 768 - 4 Hlanganisa ususe inombolo ehamba yodwa kuya kanye nokusuka ekuphindaphindeni nge-100 Isibonelo: 600 + 4 500 + 3 700 - 6 800 - 5 Qala ukuhlanganisa kanye nokususa okuhamba ngakubili uphindaphinda nge-100 100 + 100 100 + 200 200 + 200 300 + 400 Abafundi kufanele banikwe ithuba lokwenza ngokuphindaphinda amaphethini ngokuhlanganisa nokususa Uma ngazi ukuthi 1+ 1 = 2	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.13 **Ukuhlanganisa nokususa**			Kanti kuyini loku: 10 + 10 100 + 100 *Qala ukuhlanganisa noma ukususa okuhamba ngakubili kokuphindaphinda ku-suka kunoma iyiphi inombolo enezinombolo ezintathu* Isibonelo: 675 + 100 762 - 100 **Ukubheka iziphumo zezibalo** Ngokubheka ukufaneleka kwesiphumo / isiphumo esifanele Abafundi kufanele baqeqeshwe ukubona isiphumo / isixazululo esifanele. One way to do this is to estimate their answers before calculating. When adding two numbers that are close to each other, e.g. 145 and 146, learners can use doubling as a way of estimating their answers. **Ukubheka iziphumo / izixazululo** Abafundi kufanele bazi ukuthi banga: • Bheka izibalo zokuhlanganisa ngokususa. **Isibonelo**: If 436 + 118 = 454; then 454 - 118 = 436 • Bheka izibalo zokususa ngokuhlanganisa. Isibonelo 684 - 248 = 436, then 436 + 248 = 684 Ukusebenzisa uhlelo lokuphambana ukubheka iziphumo / izigxazululo esinye sezizathu sokufundisa ukuhlanganisa nokususa ndawonye.	

<table>
<tr><th>IZIHLOKO</th><th>UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA</th><th>UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3</th><th>AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI</th></tr>
<tr>
<td>1.14
Ukuhlanganisa ngokuphindelela okuholela ezibalweni zokuphindaphinda</td>
<td>• Phindaphinda izinombolo ngo 2, 3, 4,, 10 kuya kwisamba sama-99
• Sebenzisa izimpawu ezifanele (x, =, ☐)</td>
<td>• Phindaphinda izinombolo ngo 2, 3, 4,, 10 kuya kwisamba sama-99
• Sebenzisa izimpawu ezifanele (x, =, ☐)</td>
<td>kuleThemu abafundi baqhubeka noku:
• Sebenzisa baqonde ulimi lokuphindaphinda;
• Ukumela ukuphindaphinda kuhlelo ngononina;
• Ukusebenzisa izimpawu ezifanele ukuhumusha imisho yezinombolo;
• Ukuqonda ukuthi ukuhlanganisa ngokuphindaphinda kungamelwa usebenzisa uphawu lokuphindaphinda;
• Ukwenza ngokuphindaphinda kanye nokuqonda ukuthi ukuphindaphinda kungenziwa nangayiphi indlela (umthetho wokuguquguqula indlela izinombolo ezimi ngayo);
• Sebenzisa umugqa wezinombolo ukhombise izibalo ukuphindaphinda ukwazi ukuchaza okumelwe (indlela ukugxuma okukhombisa ukuhlanganisa ngngokuphindelela);
• Baqala ukuqonda indlela yokwehlukanisa uma kuphindaphindwa.
• Abafundi baqhubeka nokusebenzisa imifanekiso enhlobonhlobo ukuze baqonde ukuphindaphinda. Bheka amanothi eThemu 2.
Amasu asizayo ukuphindaphinda
• Sebenzisa ukuphindaphinda
Isibonelo:
Gcwalisa umugqa uphindaphinda ngokuhlanu, iyiphi iphethini oyibonayo?
<table>
<tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr>
<tr><td>× 5</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>× 10</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
Phinda kabili inombolo ekumugqa wokuphindaphinda ngokuhlanu ukuthola izinombolo kumugqa wokuphinda ngama -10. Yimaphi amaphethini owabonayo?
Gcwalisa umugqa wokuphinda ngokubili.
<table>
<tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr>
<tr><td>× 2</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>× 4</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
Phinda kabili izinombolo emugqeni wokuphinda kabili ukuthola izinombollo kumugqa wokuphinda ngokune.eyiphi iphethini oyibonayo?</td>
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</table>

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.14 **Ukuhlanganisa ngokuphindelela okuholela ezibalweni zokuphindaphinda**			• Sebenzisa ukuhlukanisa kabili ngokulingana Amaqoqo amathathu okuyi- 8 kwenza-24 Amaqoqo ayisithupha oku- 4 enza- 24  ngakho: Amaqoqo ayisithupha oku-4 ayafana namaqoqo amathathu okuyi-8.	
1.15 **ukuhlukanisa**	• Hlukanisa izinombolo kufinyelele ema-99 ngoku 2, 3, 4, 5, 10 • Sebenzisa izimpawu ezifanele (÷, =, ☐)	• Hlukanisa izinombolo kufinyelele ema-99 ngoku 2, 3, 4, 5, 10 • Sebenzisa izimpawu ezifanele (÷, =, ☐)	**Yimuphi umehluko eThemu 2?** KuleThemu uhla lwezinombolo abafundi abazosebenza ngalo lukhulile kufinyelela ema-99.ukusebenza gohla lwezinombolo olukhulile kusho ukuthi abafundi kufanele baqale ukusebenza ngamasu afanele ukubala kanye nabakubhale phansi ukufinyelela esiphumeni. **Amasu okubhala phansi** ngeThemu 3 kanye 4 abafundi bazokwenza bephindaphinda ukubhala ukuhlukanisa besebenzisa izinombolo banganciki emidwebeni.amasu okubhala ngekhe afinyeleleke kubafundi uma bengakwazi ukubala.imizamo yokuzama indlela abangayiqondi ingaba neziphumo ezinezimpazamo abafundi abangeze bakwazi ukuzibona.kubalulekile ukuthi abafundi bakwazi ukukhomba ukuxhumana phakathi kokuphindaphinda kanye nokuhlukanisa.inhloso yokubhala phansi kufanele kube ukuthuthukisa ukuqonda ubudlelwano bezinombolo. **Ukusebenzisa ukuphindaphinda** Bafundi kufanele bakwazi ukusebenzisa ulwazi lwabo lokuphindaphinda, kufanele baqale ukuthi: “Kuyini engikwaziyo ngokuphindaphinda ukuze ngithole imphendulo?” 96 ÷ 3 = ☐ Ngiyazi: 10 x 3 = 30 Manjalo: 96 - 30 = 66 Ngiyazi 10 x 3 = 30 Manjalo: 66 - 30 = 36 Ngiyazi 10 x 3 = 30 Manjalo: 36 - 30 = 6 6 ÷ 3 = 2	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.15 **ukuhlukanisa**			Kulendlela engenhla, abafundi basebenzisa ukuphindaphinda manjalo basuse ngokuphindelela ema-96.bahlanganise ukuthi basuse kangaki: 2 + 10 + 10 + 10 = 32 **Ukuhlakaza izinombolo** Abafundi banga 'hlakaza' 96 kube izinombolo ezihamsisana no- 3.abafundi baphinde basebenzise ulwazi lwabo lokuphindaphinda benze izibalo zokuhlukanisa. 96 ÷ 3 = □ 96 = 30 + 30 + 30 + 6 10 amaqoqo oku - 3 / 10 amaqoqo oku - 3 / 10 amaqoqo oku - 3 / 2 amaqoqo oku - 3 Okwenziwa abafundi kuzo zombili izibonelo ukusebenzisa ukuhlukanisa ngokuphindaphinda 'uhlakaza'. Njengoba ukuphindaphinda 'ukwakha' izinombolo, ukuhlukanisa kungabonwa njengoku 'hlakaza' izinombolo'. Ngalendlela ukuqonda ukuhlukanisa kuqinisa ukuphambana nokuphindaphinda. Abafundi bangasebenzisa ukuhlukanisa ngokuphindaphinda ngokuhlakaza,babhale phansi ngendlela efanayo nalokhu okukhonjiswe ngezansi.96 ÷ 3 = □  96 ÷ 3 = 32 **Ukusebenza ngezinsalela** Abafundi basebenzile ngezinsalela uma benza izinkinga zezibalo zamagama zokwenza amaqoqo nokuhlukanisa. Kubalulekile ukuthi banikwe imisho yezinombolo zokuhlukanisa (esimweni esikhululekile) lokho kuvumela izinsalela. Isibonelo: Chazela abafundi ukuthi: Uma bazi ukuthi 28 ÷ 7 = 4. Bangathini ngalokhu **29** ÷ 7 = 4 be? Kulindeleke ukuthi abafundi babhale phansi izimpendulo zabo ngalendlela: 29 ÷ 7 = 4 insalela 1. Sifuna abafundi bakwazi ukusho ukuthi amaphi amaphuzu lokuhlukanisa abawaziyo; Isib. ngiyazi 25 ÷ 5 = 5 ngakho ke 26 ÷ 5 = 5 insalela 1	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.16 **Izibalo Zekhanda**	**Ulwazi Lwezinombolo: Uhla kufinyelela ku 999** • Hlela iqoqo lezinombolo ezikhethiwe ozinikeziwe. • Qhathanisa izinombolo kufike ema-999 usho okuningi noma okumbalwa • Yazi ukuthi iyiphi inombolo engaphezu ngoku-1 noma okumbalwa ngokukodwa. • Yazi ukuthi iyiphi inombolo engaphezu ngoku-2 noma okumbalwa ngokubili • Yazi ukuthi iyiphi inombolo engaphezu ngoku-3 noma okumbalwa ngokuthathui • Yazi ukuthi iyiphi inombolo engaphezu ngoku-4 noma okumbalwa ngokunei • Yazi ukuthi iyiphi inombolo engaphezu ngoku-5 noma okumbalwa ngokuhlanu • Yazi ukuthi iyiphi inombolo engaphezu ngokuyi-10 noma okumbalwa ngokuyi-10	**Ulwazi Lwezinombolo: Uhla kufinyelela ku 700** • Hlela iqoqo lezinombolo ezikhethiwe ozinikeziwe. • Qhathanisa izinombolo kufike ema-200 usho okuningi noma okumbalwa • Yazi ukuthi iyiphi inombolo engaphezu ngoku-1 noma okumbalwa ngokukodwa. • Yazi ukuthi iyiphi inombolo engaphezu ngoku-2 noma okumbalwa ngokubili • Yazi ukuthi iyiphi inombolo engaphezu ngoku-3 noma okumbalwa ngokuthathui • Yazi ukuthi iyiphi inombolo engaphezu ngoku-4 noma okumbalwa ngokunei • Yazi ukuthi iyiphi inombolo engaphezu ngoku-5 noma okumbalwa ngokuhlanu • Yazi ukuthi iyiphi inombolo engaphezu ngokuyi-10 noma okumbalwa ngokuyi-10	**Izibolo zekhanda** Bheka amanothi weThemu 2, kepha sebenzisa uhla lwezinombolo oluphezulu olubekelwe iThemu 3.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.16 **Izibalo Zekhanda**	**Khumbula ngokushesha:** • Amaqiniso ngokuhlanganisa nokususa kufike ema-20 • Hlanganisa noma ususe ukuphindaphinda ngamashumi kusuka koku-0 kufike e-100 • Amaqiniso okuphindaphinda nokususa woku: • Ithebula lokuphindaphinda kabili kufike- 2 x 10 • Ithebula lokuphindaphinda ngamashumi kufike- 10 x 10 **Amasu okubala** Sebenzisa lamasu alandelayo okubala: • Beka inombolo enkulu kuqala ukuze ubale uqhubeka noma ubale uhlehla • Umugqa wezinombolo • Ukuhlanganisa kabili nokuhlukanisa kabili ngokulingana • Ukwakha nokuhlakaza	**Khumbula ngokushesha:** • Khumbula amaqiniso okuhlanganisa nokususa kufike- 20 • hlanganisa noma ususe okuphindaphindwa nge-10 kusuka koku-0 kufike e-100 **Amasu okubala ngekhanda** Sebenzisa lamasu alandelayo okubala: • Beka inombolo enkulu kuqala ukuze ubale uqhubeka noma ubale uhlehla • Umugqa wezinombolo • Ukuhlanganisa kabili nokuhlukanisa kabili ngokulingana • Ukwakha nokuhlakaza • Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa • Sebenzisa ubudlelwano phakathi kokuphindaphinda nokuhlukanisa		

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-3	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
1.16 **Izibalo Zekhanda**	• Sebenzisa ubudlelwano phakathi kokuhlanganisa nokususa • Sebenzisa ubudlelwano phakathi kokuphindaphinda nokuhlukanisa			
1.17 **Amaqhezu ajwayelekile**	• Sebenzisa ubuye unike amagama amaqhezu ezimweni ezijwayelekile njengo: uhhafu, ikota, okukodwa kokuthathu, okukodwa kokuyisithupha, nokukodwa kokuhlanu • Bona amaqhezu asemidwebeni • Baqala ukubona ukuthi ohhafu ababili noma okuthathu kokuthathu kwenza okuphelele kanye nokuthi uhhafu owodwa kanye namakota amabili kuyalingana. • Bhala amaqhezu njenge okukodwa kokubili, okubili kokuthathu		kuleThemu abafundi baqhubeka noku: • Funda amagama ezingxenye zamaqhezu; • Sebenzisa amagama ezimweni ezihlukene; • Khomba ingxenye yeqhezut; • Baqala ukuqonda ubungakho beqhezu. • Ukuthola amaqhezu ezinto; • Bafunda ngamaqhezu alinganayo kanye • Nokuqhathanisa amaqhezu. KuleThemu abafundi bangaqala ukubala izingxenye zamaqhezu bafunde namagama amasha amaqhezu. Ukubala izingxenye zamaqhezu kuvumela abafundi ukubona izingxenye eziphindaphindayo kubanike ulimi lweqhezu elixubile kanye neqhezu mbumbulu. izindilinga zamaqhezu kufanele zisetshenziswe kulomqondo. Gqugquzela abafundi ukubala njenga bezobala izinto eziqoqiwe Isib.okukodwa kokune, okubili kokune, okuthathu kokune, okune kokune, okuhlanu kokune... ungacela abafundi benze okukodwa okuphelele besebenzisa okune kokune ubabuze: “uma sinokuhlanu kokune, ingabe loko kungaphezu kokukodwa okuphelele, kungaphansi kokokodwa okuphelele, noma kuyafana nokukodwa okuphelele?”Thatha lelithuba ukwendlalela amaqhezu axubile ngokubuza: “thatha okuthathu kokuyisikhombisa.kungaki okuphelele ongakwenza? Zingaki izingcezu ezisele?” sifuna abafundi bathi kuno: “kubili okuphelele kanye nokukodwa kokuthathu okusele.” Loluhlobo lomsebenzi lukhuthaza: • Ukuqonda inombolo yohhafu kokuphelele • Izindlela ezihlukile zokukhuluma ngezinombolo eziphindaphindiwengohhafu.	

IBANGA LESI-3 ITHEMU 3 2. AMAPHETHINI, UBUDLELWANE NE - ALJEBHRA				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
2.1 **Amaphethini ejiyometri**	**Kopisha, uqhubezele uchaze** Kopisha, qhubezela ubuye uchaze ngamagama • Amaphethini alula enziwe ngezinto eziphathekayo;abuye • Amaphethini alula enziwe ngokudweba imigqa, izimo noma izinto **Qala uchaze amaphethini akho** Qala amaphethini akho ejiyometri • Ngezinto eziphathekayo • Ngokudweba imigqa, izimo noma izinto **Amaphethini atholakala lapho siphila khona** Bona, chaza ngamagama ubuye ukopishe amaphethini ejiyometri • Ngokwemvelo • Kwimpilo yesimanje yansukuzonke • Amasiko angamagugu	**Amaphethini atholakala lapho siphila khona** Bona, chaza ngamagama ubuye ukopishe amaphethini ejiyometri • Ngokwemvelo • Kwimpilo yesimanje yansukuzonke • Amasiko angamagugu	Qhubeka unikeze abafundi uhla lwamaphethini afanayo njengaeThemu yoku - 1, kodwa faka zonke izimo ezintsha nezinto kwiphethini njengoba zenziwe kwisimo nendawo. Bheka amanothi amaphethini eThemu loku - 1 kanye namanothi esimo nendawo aeThemu yesi - 2. Vumela abafundi ukuthi bakopishe kuqala, bese beqhubezela ekugcineni bachaze amaphethini. Kulindekeukuthi babe sebekwazi ukuchaza amaphethini ngaphandle kokusizwa. Qhubeka ugxile ekuthuthkiseni uLimi abaludingayo ukuchaza amaphethini.	1 isifundo 3 isi-fundos

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
2.2 **Amaphethini ezinombolo**	**Kopisha, uqhubezele, uchaze** Kopisha, uqhubezele ubuye uchaze uhla olulula lwezinombolo kufinyelele okungenani ema - 200. **Qamba awakho amaphethini** Qamba awakho amaphethini ezinombolo.	**Kopisha, uqhubezele, uchaze** Kopisha, uqhubezele uchaze ukulandelana kwezinombolo olulula kufinyelele okungenani e - 180. Ukulandelana kufanele kukhombise ukubala uya emuva naphambili nga: • Ngakunye kusukela kunoma iyiphi inombolo phakathi kwe - 0 nama - 750 • Ngokuyishumi kusukela kunoma iyiphi inombolo phakathi kwe - 0 nama - 750 • Ngakuhlanu kusukela kunoma iyiphi inombolo phakathi kwe - 0 kya ema - 750 • Ngakubili kusukela kunoma iyiphi inombolo phakathi kwe - 0 kuya ema - 750 • Ngakuthathu kusukela kunoma iyiphi inombolo phakathi kwe - nama - 750 • Ngakune kusukela kunoma iyiphi inombolo eyikuphindaphinda ngakune phakathi kwe - 0 kufinyelela ema - 750	Bheka amanothi eThemu yoku - 1 Qhubezela ukulandelana ukuze ufake lokhu: • Ngokukodwa kusuela kunoma iyiphi inombolo phakathi kwe - 0 nama - 750 • Ngamashumi kusukela kunoma iyiphi inombolo phakathi kwe - 0 nama - 750 • Ngakuhlanu kusukela kunoma iyiphi inomnolo phakathi kwe - 0 nama - 750 • Ngakubili kusukela kunoma iyiphi inombolo phakathi kwe - 0 nama - 750 • Ngamakhulu kusukela kunoma iyiphi inombolo eyisiphindaphindi se - 100 kufinyelele okungenani e - 1 000 • Ngamashumi ama - 50 okungenani kufinyelele e - 1 000 • Ngamashumi angama - 25s kusukela kunoma iyiphi inombolo eyisiphindaphindi sama - 25 kufinyelele okunganani e - 1 000 • Ngamashumi ama - 20s kusukela ema - 20s kufinyelele okungenani e - 1 000 • Ngakuthathu kusukela kunoma iyiphi inombolo phakathi kwe - 0 kufinyelela okunganai ema - 750 • Ngakune kusukela kunoma iyiphi inombolo kufinyelela okunganani ema - 750 Sebenzisa izinto, izithombe, amatafula kanye imidwebo exhumayo ukweseka abafundi uma besuka ekubaleni ngokweqa nokulandelanisa kufinyelele ekuphindaphindeni ngo: 10, 5, 2, 4, 3. Siza abafundi ngokusebenzisa amaphethini abawaziyo okuyisisekelo ekwenzeni ngokuphindelela nasekufundeni amanye amaphethini. Isib. • Landelanisa ngakubili ukwenza isisekelo ngokulandelana ngama - 20s	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
		• Ngamashumi ama - 20s,25s, 50s, nge - 100s kuze ku-finyelele okunganai e - 1000 **Qamba uchaze amaphethini akho** Qamba uchaze amaphethini akho ezinombolo.		

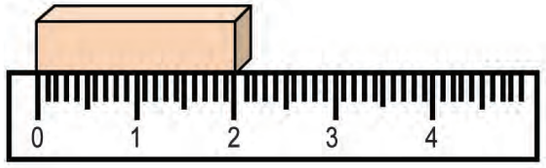
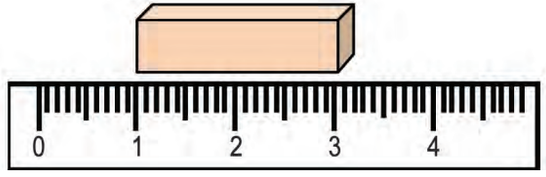
ITHEMU YESI-3 YEBANGA LESI-3 3. INDAWO NESIMO (IJIYOMETRI)				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
3.1 **Isikhundla, ukubuka nokubonisa**	**Isikhandla nokubonisa** • Linganisa imibono eyahlukene yezinto zansukuzonke ezifanayo • Shono izinto zansukuzonke uma usukhonjiswe icala elingajwayele ukubonakala • Funda, uhumushe ubuye udwebe amabalazwe angahlelekile, noma ukubukeka kwezinto. • Thola izinto kumabalazwe **Isikhundla nezinkombandlela** • Landela izinkombandlela ukuze ukwazi ukuhambahamba ekilasini • Nikeza izinkombandlela zekilasi nesikole • Landela izinkombandlela kusukela endaweni eyodwa kuya kwenye ngebalazwe elingahleliwe	**Isikhundla nokubonisa** • Funda, uhumushe ubuye udwebe amabalazwe angahlelekile noma ukubukeaka kwezinto • Thola izinto kumabalazwe **Isikhundla nezinkombandlela** Landela izinkombandlela kusukela endaweni eyodwa kuya kwenye ngebalazwe elingahleliwe	**Yini entsha eBangeni lesi - 3** • Amabalazwe, amapulani, nemibono ephezulu yezinto • Ukuthola izinto kumabalazwe • Ukulandela izinkombandleala kwibalazwe • Dweba amabalazwe angahlelkile, amapulani noma nemibono yezinto eziqoqekile **Ukufunda, ukuhunyushwa kwamabalazwe** Amabalazwe indlela esezingeni eliphezulu lokubuka indawo. EBangeni lesi - 3, abafundi basebenza kuphela ngamabalazwe angahleliwe, lokhu akufaki amabalazwe asetshenziswa emigaqweni noma amabalazwe ezifundo zezwe. Ingasiza abafundi ukuqala izinhlelo noma ukubukeka kwendawo encane, isib. Ithileyi elinezinto noma uhlaka lwepulani lwekilasi, ngaphambi kokubuka amabalazwe ezindawo ezinkulu. NgeThemu yesi - 2 qondanisa ukubukeka kwezinto uzibuka ngaphezulu. Uma ubuka into uyiqhamukela ngaphezulu iba nokutsheka kance. Abantwana babona icala elitshekile lomhlaba esikhathini esiningi kunalelo lokuwubuka ngaphezulu. Ingabasiza abafundi ukuthi baqale ngokuqondanisa lezondawo abzibona zitshekile. Uma izindlela ezimbili zokubuka zinikeziwe, abafundi bangaqondanisa lokho abakubonayo nalokho okubonwa ngabanye ngakwelinye icala.. Qala usize abafundi ukuthi baqonde amabalazwe namapulani, bese beqoqa izinto ezindaweni ezikwibalazwe. isib.“thola iklikini, yini esduze kwayo?” Uma abafundi sebekwazi ukuthola izindawo ezahlukene kwibalazwe, qala ubanikeze izinkombandlela kusukela endweni eyodwa kuya kwenye kwibalazwe. **Dweba ukubukeka kwezinto eziqoqiwe uzibuka ngaphezulu namabalazwe angahlelkile** Kulula kubafundi ukudweba indlela izinto ezibukeka ngayo uma uzibuka ngaphezulu kunokudweba ibalazwe ngengqondo noma belisusela engqondweni. **Indlela elula yokudweba** ukubukeka kwento uyibuka ngaphezulu ukwenza abafundi ukuthi babuke izinto eziqoqene ndawonye, isib. Izinto ezisetafuleni likathisha, noma izinto ezikwithileyi elibekwe phansi. Abafundi bangaqhubeka ngokudweba amapulani angahlelekile kanye namabalazwe ezindawo ezincane. isib.ikilasi.	3 izifundo

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
3.2 **Izinto ezinhlang-othintathu**	**Uhla lwezinto** Bona usho izinto ezinhlangothintathu ekilasini nasezithombeni • Okunesimo esisabhola (spheres) • Okumise okwebhokisi (prisms) • Isilinda • Iphiramidi • Amakhoni **Izimpawu zezinto** Chaza, hlela, uqhathanise izinto ezinhlangothintathu: • Izimo zezinto ezinhlangothimbili zenza ubuso bezinto ezinhlangothi ntathu • Ubuso noma ingaphezulu eliyisicaba **Imisebenzi okugxilwa kuyo** Buka wakhe izinto onikezwe zona ezinhlangothintathu usebenzisa izinto eziphathekayo ezifana nezimo ezinhlangothimbili, ubumba/udongo, ezinye izinto zejometri ezinhlangaothintathu.	**Uhla lwezinto** Bona usho izinto ezinhlangothintathu ekilasini nasezithombeni • Okunesimo esisabhola (spheres) • Okumise okwebhokisi (prisms) • Isilinda • Iphiramidi • Amakhoni **Izimpawu zezinto** Chaza, hlela, uqhathanise izinto ezinhlangothintathu: • Izimo zezinto ezinhlangothimbili zenza ubuso bezinto ezinhlangothi ntathu • Ubuso noma ingaphezulu eliyisicaba **Imisebenzi okugxilwa kuyo** Buka wakhe izinto onikezwe zona ezinhlangothintathu usebenzisa izinto eziphathekayo ezifana nezimo ezinhlangothimbili, ubumba/udongo, ezinye izinto zejometri ezinhlangaothintathu	**Izincomo zokugxilwa kuhko eThemu ye - 3** • Abafundi bangagxila ezintweni ezintsha eBangeni lesi - 3, okuyiphiramidi, amakhoni. • Abafundi bakha izinto besebenzisa izitro noma izinto zokugeza amaphayiphi noma izinti zokuvungula noma ishubhu elenziwe ngephepha. Yethula amakhoni namaphiramidi kubafundi **Kugxilwa kwizimpawu zezinto ezinhlangothintathu: ubuso obuyisicaba, izimo eziyisicaba** • Ubuso obuyisicaba NgeThemu yesi - 2 • Abafundi bagxila ekutheni babheke ukuthi izinto zinobuso obuyisicaba. • Abafundi bachaza izimo zobuso obuyisicaba ngokuthi basho ukuthi kuyindilinga, isikwele, noma unxande. Abafundi bayaqhubeka bakwenze lokhu ngeThemu yesi - 3, kodwa manje sebebheka nephiramidi kanye nekhoni. • Ukwakhiwa kwezinto ngazodwa ezinhlangothintathu Abafundi basebenzisa izinti zokuvungula, amashubhu amaphepha agingqiwe, izinto zokuhlamba amapayipi ukwenza iphiramidi. Kulokhu abafundi bagxila onqenqemeni lwephiramidi. Abafundi akulindelekile ukuthi babale inani lonqenqema noma amakhoni (lokhu kwenziwa eBangeni lesi - 6). **Ukubona nokusho izinto** Abafundi kufanele banikezwe uhla lwezinto abazosebenza ngazo: • Izimo ezisambulunga njenge: bhola, omabuli, amawolintshi, njll; • Izimo eziyiprizimu, njengamabhuloki, izitini, amabhokisi ezinto ezahlukene,, nokunye; • Izimo eziyisilinda, kufaka ezinde neziwumncingo, isib. izingcezu ezimise okwamaphayiphi, umbhobho wephepha lasendlini yangasese, isilinda ebanzi nokunye. • Izimo ezingamakhoni;kanye • Nezimo eziyiphiramidi	5 izifundo

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
3.2 **Izinto ezinhlang-othintathu**			Abafundi kufanele bathole babuye bakhombise izinto ezise okwebhola (sphere), noma ezimise okwebhokisi (prisms) noma ezimise okwesilinda (cylinder), ezimise okwe phiramidi noma ikhoni. • Uma benikezwe izinto eziqoqiwe; • Ekilasini, Isib. Lesitini simise okwebhokisi noma leliwolintshi limise okwebhola. Ngesikhathi sokufunda ngokuzimela abafundi bangenza amabhola kanye nama-silinda namabhokisi (prisms) **Imisebenzi ebhalwayo** Nakuba imisebenzi eminingi yezimo ezinxantathu yenziwa ngokubhala, um-sebenzi uhlanganiswa ngokwenza imisebenzi ebhalwayo. EBangeni lesi - 3 kufanele kugxilwe ekushiweni kwamagama ezinto kubuye kukhulunywe ngobuso bazo. Akulindelekile ukuthi abafundi babale noma bazi inani lezikwele, unxande, unxande noma into enobuso obuyindilinga, ungqengqema lwento. **ULimi** Ukukwazi ukusebenzisa uLimi ukukhuluma nezinto ezinezimo ezinhlangothin-tathu: Ubuso, isicaba, ibhokisi, isilinda, ikhoni	
3.3 **Izimo ezinhlang-othimbili**	**Uhla lwezimo** • indilinga • unxantathu • isikwele • unxande **Izimpawu zezimo** Chaza, hlela uqhananise izimo ezinhlangothimbili (2-D) ngokwe: • simo • amacala aqondile • amacala awulawondi **Dweba izimo** • indilinga • unxantathu • isikwele • unxande	**Uhla lwezimo** • indilinga • unxantathu • isikwele • unxande **Izimpawu zezimo** Chaza, hlela uqhananise izimo ezinhlangothimbili (2-D) ngokwe: • simo • amacala aqondile • amacala awulawondi **Dweba izimo** • indilinga • unxantathu • isikwele • unxande	Bheka amanothi eThemu yoku - 1. Abafundi kufanele bagxile kulokho abagxile kukho, kodwa futhi benzeimisebenzi eyahlukene. Abafundi basebenza ngezindilinga nezikwele ezinobungako obahlukene kanye nonxantathu nonxande onobungako obuhlukene. Abafundi bazihlela ngokwama-cala azo ukuthi ayindilinga noma aqondile. Abafundi bahlela baqoqelendawonye izimo ngokonxantathu, izikwele, unxande noma indilinga. Umsebenzi uhlanganiswa ngemisebenzi ebhalwayo okufanele ifake imidwebo yonke edingekayo kwimo.	2 izifundo

ITHEMU YESI- 3 YEBANGA LESI-3 4. ISILINGANISO				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
4.1 **Isikhathi**	**Ukusho isikhathi** • funda izinsuku kwikhalenda • faka izinsuku zokuzalwa, imigubho yezenkolo, izehlakalo eziwumlando, izehlakalo zesikole kwikhalenda • shono isikhathi esingamahora ayi - 12 ngama: - hora - isigamu sehora - ikota lehora - amaminithi Ewashini lezinti nelezinombolo nezinye izinsimbi ezikhombisa isikhathi isib. umakhalekhukhwini **Bala ubude besikhathi nokuhamba kwaso** Sebenzisa ikhalenda ukubala nokuchaza ubude besikhathi ngezinsuku noma ngamasonto noma ngezinyanga kufaka: • ukuguqula phakathi kwezinsuku namasonto • ukuguqula phakathi kwamasonto nezinyanga	**Ukusho isikhathi** • funda izinsuku kwikhalenda • faka izinsuku zokuzalwa, imigubho yezenkolo, izehlakalo eziwumlando, izehlakalo zesikole kwikhalenda • shono isikhathi esingamahora ayi - 12 ngama: - hora - isigamu sehora - ikota lehora - amaminithi Ewashini lezinti nelezinombolo nezinye izinsimbi ezikhombisa isikhathi isib. umakhalekhukhwini **Bala ubude besikhathi nokuhamba kwaso** Sebenzisa ikhalenda ukubala nokuchaza ubude besikhathi ngezinsuku noma ngamasonto noma ngezinyanga kufaka: • ukuguqula phakathi kwezinsuku namasonto • ukuguqula phakathi kwamasonto nezinyanga	Abafundi bayaqhubeka ukwenza ngokuphindelela bekhuluma ngesikhathi nokulandelana kwaso. Ngesikhathi sokufunda kwekilasi lonke nangesikhathi samaqoqo okugxilwa kulo, abafundi bayaqhubeka bakhulume ngezinsuku zesonto, zezinyanga zonyaka nosuku abakulona, nezinsuku ezizayo nezangaphambili. Abafundi bayaqhubeka bafake lezigameko ezilandelayo kwikhalenda: • izinsuku zokuzalwa; • imigubho yezenkolo; • izehlakalo eziwumlando; • izehlakalo zesikole; • amaholidi qhubeka ugqugquzele abafundi ukuthi bakhulume ngesikhathi njalo nansukuzonke • ngamahora nangamaminithi ewashini lezinombolo; • ngamahora, ngesigamu sehora nangekota lehora besbenzisa iwashi lezinti isib. abafundi bangacelwa ukuthi basho isikhathi sokuqala kwesikole, isikhathi sekhefu nesokuya ekhaya, noma uma beshintsha izifundo. Khetha isikhathi lapho iwashi lisho isikhathi siwungqo ezimpondweni noma ligamenxe noma kuyikota lehora. Kuyasiza ukuba newashi elikhulu elisebenzayo ekilasini ukuze abafundi bakwazi ukubheka kulona. Abafundi bangabuye benze umfanekiso wewashi. Ungabe usubacela ukuti bakhombise izikhathi ezahlukene ezifaka ukubala ewashini. Isib. “Ngikhombise ihora leshumi. Ngabe isikhathi besiyimizuzu eyishumi nanhlanu ngaphambi kwehora leshumi10?” See notes for Term 1. Ngesikhathi somsebenzi wokuzimela, abafundi bayaqhubeka benze imisebenzi ehambelana nokushiwo kwesikhathi: • ngamahora,ngesigamu samahora nangekota lehora kusetshenziswa iwashi lezinti • ngamahora nangamaminithi kusetshenziswa iwashi lezinombolo Abafundi bangabala ngamasonto noma ngezinsuku uma benayo noma benikezwe ikhalenda noma ingxenye yekhalenda ukuthi bayisebenzise. Isib. Ukuthola izinsuku nokubala umehluko phakathi kwezinsuku nesikhathi.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.1 **Isikhathi**	sebenzisa amawashi ukubala ubude besikhathi ngamahora noma ngesigamu sehora nekota lehora	sebenzisa amawashi ukubala ubude besikhathi ngamahora noma ngesigamu sehora nekota lehora	**Ukufunda iwashi lezinti ngamaminithi** Chitha okungenani izifundo ezintathu ugxile ekufundweni kwamakhono adingekayo okufunda iwashi lezinti • Khumbuza abafundi ukuthi kusho ukuthini ukuthi ekuseni nantambama (a.m. and p.m.) • Khumbuza abafundi ukuthi amaminithi angama - 60 ngehora, ngakhoke amaminithi angama - 30 anguhhafu wehora, nokuthi amaminithi ayi - 15 ayikota lehora. Abafundi babala ngakuhlanu uthisha ekhomba ewashini lezinti. • Chaza ukubalwa kwesikhathi uma kusayoshaya ihora nokubalwa kwesikhathi selishayile ihora (“past” and “to”) • Nikeza abafundi isikhathi sokwenza bephindelela isikhathi besebenzisa iwashi lezinti. Abafundi abanikeze isikhathi njalo ngosuku kuze kuphele unyaka. Abafundi bangahlola isikhathi basebenzise iwashi lezinti ukubona ukuthi banikeze isikhathi esifanele na uma besibheka ewashini lezinti. Abafundi benza umfanekiso wamawashi abangawasebenzisa ukusho isikhathi babuye babale umehluko phakathi kwesikhathi.	Izifundo eziyi - 6
4.2 **Ubude**	**Ukulinganisa okungahlelekile** • Hlawumbisela, linganisa, qhathanisa, hlela ubhale phansi ubude usebenzise isikali esingenasilinganiso, isib: amagxthu enziwe ngezandla, amagxathu, ubude bepensela, njll. • Chaza ubude bezinto ngokuzibala usebenzisa isikali esingenasilinganiso	**Ukwethulwa kokulinganisa okuhlelekile** • Sela, linganisa, qhathanisa, hlela ubhale phansi usebenzise amamitha (kungaba izinduku zamamitha noma ubude bentanmbo) njengobude beyunithi obejwayelekile. • Hlawumbisela ulinganise ngamasentimitha usebenzisa irula.	**Yini eyahlukile eThemu yesi - 2?** ngeThemu yesi - 2 abafundi bagxila kulokhu: • Ukulinganisa ngokungahlelekile kusetshenziswa isikali esingenasilinganiso sobude • Ukulinganisa ngamaitha. NgeThemu yesi - 3 abafundi baqala ukulinganisa ngamasentimitha besebenzisa irula. Lokhu kuzoba ukulinganisa kokuqala kesetshenziswa into ethile engasetshenziswa abafundi uma befunda ngaphandle kokulinganisa imigqa eya ngokukhula. **Ukuhlawumbisela, ukulinganisa, ukuqhathanisa, nokubhala phansi ubude, ukuphakama nobubanzi kusetshenziswa amamitha.** • Abafundi kufanele bahlanganise ukuqonda kwabo kobude obuyimitha elilodwa besebenzisa ubude bemitha ukukala. Bheka amanothi eThemu yesi - 2. **Ukuhlawumbisela, ukulinganisa, ukuqhathanisa, nokubhala phansi ubude, ukuphakama nobubanzi ngamasentimitha kusetshenziswa irula** • Sebenzisa irula Khombisa abafundi ukuthi kuqalwa kanjani ukukala kusukela e - 0.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.2 **Ubude**	• Sebenzisa uLimi ukukhuluma ngokuqhathanisa, isib. okude kakhulu, okufishane kakhulu, okubanzi kakhulu, okuwumncingo kakhulu. **Ukwethulwa kokulinganisa okuhlelekile** • Sela, linganisa, qhathanisa, hlela ubhale phansi usebenzise amamitha (kungaba izinduku zamamitha noma ubude bentanmbo) njengobude beyunithi obejwayelekile. • Hlawumbisela ulinganise ngamasentimitha usebenzisa irula. Akukho ukuguquka okwenzekalayo phakathi kwamamitha namasentimitha. Okudingakalayo.	Akukho ukuguquka okwenzekalayo phakathi kwamamitha namasentimitha. Okudingakalayo	Uma abafundi besebenzise amayunithi bahlele lapho kuqala khona izinto njengeba zisetshenziswe ekukaleni kokuqalwa kwezinto. Uma ulinganisa ngamasentimitha, awuhleli lapho kuqala khona irula kanye nokuqala lapho kuqala khona izinto ezizokalwa. Uhlela izinto esezikaliwe kusukela ku 0 kwirula.  Irabha iwu - 2cm ubude Kungalinganiswa lapho kuqala khona into elinganiswayo nenye inombolo ekwirula bese kususwa inombolo eskuqaleni kwento ngasekugcineni kwento.  Irabha iwu (3 cm - 1 cm) = 2 cm ubude Ngaphandle uma abafundi bebuza ngalokhu, noma bazitholele bona, kungayekelelwa iBanga le - 4. • Ukuhlawumbisela ngamasentimitha Abafundi kufanele bathole izinto eziyisentimitha elilodwa ngqo ubude. Mhlawumbe umunwe wabo ungaba yisentimitha elilodwa. Lokhu kungasetshenziswa njengokuhlawumbisela ubude, ububanzi, ukuphakama ngamasentimitha. Uma abfundi sebenolwazi ngokulinganisa ngamasentimitha, kufanele bahlwumbisele ngaphambi kokulinganisa. • Imigqa, imidwebo nezinto Yenza abafundi baqale ngokulinganisa ngemigqa. Kulula ISILINGANISO ubude bemigqa, ukuphakama, noma ububanzi bezinto eziphathekayo kusetshenziswa irula. EBangeni le - 4, abafundi balinganisa ngamasentimitha nangamamilimitha. EBangeni le - 3 akulindelekile ukuthi basebenzise amamilimitha.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.2 **Ubude**			• Qhathanisa ukulinganisa ngamasentimitha. Abafundi kufanele baqhathanise ubude, ububanzi nokuphakama kwezinto ezilinganisiwe ngamasentimitha. • Ukubhala phansi isilinganiso Nakuba ISILINGANISO kuyikhono, abafundi kufanele babhale phansi ISILINGANISO (ngokukala okunesilinganiso nokungenaso) ngasosonke isikhathi. **Ukulinganisa ubude njengesimo esejwayelekile ukuxazulula izinkinga kanye nokubala** Ngesikhathi esinikezwe izinombolo, ukusebenza, nobudlelwano bezinombolo abafundi bangaxazulula izinkinga ezisebenzisa isimo esi: • Ukulinganisa okungahlelekile kobude; • Ukulinganisa ubude ngamamitha; • Ukulinganisa ubude ngamasentimitha. Bheka uhla lwezinombolo lweThemu, kanye nohla lwezinkinga ezifanele iThemu. Abafundi abalindelekile ukuthi: • Bazi ukuthi u - 100 cm = 1 m; • Ukwenza izinguquko eziphakathi kwamasentimitha namamitha; • Ukufunda ubude ngamamilimitha (lokhu kwenziwa eBangeni le - 4); • Ukwazi ukuthi u - 10 mm = 1 cm; noma • Ukwenza izinguquko phakathi kwamasentimitha namamilimitha. Ukubala ngamasentimitha kungakhethwa ukuze bangeqeli ngaphezulu kwama - 100 cm.	

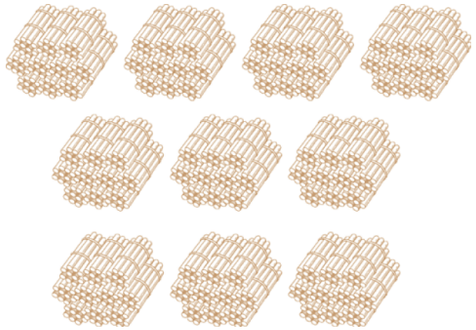
IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.3 **Isisindo**	**Isilinganiso esingahlelekile** • Hlawumbisela, uqhathanise, ulinganise, hlela ubhale phansi isisindo, usebenzisa isikali esingenasilinganiso nesikali sokuzimelela isib. Amabhuloki, izitini, nokunye. • Sebenzisa uLimi ukukhuluma ngokuqhathanisa, isib. kulula, kuyasinda, kulula kakhulu, kusinda kakhulu. **Ukwethulwa kokulinganisa okuhlelekile** • Qhathanis, hlela, ubhale phansi isisindo sezinto zokuthengisa ezihleliwe zabhalwa nesisindo sazo ngokwamakhilogramu, isib. ikhilogramu lerayisi, ikhilogramu likafulawa, noma ngamagremu, isib. amagremu angama - 500 g oswayi. • Balinganisa isisindo sabo ngama khilogramu besebnzisa isikali sokuzimelela sasendlini yokugezela. Azikho izinguquko eziphakathi kwamamililitha namalitha adingekayo.		Ngesikhathi semisebenzi yokuzimela abafundi bangenza lokhu: • Hlawumbisela, linganisa, qhathanisa, ubhale phansi isisndo sezinto esebenzisa isilinganiso sokuzimelela ngamayunithi angahlelekile ukukala. • baqhathanisa, bahlele, babhale phansi abakutholile - igilosa nesisindo ngokwamakhilogramu - igilosa nesisindo ngokwamagremu bona amanothi eThe - 2 **ukulinganisa ubude njengesimo esejwayelekile ukuxazulula izinkinga kanye nokubala** Ngesikhathi esinikezwe izinombolo, ukusebenza, nobudlelwano bezinombolo abafundi bangaxazulula izinkinga ezisebenzisa isimo esi: • ukulinganisa ngokwesisindo; • isindo ngokwamakhilogramu; • isisndo ngokwamagremu Bheka uhla lwezinombolo lweThemu, kanye nohla lwezinkinga ezifanele iThemu.	

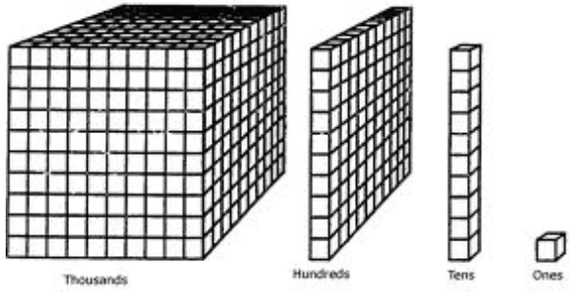
IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.4 **Umthamo**	**Ukulingasanisa okungahlelekile** • Hlawumbisela ubuye ulinganise, qhathanisa ubye uhlele umthamo wezitsha (gcwalisa umthamo ongathathwa izitsha) ngokusebenzisa isikali esingenasilinganiso isib. izinkezo nezinkomishi • Chaza umthamo wezitsha ngokubala ubuye usho ukuthi mangaki amayunithi angahlelekile agcwalise isitsha, isib. ibhodlela linomthamo wezinkomishi e - 4. **Ukwethulwa kokulinganisa okuhlelekile** • Hlawumbisela, linganisa, qhathanisa hlela ubhale phansi umthamo wezinto ngokwamalitha, isigamu selitha, ikota yelitha		Ngesikhathi semisebenzi yokuzimela abafundi bayaqhubeka ngalokhu: Hlawumbisela ubye ulinganise, qhathanisa, hlela, bhala phansi umthamo wezitsha usebenzisa isilinganisi esingenasilinganiso. Uma ulandela uhla lwendlela yokwenza into ethile, kufaka ukubhaka, yilona lolohlu oluyisimo esejwayelekile okufanele ukuthi abafundi balwenze ngokuphindelela. Khetha uhla lokwenza izinto olunezithako olunezikali ngezinkomishi, amathisipuni noma amayunithi angahlelekile. • Qhathanisa uhlele umthamo wohla lwamabhodlela negilosa lapho umthamo ukhonjisiwe ngaphandle kwephakethe. • Sebenzisa ilitha elilodwa lebhodlela noma ilitha likajeke ukuhlawumbisela nokulinganisa, ukuqhathanisa, ukuhlela nokubhala phansi umthamo wezitsha ngokwamalitha. • Sebenzisa izitsha ezimakiwe ngokwamalitha. Isib. 200 ml, 330 ml, 500 ml, 750 ml, noma 250 ml kulinganiswa izinkomishi, noma 5 ml izipuni zokukala, noma ujeke onemigqa yamamililitha emakiwe ngokomteliwuthathayo Bheka amanothi eThemu ye - 1. Abafundi kufanele banikezwe umsebenzi obhalwayo ukuhlanganisa lokhu okulandelayo, kufaka iukufundwa kwezithombe: • Zomkhiqizo onomthamo obhalwe ngamlitha ukuze kulandelane. • Izithombe zojeke ezinomthamo osendelene nelitha elilodwa noma amabili. • Okulindelekile ukuthi abafundi bafunda kuphela okusondelene nolayini wokulinganisa (gradation line). Bachaza umthamo wabo nokucishe, sondelene/duze, kungaphezulu kancane, kungaphansi kancane, inombolo eqondile (yamalitha) abawufunda kujeke. • Imikhiqizo nemithamo yakhona ebhalwe ngokwamamililitha ukuze ilandelane. • Izithombe zojeke lapho umthamo isondelene nomugqa wokulinganisa (gradation line) Okulindelekile ukuthi abafundi bafunda kuphela inombolo esondele emugqeni wokulinganisa	

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4.4 **Umthamo**	• Qhathanisa, uhlele ubhale phansi umthamo wezinto zokuthengisa eziqoqelwe ndawonye omthamo wazo ubhaliwe ngokwamalitha. Isib. amalitha amabili obisi, ilitha lesiphuzo esiqandayo, amalitha amahlanu kapende noma ngamamililitha, isib. 2 amalitha obisi, 5 amalitha esiphuzo esiqandayo, 750 amalitha kawoyela. • Yazi ukuthi inkomishi eyejwayelekile iwu - 250 amalmililitha • Yazi ukuthi ithisipuni iwu 5 amamililitha Azikho izinguquko eziphakathi kwamamililitha namalitha adingekayo.		**Umthamo wokulinganisa ngokwesimo esejwayelekile ukuxazulula izinkinga nokubala** Ngesikhathi esinikezwe izinombolo, ukusebenza, nobudlelwano bezinombolo abafundi bangaxazulula izinkinga ezisebenzisa isimo esi: • Ukulinganisa okungahlekile komthamo, isib. ugogo usebenzise izinkomishi ezimbili zobisi ukwenza ikhekhe. Uma engaphinda kabili uhla lwakhe lokubhaka uzodinga ubisi olungakanani? • Amalitha • Amamililitha Qaphela ukuthi uhla lwezinombolo olufanele lweThemu luyalandlelwa, kanye nohla lwenhlobo yezinkinga.	

IZIHLOKO	UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA	UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI
4.5 **Ubungako bangaphandle nobungako bangaphezulu bento ethile**	**Ubungako bangaphandle bento** • Phenya ubude bebanga obuzungeza izinto eziyizimo ezinhlangothintathu nezinhlangothimbili kusetshenziswa intambo. **Ubungako bangaphezulu** • Phenya ubungako bengaphezulu bendawo usebenzisa intambo.	**Ubungako bangaphandle bento** Phenya ubude bebanga obuzungeza izinto eziyizimo ezinhlangothintathu nezinhlangothimbili kusetshenziswa intambo	**Ukulinganisa okuzungeza izinto noma ukulinganisa ubungako bento bangaphandle kusha eBangeni lesi - 3.** Ubungako bangaphandle bento kulinganiswa ngokungahlelkile kuphela eBangeni le - 3 Nikeza abafundi isikhathi sokwenza ngokuphindelela kusetshenziswa intambo ISILINGANISO uzungeza izinto ezahlukene ezifana: nekhanda, ibhodlela (kufaka amabhodlela amade abukeka ewumncingo, namabhodlela amafishanekakhulu abukeka ebanzi) amathini, izinkomishi, amabhokisi, nokunye. Yenza ukuthi abafundi baqale ngokuhlawumbisela ukuthi yiziphi izinto ezinobungako bangaphandle obuthe xaxa babuye bahlole ngokuzimaka ngobude bebanga ngaphandle kwentambo babuye baziqhathanise. Abafundi bangalinganisa ubungako bangaphandle bento bezimo ezinhlangothimbili kusetshenziswa intambo. Abafundi bangenza ukulinganisa okungahlelkile kobungako bangaphandle usebenzisa amayunithi anesikali esingenasilinganiso esifana nezivalo zamabhodlela, amabhokisi kametshisi, nokunye.	1 isifundo

IBANGA LESI-3 ITHEMU YESI- 3 5. ULWAZI OLUQOKELELWE				
IZIHLOKO	**UMQONDO KANYE NAMAKHONO ADINGEKAYO UMA KUPHELA UNYAKA**	**UMQONDO NAMAKHONO OKUGXILWA KUKHO NGETHEMU YE-2**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI**
5.4 **Qoqa ubuye uhlele ulwazi**	**Qoqa ubuye uhlele ulwazi** • Qoqa ulwazi ngekilasi noma yesikole ukuphendula imibuzo ebuzwe nguthisha • Hlela ulwazi olunikezwe nguthisha noma incwadi. • Hlela ulwazi - uhla - amathalisi - amatafula	**Qoqa ubuye uhlele ulwazi** Qoqa ulwazi ngekilasi noma yesikole ukuphendula imibuzo ebuzwe nguthisha **Bhala okumele ulwazi** Bhala okumele ulwazi kwibha (bar) **Hlaziya ubuye uhumushe ulwazi** Phendula imibuzo ngolwazi olukwibha (bar)	Kwaphakanyiswa ukuthi ngeThemu yoku - 1 abafundi benza ibha grafu yekilasi, nokuthi ngeThemu ye - 2 bahlaziya amagrafu ezithombe namathebula anikeziwe. NgeThemu ye - 3 abafundi bangasebenza ngolwazi lonke (bheka amanothi eThemu yoku - 1) noma uqale ngolwazi olwethuliwe ohleni noma amathali noma amathebula babuye bahlele kabusha lokhu kwibha grafu. Kulula kubafundi ukuthi badwebe ibha grafu ngokusebenzisa amabhuloki amaphepha. Kuzodinga ukuthi ubakhumbuze abafundi ukuthi izimpawu ezibalulekile zebha grafu (bheka amanothi iThemu yoku - 1). Abafundi kufanele baphendule imibuzo ekwibha grafu; bheka iThemu yoku - 1 ukuze uthole izinhlobo zemibuzo ezifanele.	3 izifundo
5.5 **Bhala okumelele ulwazi**	**Bhala okumele ulwazi** Bhala okumele ulwazi • igrafu yezithombe • igrafu eyibha (bar graph)			
5.6 **Hlaziya ubuye uhumushe ulwazi**	**Hlaziya ubye uhumushe ulwazi** Phendula imibuzo ngolwazi olumelwe kulokhu: • igrafu yezithombe • igrafu eyibha (bar graph)			

ITHEMU YESI-4 YEBANGA LESI-3 1. IZINOMBOLO, IMISEBENZI NOBUDLELWANO BAZO				
IZIHLOKO	**IMIQONDO NAMAKHONO** **OKUDINGEKAYO NGOKUPHELA KONYAKA**	**IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1**	**AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI** **(ngokwesifundo esingangehora nemizuzu engu 24)**
1.1 **Izinto zokubala**	**Ukubala izinto eziphathekayo** Ukuqagela nokubala ngokuyiko ukufika okungenani1 000 lezinto ezisetshenziswa njalo. Isu lokuhlela ngokwamaqoqo lugqugquzeliwe		Ngasemaphethelweni alethemu abafundi kumele ukuba sebeke babona, baphatha, futhi benyakazise izinto ezi1 000. Kufanele babe nomqondo wobuningi obu 1 000. Isu lokuhleka ngokwezinyanda ligqugquzeliwe.  	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.1 **Izinto zokubala**			 Ngasemaphethellweni ethemu abafundi kumele bakwazi ukuphendula lelzinhlobo ezilandelayo zemibuzo kanye nemiyalelo: • Bala iziinto zokubala ngokamaqoqo/ izinyanda ezingakuhlanu,ngamashumi • Phinda uhllele ubale futhi. Ingabe usanesibalo esifanayo sezinto zokubala? • Nazi izinto zokubala ezingama- 200. Zibale ngokuthi uzenze amaqoqo/ izinyanda ezihamba ngamashumi. • Ukuzibala zonke lezizinto zokubala ezingama- 200 ungakhetha ukuzibala ngamaqoqo ahamba ngama- 20 noma ama- 25? Kungani? • Nquma ukuthi kungaba iyiphi indlela engcono yokubala iqoqo lamapensela/ amapeni omsizi. • Nazi izinto zokubala izingama- 80 Uma sibala ngakubili noma ngamashumi, ingabe isamba sezinto zokubala sizohlala sinjalo? • Bala izinto zokubala ezingama- 46 ngokuzibeka ngamaqoqo/izinyanda ezihamba ngakubili. Ingabe kuyashesha ukubala ngakubili kunokubala ngakodwana?	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.2 **Ukubala uyaphambili nasemuva**	Bala ukuyaphambili noma uhlehal/ ubuyela emumva nga • 1 ukusuka kunoma iyiphi inombolo ephakathi kwe 0 na 1000 • bephindaphinda ngama 10 phakathi kuka 0 nama 1000 • bephindaphinda ngaku5 phakathi kuka 0 nama 1000 • bephindaphinda nga 2 phakathi kuka 0 nama 1000 • bephindaphinda nga 3 phakathi kuka 0 nama 1000 • bephindaphinda nga 4 phakathi kuka 0 nama 1000 • ngama 20, 25, 50, 100 ukufika okungennani 1 000	Bala ukuyaphambili noma uhlehal/ ubuyela emumva nga • 1 ukusuka kunoma iyiphi inombolo ephakathi kwe 0 na 1000 • bephindaphinda ngama 10 phakathi kuka 0 nama 1000 • bephindaphinda ngaku5 phakathi kuka 0 nama 1000 • bephindaphinda nga 2 phakathi kuka 0 nama 1000 • bephindaphinda nga 3 phakathi kuka 0 nama 1000 • bephindaphinda nga 4 phakathi kuka 0 nama 1000 • ngama 20, 25, 50, 100 ukufika okungennani 1 000	**Ngasemaphethelweni ethemu abafundi kumele bakwazi:** Ukubala ngokuzethemba, bephimisa ngakunye, ngamashumi, ngakuhlanu, ngamashumi amabili, ngamashumi amabili ananhlanu, ngamashumi amahlanu, ngamakhulu ukuya e- 1000 Ukuphendula imibuzo efana: Bala ngamashumi usuka 400 ukuya 500. Manje bala uhlehla/ ubuyela emumva futhi. Bala ngaku 2 usuka 564 ukuya 580. Manje bala uhlehla/ ubuyela emumva futhi Bala ngamashumi amahlanu kusukela ema - 600 kufinyelela ema - 800. Mangaki ama - 50 owabalilie? Bala uye emuva ngama - 100s kusukela ema - 620. Mangaki ama - 100s owabalile? Bala uye emuva ngakunye kusukela - ema - 876 kufinyelela ema - 866. Kungaki okukodwa okubalile? Ungaqiniseka kanjani ukuthi wenza ngakho? Bala ngokuyi - 15 uye phambili kusukela ema - 305. Uma ubala ngama - 25 kusukela ema - 525 kufinyelela ema - 850 ungayisebenzisa lenombolo 725? Bala uhlole Iyiphi inombolo elandelayo? 467, 468, 469, 725, 750, 775, 420, 440, 460 820, 800, 780 Bala usebenzisa umugqa wezinombolo Dweba umugqa wezinombolo ongenalutho ukhombise lezinombolo kuwo: 602, 604, 610. Manje-ke ungawabeka kuphi 606? Bala usebenzisa umugqa wakho wezinombolo usuka 602 ukuya 610. Bala ngamashumi usuka 314 ukuya 344.Yimaphi amadijithi asguqukayo? Yimaphi amadijithiangaguquki? Kungani amakhulu angaguquki? Kwenzakalani uma ubala uhlehla, ubuyela emumva?	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.3 **Izimpawu zezinombolo kanye namagama ezinombolo**	**ukukhomba, ukubona kanye nokufunda izinombolo** • ukukhomba, ukubona kanye nokufunda izimpawu zezinombolo 0 ukuya1 000 • Ukubhala izimpawu zezinombolo 0 -1 000 • ukukhomba, ukubona kanye nokubhala amagama ezinombolo 0 ukuya1 000 • Ukubhala amagama ezinombolo 0 -1 000	**ukukhomba, ukubona kanye nokufunda izinombolo** • ukukhomba, ukubona kanye nokufunda izimpawu zezinombolo 0 ukuya1 000 • Ukubhala izimpawu zezinombolo 0 -1 000 • ukukhomba, ukubona kanye nokubhala amagama ezinombolo 0 ukuya1 000 • Ukubhala amagama ezinombolo 0-1 000	**Ngasemaphethellweni ethemu abafundi kumele bakwazi:** Ukufunda nokubhala izinombolo ukufika okungenani 1 000 Ukuphendula imibuzo efana nokuthi: Iyiphi inombolo ebhalwe kulelikhadi? **642** Thola ikhadi elina 738 noma amakhulu ayisikhombisa amashumi amathathu nesishiyagalombil Funda lezinombolo ezilandelayo kuzwakale: 534, 947, 974, 345 Funda lamagama: • Amakhulu amathathu,amashumi amane anambili • Amakhulu ayisishiyagalombili namashumi amabli ananye • Amakhulu amane, amashumi ayisithupha nanye. • Inkulungwane • Amashuma amabili anesishiyagalolunye Bhala ngokwezimpawu zezinombolo • Amakhulu amahlanu namashumi ayisikhombisa • Amakhulu amahlanu • Amakhulu ayisithupha namashumi ayisishiyagalombili ananhlanu	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.4 **Ukuchaza, ukuqhathanisa uhlele izinombolo**	**Ukuchaza, ukuqhathanisa ukuhlela izinombolo ukufika 999** • Ukuchaza nokuqhathanisa izinombolo eziphelele ukufika 999 usebenzisa-kuncane ku- kukhulu ku- kungaphezulu ku-, more than, kulidlanzana ku- futhi kulingana na- • Ukuchaza nokuqhathanisa izinombolo eziphelele ukufika 999 ukusuka kokuncane ukuya kokukhulu, nokukhulu ukuya kokuncane **Ukusebenzisa izinombolo ezimele isikhudla ukukhombisa ukuhleleka, isikhundla noma ukuma** • Ukusebenzisa, ukufunda nokubhala izinombolo ezimele isikhundla, umbandakanya indlela efingqiwe ukufika 31	**Ukuchaza nokuqhathanisa izinombolo** **eziphelele ukufika 999** • Chaza bese uqhathanisa izinombolo eziphelele kufinyelele ema- 999 usebenzisa okuncane okunokunye, okukhulu okunokunye, okungaphezulu okunokunye, okumbalwa okunokunye nokulingana nokunye. • Ukuchaza nokuqhathanisa izinombolo eziphelele ukufika 999 ukusuka kokuncane ukuya kokukhulu, nokukhulu ukuya kokuncane **Ukusebenzisa izinombolo ezimele isikhudla ukukhombisa ukuhleleka, isikhundla noma ukuma** • Ukusebenzisa, ukufunda nokubhala izinombolo ezimele isikhundla, umbandakanya indlela efingqiwe ukufika 31	**Ngasemaphethellweni ethemu abafundi kumele bakwazi:** Ukuhlela izinombolo ukufika okungenani 1000 Ukuphendula imibuzo ebuzwe ngezindlela ezahlukene: Ukufunda umugqa wezinombolo.  Avela kuphi 450? Avela kuphi 700? Avela kuphi 350? Manje-ke gcwalisa zonke izinombolo. Ukubhala izinombolo ukusuka kwenkulu ukuya kwencane 345, 428, 389, 561, 600, 739, 620, 824 Ukuqhathanisa izinombolo ukufika 999 **Izibonelo** • Iyiphi inombolo enkulu ngoku-1 kuma-563 • Iyiphi inombolo eza ngemuva kwama-768 • Iyiphi inombolo engaphansi ngoku-1 kuma- 431 • Iyiphi inombolo enkulu ngoku-10 kuma-620 • Iyiphi inombolo engaphansi ngoku-10 kuma- 650 • Iyiphi inombolo enkulu ngoku-20 kuma -480 • Iyiphi inombolo engaphansi ngoku-20 kuma- 740 • Iyiphi inombolo enkulu ngoku-25 kuma -625 • Iyiphi inombolo enkulu ngoku-50 kuma 250 • Iyiphi inombolo engaphansi ngoku-50 kuma- 700 • Iyiphi inombolo enkulu ngoku-300 kuma -300	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
			Phendula amanga noma iqiniso. Nikeza isizathu sempendulo oyinikile/ oyishilo 220 asondele kakhulu 200 ku 250 403 awasondele kakhulu 400 ku 420 15 lisondele kakhulu 0 ku 30 Gcwalisa ngokuthi kuningi/ ngaphezulu kuno kuncane noma kungaphansi kuno 145 mu _____ 154 823 mu_____ 789 466 mu_____ 664 Sebenzisa amadijithi 9, 0, 6 ukwenza inombolo enkulu kunazo zonke ongase uyenze. Iyiphi inombolo encane kunazo zonke ongase uyenze?	
1.5 **Ukubona isikhundla sobungako benombolo**	**Ukubona ukuthi izinombolo ezingamadijithi amathathu ezitholakala 999 zimele okungaki** • Ukubona ukuthi inombolo ngayinye imeleni • Ukuhlakaza izinombolo ezinamadijithi 3 ukufika 999 ngngokuphindelela okwe 100, ngokuphindelela kweshumi, kanye nangakunye (HTU) • Ukubona nokusho isimelabungako sedijithi ngayinye		Maphakathi nalethemu ukuhlanganiswa kwalemiqondo elandelayo kufanele kugcizelelwe futhi kugqugquzelwe: • Izinombolo zingahlukaniswa ngokwamakhulu, amashumi nangakunye • Ukuqonda ukuthi 51 makhulu ku 15 ngoba 51 anamaqoqo/ izinyanda 5 ezihlukaniswe ngamaqoqo/ izinyanda ezihamba ngamashumi, 15 bese kuthi iqoqo/ inyada 1 lihambe ngamashumi • Uma bebala ngaku shumi, uma abafundi befika 40 sebayazi ukuthi sebebala amashumi 4 **Ngasemaphethellweni ethemu abafundi kumele bakwazi:** **Ukusebenzisa, ukufunda kanye nokubhala lolulimi lokusebenza ngesimelabungako baluqondisise.** Izinhlamvu noma okuhamba ngakunye, ngamashumi, ngamakhulu, idijithi, idijithi elilodwa, inomboolo yamadijithi amabili …, inombolo yamadijithi amathathu, isimelabungako…. **Ukubona 0 njengesimeleli (as place holder) uma sikhuluma ngezinombolo ezinamadijithi amabilii- noma amathathu afana** 60 305 720	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.5 **Ukubona isikhundla sobungako benombolo**			**Ukuhlukanisa inombolo ukukhombisa inani ledijithi ngayinye** 637 = 600 + 30 + 7 Ukusebenzisa amakhadi amafuladi khadi (flard cards) ukukhombisa lokhu **600** **30** **7** Ukusebenzisa amabhuloki Dienes (dienes blocks) ukukhombisa isimelabungako senombolo **Ukuphendula imibuzo efana nalela:** Shano ukuthi idijithi 7 e127 limeleni kanjalo no 2? Kanye no 1? Kunamakhulu amangaki kulezi zinombolo ezilandelayo 300, 500, 700, 412, 568 Kunamaqoqo amangaki amashumi kuleyo naleyo nombolo kulezinombolo ezilandelayo? 50, 80, 100, 200, 700, 120 **Bhala izinombolo:** Ikhulu nanhlanu Amakhulu ayisithupha nashumi amabili nanhlanu Amakhulu amane nashumi ayisishiyagalombili nesishiyagalolunye Amakhulu amathathu anantathu **Bhala izinombolo:** 1 ikhulu + 2 amashumi Amakhuku amabili + 3 amashumi + 7 imivo Amakhulu amane + 9 amashumi + 3 imivo Chaza ukuthi iyiphi inombolo efanele ukungena ebhokisini ngalinye 872 = ☐ + 70 + 2 129 = 100 + ☐ + 20 + 9 346 = 300 + 40 + ☐ Bhala ubungako bedijithi ngayinye kulenombolo 762	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
UKUXAZULULA IZINKINGA ESIMWENI ESEJWAYEKILE				
1.6 **Amasu okuxazulula izinkinga**	Ukusebenzisa amasu alandelayo uma uxazulula izinkinga, nokuchaza isixazululo sezinkinga: • Ukwakha kanye nokubhidliza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Imigqa yezinombolo • nokusondezela emashumini		Abafundi balindeleke ukuxazulula izibalo zamagama besebenzisa lamasu alandelayo: • Ukwakha kanye nokubhidliza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Imigqa yezinombolo • nokusondezela emashumini Buka amanothi ethemu ye 2 mayelana namasu alandelayo • Ukwakha kanye nokubhidliza izinombolo • Ukuphinda kabili nokuhlukanisa kabili ngokulinganayo • Imigqa yezinombolo **nokusondezela emashumini** Maphakathi kwalethemu abafundi bangasebenzisa amasu okusondezela eshumini uma bexazulula izibalo zamagama Isibonelo: UNoah una R48,00. Iphakethe lamakhadi alithathayo libiza R5, 00. Angathenga amaphakethe amangaki? Abafundi bangasondezela R48 eshumini, okuzoba R50.00. Lokhu kuchaza ukuthi angathenga cishe amaphakethe 10. Abafundi kuzofanele babale baphinde babalisise ukuze bathole ukuthi ingabe sebesondele ngokwenele eshumini. Vumela abafundi ukuba bakhethe amasu abakwazi ukuwasebenzisa bekhululekile. Noma kunjalo, uma abafundi besebenzisa amasu angavamile lapho-ke badinga ukucetshiswa ukuba bakhethe amasu avamile. Abafundi akudingekile ukuba bangenzi amaphutha ngamasu abo. Bazokwazi ukubuye bawasebenzise futhi uma sebefunda emabangeni aphakathi.	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.7 **Ukuhlanganisa nokususa**	Ukuxazulula izibalo zamagama esimweni esjwayelekile nkuchaza isixazululo esimbandakanya ukuhlanganisa, ukususa, okuholela ngezimpendulo ezifika 99.		**Ngasemaphethellweni ethemu abafundi kumele bakwazi: ukwenza izibalo zamagama ezilandelayo** **Ukuhlanganisa nokususa** Kunezinhlobo okungenani ezintathu zokuhlanganisa nokususa There are at least three basic types of addition and subtraction problems and each type can be posed in different ways. The basic types are: Shitsha uNoluthando uqoqe amaphepha okudlala anamathelayo/amastikha a 234. USilo wabuye wamupha amanye amastikha 80. Usenamastikha amangaki manje? Kunabagibeli 500 esitimeleni. 176 labagibeli lehla.Bangaki abagibeli abebesele esitimeleni? Hlanganisa UNosisi uqoqa izinto ezizosetshenziswa kumaprojekthi ezikole okuguqula izinto kabusha.Ucoshe amabhodlela kaplastiki 124 kanye namathini 268. Zingaki izinto asezicoshile? Isitolo sinamaphakethe amashibusi 368; 82 angama chippos kanti asele angama ziksnacks.Mangaki amaphakethe noma amaZicksnacks asele? Qhathanisa IBANGA LESI-2 liqokelele R446. IBANGA LESI-3 laqokelela R729. Ingabe IBANGA LESI-3 liqokelele malini ngaphuzulu? **Ukubuza isibalo samagama ngasinye ngezindlela ezehlukile** zsibalo zamagama kufanele zibuzwe ngezindlela ezahlukile. Ngokwesibonelo, zozibili lezibalo zimayelana noshintshi, kodwa “izinombolo ezicashile” zisezindaweni ezahlukene esibalweni Isitolo besinamaphakethe emphuphu; kwafakwa enye i oda 55. Manje kunamaphakethe emphuphu a 170. Mangaki amaphakethe abekade ekhona kwasekuqaleni? Isitolo besinamaphakethe kashukela 500. Ngemuva kokudayisa amanye alamaphakethe, bekunamaphakethe kashukela 324 asele. Bathengise amaphakethe amangangaki?	

<table>
<tr><th>IZIHLOKO</th><th>IMIQONDO NAMAKHONO
OKUDINGEKAYO NGOKUPHELA KONYAKA</th><th>IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1</th><th>AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI
(ngokwesifundo esingangehora nemizuzu engu 24)</th></tr>
<tr><td>1.8
Ukuhlanganisa ngokuphindelela kuhelela ekuphindaphindeni</td><td>Ukuxazulula izinkinga esimweni esejwayelekile, nokuchaza izixazululo zezinkinga ukusebenzisa ukuphinda</td><td></td><td>Izibonelo zezibalo ezingenziwa kulethemu
Ukuhlanganisa ngokuphindaphinda
Izimoto 36zinamasondo amangaki?
Isilinganiso
UThami ugcina 35c ngeviki. Imalini ayigcinayo emasontweni a 8?
Amagridi
UMnu Khumalo utshala izinhla e 20 zezihlahla zikawolintshi. Kunezihlahla e 12 ohleni ngalunye. Zingaki izihlahla ezitshaliwe uma seziphelele?
Izibalo ezixhumene ngemisebenzi eyahlukene
UHeila uthengisa amasosiji ewabiza R4 lilinye. Yaka ithebula umsize ukuba akwazi ukuthola inani lamaoda amakhulu.
<table>
<tr><td>Isibalo samasosiji</td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>10</td><td>20</td></tr>
<tr><td>Intengo ngokwama R</td><td>4</td><td>8</td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
Sebenzisa ithebula ukuthola intengo yamasosiji a 7 na 23 amasosiji.
USedick ubheka izingane. Ubiza R20 yokugibela, kany R5 ukubheka ingane ihora ngalinye. Mugcwalisa lelithebula.</td><td></td></tr>
</table>

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.9 **Ukwenza amaqoqo nokuhlukaniselana okuholela ekuhlukaniseni**	Ukuxazulula izinkinga nokuchaza izixazululo ezibalweni eziphathekayo ezimbandakanya ukwahlula ngokulinganayo nokuhlela ngamaqoqo ukufika 100 nezimpendulo ezingase zibe nensalela.		**Izibonelo zezibalo ezingenziwa kulethemu** **Ukuhlela ngamaqoqo** Ukuhlela ngamaqoqo, ngokulahla insalela the Isitolo esithengisa izinkwa, sithengisa izikhwanyana zamakhekhe a 12. Banamakhekhe 118. Kungaphuma izikhwanyana ezingaki zamakhekhe awu 12 isikhwama ngasinye? **Ukuhlela ngamaqoqo ngokufaka inselela empendulweni** Umlimi unamaqanda 227. Udinga amabhokisi amangaki aphatha amaqanda 6 lilodwa ukuze akwazi ukupakisha amaqanda? **Ukwahlula** Ukwahlula, ulahla insalela Abangane abahlanu bahlula ibhokisi likaswidi o 84 ukuze bakwazi ukuthola inani lamaswidi alinganayo.	

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1.10 **Ukuhlukaniselana okuholela emaqhezwini**	Ukuxazulula izinkinga nokuchaza izixazululo ezibalweni eziphathekayo ezimbandakanya ukwahlula ngokulinganayo okuholela kwizixazululo ezimbandakanya amaqhezu anezingcezu ezingaphezu kolulodwa kanye nalawo ayiqhezu elilodwa kokuphelele isib. $\frac{1}{2}, \frac{1}{4}, \frac{3}{4}, \frac{2}{5},$		**Izibonelo zezibalo ezingenziwa kulethemu** Ukwahlula okuholela ezingcezwini Yahlula amagabelo kashokoledi 15 phakathi kwabangane, ngendlela yokuthi bonke bathola inani elifanayo lamagabelo kashokoledi kungasali lutho. Yahlula amagabelo kashokoledi 7 phakathi kwabangane 3, ngendlela yokuthi bonke bathola inani elifanayo lamagabelo kashokoledi kungasali lutho. **Iqhezu lohlobo oluthile** Ugogo upha uKiki R12.u Kiki ufuna ukulondoloza iqhezu lokuthathu lwalemali. Kufanele alondoloze malini? Loluhlobo lwesibalo kufanele abafundi basenze umanje sebake benza izibalo zokwahlula okungenani amahlandla amane nma amahlanu, okuyikhona okuzobaholela ekutheni bazi namagama ezingcezu lweziqhezu. **Ukuhlanganisa iziqhezu** Umlolongi webhola lezandla upha abadlali ingxenye yewolintshi ngamunye.. Kunabadlali aba 14. Udinga amawolintshi amangaki? Loluhlobo lwesibalo kufanele abafundi basenze umanje sebake benza izibalo zokwahlula okungenani amahlandla amane noma amahlanu, okuyikhona okuzobaholela ekutheni bazi namagama ezingcezu lweziqhezu. **Ukubhala iziqhezu** Abafundi abadingekile ukubhala izimpawu zeziqhezu. Abafundi bafunda ukulebula izingxenye njengokuthi iqhezu kokuhlanu, 1 fifth, okuthathu koqhezu lokwesine noma okuthathu koqhezu lokwesithupha 3. Lokhu kubasiza okuqala ukuba baqonde ukuthi igama leziqhezu lichaza ukuthi zingaki izinhla zokugcwele ezahluliwe isib. Ingxenye, okunye kokuthathu, okunye kokune njl. Nokuthi zingaki izinhla ezithathwa njengokubili kokuthu. **Ukumela iziqhezu zezibalo zamagama** Abafundi kufanele badwebe izimpendulo zabo ukubonakalisa ukuthi bayasiqonda isibalo. Ukulindele ukuthi abanye abafundi bangase badwebe kahle kodwa balubizi kahle uhla lweqhezu. Abafundi kufanele basho izingxenye abazibhale ngokuhlanganyela, izingxenye ezi 2 kwezintathu.	

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1.11 **Imali**	• Ukubona nokukhomba uhlwweza lwase Ningizimu Afrika kanye namanoyhi asebhange/ imaliyephepha. • Ukuxazulula izibalo zemali nokuhlanganisa ushintshi ngokwamarandi noma amasenti. • Uguquko phakathi kwamarandi namasenti		**Izibonelo zezibalo ezingenziwa kulethemu** • INani lemali kanye nokwakha isamba isib. - Bhala 325c ngokwamarandi namasenti. - Zingaki izindlela ongazisebenzisa ukwakha R400 usebenzisa kuphela amanothi asebhange/ imali engamaphepha? Wazi kanjani ukuthi ingabe unazo zonke izixazululo? - UTravis unocezu oluyi 50c kanye nezinye ezi 20c ezine. Amatofi abiza R1, 20. Uzothola ushintshi kamalini? • uMandla ubhadala R5,50 ethekisini uma eya esikoleni. - Ingabe usebenzisa malini nsuku zonke ukuya nokubuya esikoleni? Izibalo zokuthenga nokudayisa • UPedro uphiwe wugogo R5. Yimaphi amaswidi amathathu angawathenga? ushokoledi R2,70; uswidi R1,80; izibungu ezimuncu R1,40; uswidi kapentshisi R1,60; uminti R2,20; utofi R1,20. • UDamon uthenge izincwadi ezintathu R80 eyodwa; Kuzobuya ushitshi kamalini uma ebhadala R300? • Amaphakethe kaminti 5 abiza 44c lilodwa. UMnu King ufuna ominti 88. Angathenga amaphakethe amangaki? Uzobhadala malini?	
IZIBALO				
1.12 **Amasu (izindlela noma amaqhinga)**	• Ukusebenzisa amasu uma bebala • Ukwakha nokubhidliza izinombolo • Ukuphindaphinda nokuhlukanisa kabili ngokulingana • Umugqa wezinombolo • Ukusondezela eshumini		Buka amanothi eThemu ye - 3	

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1.13 **Ukuhlanganisa nokususa**	• Ukuhlanganisa ukufika 999 • Ukususa usuka 999 • Ukusebenzisa izimpawu ezifanele (+, -, =, ☐) • Ukuzilolongela amabhondi ezinombolo ukufika 30		Maphakathi nalethemu abafundi baqhubeka nokwehlakaza izinombolo ukuze bakwazi ukubala. Izindlela ezingasetshenziswa ukukhombisa izibalo zokuhlanganisa nokususa **Ukwehlakaza izinombolo zibe yizingcezu ezincane ukuze ukubala kubelula** **Ukusebenzisa ulwazi lwesimelibungako ukuhlakaza izinombolo ngamakhulu, ngamashumi kanye nemivo** • Ukuhlanganisa ngokuhlakaza zombili izinombolo Ukuhlanganisa amadijithi ehamba ngamatathu nalawo ahamba ngambili 524 + 82 = ☐ = (500 + 20 + 4) + (80 + 2) = 500 + (20 + 80+ (4 + 2) = (500 + 100) + 6 = 600 + 6 = 606 Ukuhlangaisa amadijithi amathathu namanye amadijithi amathathu 323 + 436 = ☐ 323 + 436 = = (300 + 20 + 3) + (400 + 30 + 6) = (300 + 400) + (20 + 30) + (3 + 6) = 700 + 50 + 9 = 759 • Ukuhlanganisa (ngokuhlakaza izinombolo okufanele zihlanganiswe) Abafundi bazokwehlakaza izinombolo ngendlela ezoba lula kubona. Lokhu kuchaza ukuthi bazokwenza ngezindlela ezahlukene. 524 + 82 = ☐ 524 + (40 + 40 + 2) 524 + 40 → 564 + 40 → 604 + 2 = 606	

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1.13 **Ukuhlanganisa nokususa**			Ukuhlangaisa amadijithi amathathu namanye amadijithi amathathu 323 + 436 = □ = 323 + (400 + 30 + 6) = (323 + 400) + 30 + 6 = (723 + 30) + 6 = 753 + 6 = 759 • Ukususa ngokuhlakaza izinombolo zombili Three-digit subtract three-digit 889 - 137 = □ 889 - 137 = (800 + 80 + 9) - (100 + 30 + 7) = (800 - 100) + (80 - 30) + (9 - 7) = 700 + 50 + 2 = 752 • Ukususa ngokuhlakaza inombolo eyodwa Three-digit subtract three-digit 889 - 137 = □ 889 - (100 + 30 + 7) 889 - 100 → 789 - 30 → 759 - 7 = 752 • Ukusebenzisa ukuhlukanisa inombolongoukuhlakaza inombolo kabili 525 + 16 = 525 + 8 + 8 = (525 + 8) + 8 = 533 + 8 = 541 • Qhubeka ubale ubuyela emumva 805 = 798 = □ ukubala uya phezulul ngakunye uqale 798 kuyiqhinga elifanele ngoba izinombolozisondelene.	

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1.13 **Ukuhlanganisa nokususa**			• Ukukhomba okusondele ekuphindaphindeni kabilil 245 + 246 Lesibalo esngenhla singabizwa ngokuphindaphinda 245 + 1 phindaphinda 246 - 1 245 + 245 + 1 = (200 + 40 + 5) + (200 + 40 + 5) + 1 = (200 + 200) + (40 + 40) + (5 + 5) + 1 = 400 + 80 + 10 + 1 = 400 + (80 + 10) + 1 = 400 + 90 + 1 = 491 **Ukuthuthukisa nokulzilolongela amakhono okuhlanganisa nokususa.** Abafundi kumele bazilolongele amakhono ezinhlobo zokuhlanganisa kanye nokususa **Ukubala uya phezulu naphansi ukusondezela 10** 588 + 9 588 + 10 = 598 598 - 1 = 597 588 + 19 588 + 20 = 608 608 - 1 = 607 Abafundi kumele babenamathuba okwenza lezizinhlobo zokubala ngezinombolo ezifika 800: Ukuhlanganisa noma ukususa izinombolo ezibhanqiwe ngokuphindaphinda ngaku 10,unqamula 100 40 + 70 70 + 80 120 - 30 150 - 60	

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1.13 **Ukuhlanganisa nokususa**			Ukuhlanganisa noma ukususa 10 ukuya noma ukusuka kunoma yimaphiamadijithi ezinombolo ezimbili noma ezintathu kanye nokunqamula ama 100 Isibonelo: 65 + 10 124 + 10 326 - 10 358 - 10 Ukuhlangansisa noma ukususa idijithi eyodwa noma inombolo enamadijithi amathathu ngaphandle kokunqamula amashumi. Isibonelo: 634 +5 775 + □ = 779 768 - 4 Ukuhlangansisa noma ukususa idijithi eyodwa ukusuka noma ukuya kngokuphindelela kwe 100 Isibonelo: 600 + 4 500 + 3 700 - 6 800 - 5 Ukuqala ukuhlanganisa nokususa okubhanqiwe kokuphindaphinda kwe 100 100 + 100 100 + 200 200 + 200 300 + 400 Abafundi kumele baphiwe ithuba lokuzilolongela amaphethini atholakala ekuhlanganiseni nasekususeni.	

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1.13 **Ukuhlanganisa nokususa**			Uma ngazi ukuthi 1+ 1 = 2 Manjeke yini: 10 + 10 100 + 100 Ukuqala ukuhlanganisa nokususa okubhanqiwe kokuphindaphinda ukusuka kunoma iyiphi inombolo enamadijithi amathathu Isibonelo: 675 + 100 762 - 100 **Ukuqonda ukuhlanganisa ekupheleni konyakande** Ekupheleni konyaka abafundi kufanele bakwazi: Ukusebenzisa nokuqonda ulimi lokuhlanganisa: Ubunigi,,hlanganisa, isibalo,isamba, sekukonke,kulungana, uphawu…. nokufunda nokubhala uphawu lokuhlanganisa(+) kanye nophawu lokuninganisa (=) Qhubeka uthuthukisa ukuqonda kokuhlanganisa njengokubala uqhubeka kanye nezinyathelo kumugqa wezinomblo. Isib. Phendula lokhu okulandelayo. Kungaki ekudingeka ukuba ngikungeze 67 ukuze ngenze 85? Nasi isbbalo esiwumusho engingasisebenzisa embuzweni wami: 67 + ☐ = 85. Ukuphendula izinhlobo zemibuzo elandelayo: • Hlanganisa ndawonye 43 ne 19 • Ngeza ishumi kwi 167 • 51 hlaganisa 83 • Ngeza 70 ema- 50 • 280 = 120 + 80 + ☐ • Yini 30 ngaphezukwe 160 • Thola inani le 156 ne 14 • Ngeza ishumi nambili ekhulwini namashumi ayisikhombisa nanhlanu	

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1.13 **Ukuhlanganisa nokususa**			• Iyiphi inmbolo uma wengeza ishumi ku 483? • Kufanele wengeze yiphi inombolo ema- 45 ukuthola i-178? • Kufanele wengeze yiphi inombolo e ma-25 ukuthola i-178? • Kufanele ngongeze yiphi inombolo e ma-56 ukuthola i-170? • Yini okumele ngiyihlanganise ema- 56 ukuthola i- 170? • Amashumi 12 hlanganisa 8 imivo • 245 + 10 = ☐ 245 + 20 = ☐ 245 + 30 = ☐ Yazi ukuthi ☐ limele inombolo efihliwe 45 + 81 = ☐ 67 + ☐ = 125 47 + 32 + 8 = ☐ 31 + ☐ + 20 = 160 ☐ + △ = 100 ☐ + △ = 120 ☐ + △ = 450 Ukuqonda nokusebenzisa ulwazi lokuthi ukuhlanganisa kungenziwa nganoma iyiphi indlela.noma izinombolo zingahleleka nanoma iyiphi indlela 178 + 12 = 190 ngakho-ke 12 + 178 = 190 **Ukuqonda ukususa ekupheleni konyaka** Ukusebenzisa nokuqonda ulimi lokususa: Thatha, susa, kusele mangaki,kuncana kangakanani lokhu.. kuna..., umehluko phakathi, kuningi kangakanani lokhu ……kuna…..okungakanani ukwenza…… nokufunda nokubhala uphawu lokususa(-) Qhubeka uthuthukise ukuqonda kokususa njengo: • thatha; noku • thola umehluko phakathi.	

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1.13 **Ukuhlanganisa nokususa**			Ukuqonda ukuthi ukususa iqanda akuyishintshi inombolo: 192 - 0 = 192 192 = 192 - 0 Ukuphendula imibuzo ebhaliwe ebekwe ngezindlela ezahlukahlukene kanje: 37 thatha 13 Thatha 40 e 280 162 susa 42 Subtract 45 from 390 Yini umehluko phakathi kwa 738 ne 157? 117angaphansi kanganani ku 449? Iyiphi inombolo okufanele uyisuse ku 56 ukuze uthole 122? Iyiphi inombolo okufanele uyisuse ku 56 ukuze uthole 132? Iyiphi inombolo okufanele uyisuse ku 56 ukuze uthole 142? Thola izinombolo ezibhangqiwe ezinomahluko we10 Kunamapeni omsizi a 45 kwi shalofu elidonswa likathisha. Ukhipha amapeni a 17. Mangaki asele? Thola izinombolo ezibhangqiwe ezinomahluko wa 20. Yazi ukuthi ☐ limele inombolo efihliwe. 557 - 134 = ☐ 800 - 530 = ☐ 762 - ☐ = 448 598 - 42 = ☐ 687 - ☐ = 375 13 - 6 = 15 - ☐ ☐ - 18 = 24 174 - 14 = ☐ 199 - ☐ = 25	

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1.13 **Ukuhlanganisa nokususa**			Ukuqala ukuqonda ukuthi 125 - 10 wahlukile kuno10 - 125 Ukuqonda ubudlelwano phakathi kokuhlanganisa nokususa. Ukusebenzisa ubudlelwano phakathi kokuhlanganisa nokususa. Ukusho nokubhala iphuzu lokususa elinikiwe ephuzwini lokuhlanganisa nangokuphambanayo (vice versa). Isib: 25 + 68 = 93 implies that 93 - 68 = 25 68 + 25 = 93 implies that 93 - 25 = 68 122 - 104 = 18 implies that 18 + 104 = 122 Ngaphandle kokusebenzisa izinsiza phendula lokhu okulandelayo: Uyazi ukuthi 145 + 120 = 265 Kuyini: 120 + 145 265 - 120 265 - 145 154 - 38 = 116 Uyazi ukuthi 154 - 116 116 + 38 38 + 116 Bhala uphendule lokhu okulandelayo: 64 - 37 = ☐ ngakhoke 37 + ☐ = 64 137 - 17 = ☐ ngakhoke ☐ + △ = 137 200 - 100 = ☐ ngakhoke ☐ + 100 = 200 89 - 38 = 51; 51 umehluko ngoba ☐ + △ = 89 Bhala izibalo zamagama ezine usebenzisa lezizinombolo.160, 35, 125	

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1.13 **Ukuhlanganisa nokususa**			**Ukuhlola imiphumela yezibalo** **Ukwahlulela ukuba nezizathu khwezixazululi** Abafundi **kumele balolongwe ukwahlulela ukuba nezizathu khwezixazululi** Enye indlela yokwenza lokhu ukuqagela izimpendulo zabo ngaphambi kokubala. Uma behlanganisa izinombolo ezimbili ezisondelene isib. 45 46, abafundi bangasebezisa ukuphinda kabili njengendlela yokuqagela izimpendulo zabo. **Ukuhlola izixazululo** Abafundi kumele bazi ukuthi banga • sihlola isibalo sokuhlanganisa ngokususa.Isibonelo: uma 36 + 18 = 54; ngakho 54 - 18 = 36 • sihlola isibalo sokususa ngokuhlanganisa isibonelo: 84 - 48 = 36, bese 36 + 48 = 84 Ukusebenzisa ukusebenza ngokuhlanekezela ukuhlola izixazululo ngesinye sezizathu zokufundisa ukulhanganisa nokususa kanye kanye.	
1.14 **Ukuhlanganisa ngokuphindelela okuholela ekuphindaphindeni**	• Ukuphindaphinda izinombolo 1 ukuya 10 nga 1, 2, 3, 4, 5, 10 • Ukusebenzisase izimpawu ezifanele (x, =, ☐)		Maphakathi nalethemu abafundi baqhubeka: • Ukusebenzisa nokuqonda ulimi lokuphindaphinda, • Ukumela ukuhlela ukuphindaphinda ngononina; • Ukusebenzisa izimpawu ezifanele ukuchaza iizibalo eziyimisho; • Ukuqonda ukuthi ukuhlanganisa ngokuphindaphinda kungavezwa ngokusebenzisa uphawu lokuphindaphinda; • Ukuzuzilolonga nokuqonda ukuthi ukuphindaphinda kungenziwa nanganoma iyiphi indlela. (umthetho wokumiswa kwezinombolo); • Ukusebenzisa umugqa wezinombolo ukubonisa izibalo zokuphindaphinda babuye bakwazi ukuchaza okumelwe (ukuthi imeqo ikubonisa kanjani ikuhlanganisa ngokuphindaphinda); no • Nokuhuba ithebula lokuphindaphinda Ekupheleni kwethemu abafundi kumele bakwazi: Ukusebenzisa ulimi lokuphindaphinda ngendlela ephathekayo:	

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1.14 **Ukuhlanganisa ngokuphindelela okuholela ekuphindaphindeni**			Ukuphindaphinda, izikhathi, phindaphinda, phindaphinda ngo,isiphindaphindi se..,okuningi, amaqoqo e.., isikhathis njengo (enkulu, ende, okubanzi..), kabili, kathathu,kangango, ukufunda nokubhala uphawu lokuphindaphinda (x) Ukusebenzisa ulimi ukwenza izibalo zokuphindaphinda **Ukuqonda ukuphindaphinda njengokuhlanganisa ngokuphindelela** 6 kuhlanganiswe ndawonye izikhathi 3 kuyafana nokuthi: 6 + 6 + 6 = 18 3 nokuningi o 6 = 18 3 izikhathi 6 = 18 6 x 3 = 18 3 x 6 = 18 **Ukuqonda ukuphindaphinda njengoba kuchaza izinhlelo ngononina**  $5\times3=15$ $3\times5=15$ Ukuqala ukubona ukuthi ukuphindaphinda kungenziwa nanganoma iyiphi indlela / uhlelo **Ukuphendula imibuzo ebuzwe ngezindlela ezahlukene** Izihlanu ezimbili Phindaphinda 5 3 phinda 5 Ulhla lwezinto zokubala ezintathu.Kunezinhla 4. Zingaki izinto zokubala sezizonke? 2 phindaphinda 7 16 phinda izikhathi 2	

<table>
<tr><th>IZIHLOKO</th><th>IMIQONDO NAMAKHONO

OKUDINGEKAYO NGOKUPHELA KONYAKA</th><th>IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1</th><th>AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI

(ngokwesifundo esingangehora nemizuzu engu 24)</th></tr>
<tr><td>1.14

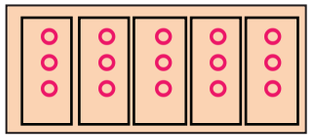
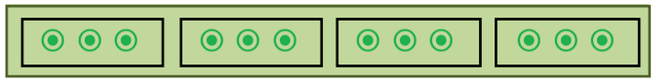
Ukuhlanganisa ngokuphindelela okuholela ekuphindaphindeni</td><td></td><td></td><td>
Ukuqonda umthetho wokumiswa kwezinombolo wokuphinda
3 x 4 = 12 kufana nokuthi 4 x 3 = 12
Ukubona ukusetshenziswa kwesimeleli ☐ ukumela inombolo efihliwe.
2 + 2 + 2 = ☐
2 x ☐ = 6
5 + 5 +5 + 5 + 5 ngakhoke 5 x △ = 25
4 + 4 + 4 ngakhoke 4 x 3 = ☐
10 + 10 + 10 + 10 + 10 ngakhoke 10 x ☐ = 50
5 x ☐ = ☐ x 5 = 45
4 x 8 = ☐ x 4
8 + 8 + 8 = 3 koku yisishiyagalombili = 8 x ☐ = 24
Ukuqonda ubudlelwano phakathi kokuphindaphinda nokuphinda kabili
Kopisha ithebula elingezansi. Gcwalisa uhla lokuphindaphinda izikhathi 4 (‘Umugqa wokuphindaphinda ‘ 4 ‘)
<table>
<tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr>
<tr><td>4s</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>2s</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
</table>
Kusetshenziswe izifanekiso ezahlukene ukuphindaphinda
• Ophahla bokuphiphinda
• Amaflowu shadi
• Amathebula
</td><td></td></tr>
</table>

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.15 **Ukwahlukanisa**	• Ukwahlukanisa ukufika 99 nga 1, 2, 3, 4, 5, 10 • Ukusebenzisa izimpawu ezifanele (÷, =, ☐)		**Yini okuhlukile kwethemu 3?** Ekupheleni kwethemu kufana uqunisekise ukuthibakwazi: • Ukuqonda ukuthi ukuhlukanisa kabili ukuhlanekezela kokuphinda kabili nokukhumbula ukuphindwa kabili kwazozonke izinombolo ukufika 20 kanye nengxenye ehambisana nayo; • Ukubona ukuhlukanisa njengokuhlela ngamaqoqo; • Ukuqonda nokuthokozela ubudlelwano phakathi kokuphindaphinda nokwahlukanisa nokuthi zisebenza ngokuhlanekezela; • Ukusebenzisa izindlela ezibhaliwe eziphathekayo nezingahlelekile ukwahlukanisa amadijithi amabili ngezinombolo one zamadijithi; • Ukusebenzisa ulwazi lwabo lwesimelabungako ukwenza izibalo zokuphindaphinda nokwahlukanisa; • Ukuchaza ukuthi basebenzise ziphi izibalo nokuthi kungani; • Ukuxoxa ngezimpendulo nokuchaza imicabango ba • Sebenzise ulwazi lokusebenza kwezinombolo nokuhlanekezela okuhambisanayo kanye nokuphindaphinda nokuhlukanisa kabili; ukuqagela nokuhlola izibalo. **Amaqhinga okurekhoda** Kunamaqhinga athile okurekhoda angasetshenziswa ngabafundi may use eBangeni 3. Abafundi bangeke bangabi nokunqikaza kuwo wonke lamaqhinga. Badinga ukuholwa uma bebheka izibalo zamagama zokwahlukanisa bazokwazi ukukhetha amaqhinga afanele abazowasebenzisa. Kulindelekile ukuthi abafundi angeke basathembela kakhulu ekudwebeni izithombe kanti bazosebenzisa izinombolo ukuchaza imicabango yabo.	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.15 **Ukwahlukanisa**			**Ukususa ngokuphindelela** Leliqhinga kuzofanele lisetshenziswe uma kuxazululwa izibalo zamagama kant abafundi kumele baholelwe ekufuneni ukwahlukana kwezinombolo bakhethe ukuthi izibalo zingenziwa yini ngokusebenzisa ukususa ngokuphindaphinda. 40 ÷ 8 = □ 40 - 8 → 32 - 8 → 24 - 8 → 16 - 8 → 8 - 8 = 0 Abafundi babala ukuthi bakususe kangaki oku 8 ukufika 0. **Ukuhlanganisa ngokuphindaphinda** Abanye abafundi bangase basebenzise leliqhinga ukuqonda ubudlelwano phakathi kokuphindaphinda nokwahukanisa. Nakhona ke lapha umehluko wezinombolo uzothola ukuthi ingabe iqhinga lilungile noma cha. 40 ÷ 8 = □ 8 + 8 → 16 + 8 → 24+ 8 → 32 + 8 → 40 Abafundi babala ukuthi bahlanganise okukangaki oku 8 ukufika40. **Ukusebenzisa ukuphindaphinda** Abafundi kumele bakwazi ukusho ukuthi: “Yini engiyaziyo ngkuphindaphinda engangisiza ngikwazi ukubala ukwahlukanisa? Abafundi bangabhala phansi amaphuzu okuphindaphinda abawaziyo ebhodini lemikhondo, ukubasiza ukuthi bakwazi ukwahlukanisa	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.15 **Ukwahlukanisa**			**Ibhodi lemikhondo** Ngiyazi: 10 x 3 = 30 Ngiyazi: 4 x 3 = 12 72 ÷ 3 = □ 10 x 3 = 30 10 x 3 = 30 30 + 30 = 60 72 - 60 = 12. 4 x 3 = 12 10 + 10 + 4 = 24 Ngakhoke 72 ÷ 3 = 24 **Ukuhlukanisa Ngamaqoqo** Ukuhlukanisa ngamaqoqo kokwahlukanisa ngaphezu kokuhlanganisa kuchaza ukuthi inomblolo ingaphulwa ibe yizinhla ekuzoba lula ukuzibala. 39 ÷ 3 = □ = (30 + 9) ÷ 3 = (30 ÷ 3) + (9 ÷ 3) = 10 + 3 = 13	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.15 **Ukwahlukanisa**			Ukwahlakaza izinombolo zibe yizingxenye: 60 enziwe ingxenye Abafundi kumele bakwazi ukusho ukuthi: “Yini engiyaziyo ngokwahlukanisa nge 5?” Abafundi bayazi 30 ayahlukaniseka ka 5 kungasali insalela. 60 ÷ 5 = □ 30 ÷ 5 = **6** 30 ÷ 5 = **6** **6** + **6** = 12 Ukusebenzisa izingxenye ukwahlula ngo 4 Abafundi bebelokhu bephindaphinda, behlukanisa ngokwezingxenye iminyaka emithathu yonke. Kumele basebenzise lamakhono njengamaqhinga okubala. Ulwazi lokuphindaphinda nokuhlukanisa ngokwezingxenye lungasetshenziswa uma sekwahlukaniswa: 96 ÷ 4 = □ 96 ÷ 2 = 48 48 ÷ 2 = 24 **Ekupheleni kwethemu kumele bakwazi:** Ukuqonda, ukusebenzisa nokuqala ukufunda: Okukodwa ngamunye, okubili, ngamunye … hlukanisa ngokulingana, ingxenye, hlukanisa kabili,okuphelele,yahlula, yahlula ngo 3 yahlula ngo 4, yahlula ka 2 yahlula ka 3, insalela,, yahlula ngo … amaqoqo alinganayo oku...,insalela Ukufunda, ukubhala nokusebenzisa uphawu lokwahlukanisa (÷) Ukusebenzisa lolulimi ukwenza izibalo zokwahlukanisa Ukuqonda ukwahlukanisa njengokwakha amaqoqo noma ukususa ngokuphindaphinda	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.15 **Ukwahlukanisa**			Ukuphendula imibuzo ebhaliwe ebuzwe ngezindlela ezahlukane: hlukanisa 16 nga 2 Yahlula 20 nga 5 Zingaki izihlanu ezenza 50? Mangaki ama 10c ohlweza enza 50c? Kungaki okune e 20, e 28, e 36? Kungaki okuhlanu e 20, e 40, e 50, e 60? UAnnina uthi ufunda amagama 5 amasha nsukuzonken. Uthatha amalanga ☐ ukufunda amagama a 40. 6 amashumi ÷ 3 = ☐ amashumi Ukubona ukusetshenziswa kwezimpawu ezifana ☐ ezenzelwe izinombolo ezifihliwe Buka izinto zokubala ezingezansi ugcwalise imusho eyizibalo  Kunamaqembu a ☐ oku 3 15 - 3 - 3 - ☐ - ☐ - ☐ = 0 15 ÷ 3 = ☐ Buka imidwebo ugcwalise umusho wezibalo:  Kunamadothi a ☐ esewonke kanti kunamaqoqo a △ amadothi a 3 iqoqo ngalinye. Ngakhoke: ☐ ÷ 3 = △	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.15 **Ukwahlukanisa**			Kunamadothi a ☐ sewewonke, kanti kunezinyanda/ amaqoqo 4 ezinamadothi ngayinye/ngalinye. Ngakhoke: ☐ ÷ 4 = △ Kopisha uqedele: 20 ÷ 2 = ☐ 20 ÷ ☐ = 10 20 ÷ ☐ = 2 21 ÷ 3 = ☐ 21 ÷ ☐ = 7 21 ÷ 7 = ☐ Ukuqonda imigomo yokwahlukanisa nga 1 ne 0 6 ÷1 = ☐ 8 ÷ 1 = ☐ 12 ÷ ☐ = 12 6 ÷ 0 = ☐ ☐ ÷ 4 = 0 1 ÷ 1 = ☐ 0 ÷ 7 = ☐ Ukusebenzisa,ukufunda nokuqala ukubhala: Okusele, insalela.... Ukubala izinsalela uma benza izibalo zokwahlula: 12 ÷ 5 noku- 2 insalela 2 23 ÷ 7 noku- 3 insalela 2 Ukuqonda ubudlelwano phakathi kokuphindaphinda nokuhlukanisa phakathi Ukuphendula izinhlobo zemibuzo elandelayo: Kopisha lelithebula elilandelayo.	

<table>
<tr><th>IZIHLOKO</th><th>IMIQONDO NAMAKHONO
OKUDINGEKAYO NGOKUPHELA KONYAKA</th><th>IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1</th><th>AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA</th><th>ISIKHATHI
(ngokwesifundo esingangehora nemizuzu engu 24)</th></tr>
<tr><td>1.15
Ukwahlukanisa</td><td></td><td></td><td>Gcwalisa uhla lokuphindanga - 4. Ubona yiphi iphetheni?
<table><tr><td></td><td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td></tr><tr><td>4s</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr><tr><td>2s</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>Ukuhlukanisa kabili ohleni ‘lokuphindwe 4 ukuthola izinombolo zohla oluphindwe ka 2.
Ubona yiphi iphethini?
Ukuqonda ukuthi ukwahlula kuphendulela ukuphindaphinda.
Ukubonisa lezizibalo zemisho ngemidwebo
4 x 5 = ☐ 20 ÷ 5 = ☐
12 x 4 = ☐ 48 ÷ 4 = ☐</td><td></td></tr>
</table>

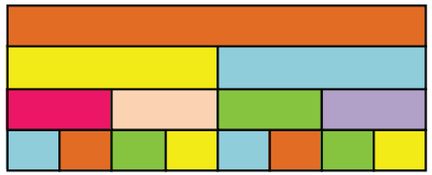
IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.16 **Izibalo zekhanda**	**Umqondo wezinombolo: Uhlu 999** • Ukuhlela iqoqo elinikiwe lezinombolo ezikhethekile. • Ukuqhathanisa izinombolo ukufika e 999 nokusho ukuthi yikuphi 1,2,3,4,5 noku 10 noma okumbalwa **Ukukhumbula Ngokushesha:** • Ukuhlanganisa namaphuzu okususa ukuya 20 • Ukuhlanganisa noma ukususa usebenzisa isiphindaphindi se10 ukusuka 0 ukuya 100 • Iziqinisekiso zokuphindaphinda nokwahlulwa kwe: - Ithebula lokuphindaphinda kabili ukufika 2 x 10 - Ithebula lokuphindaphinda kashumi ukufika10 x 10		**Izibonelo zemibuzo engase ibuzwe:** **Umqondo wezinombolot:** **Amagama ezinombolo kanye nezimpawu** Phakamisa ikhadi noma bhalaphansi igama lenombolo. Khetha umfundi ukuba abhale uphawu olumele inombolo oluhambisana nayo. **Okuningi noma kuncane kuno** Okungaphansi ngoku-1 kokwa- 900 Okuningi ngoku-1kokwa-899 Okuningi ngoku-2kokwa-702 Okuningi ngoku-2 kokwa- 405 Okuningi ngku-3kokwa- 477 Okuncane ngoku-3kokwa- 251 Okuningi ngoku-4 koklwa-868 Okuningi ngoku-4 kokwa- 967 Okuningi ngoku-5 kokwa- 729 Okuncane ngoku-5 kokwa- 685 Okuningi ngoku-10 kokwa- 490 Okuncane ngoku-10 kokwa- 660 Lubizwani uhlamvu lwesihlanu lwe Alfabethi? Ibizwani inyanga ye 9 yonyaka? **Ukulandelanisa nokuqhathanisa** Yikuphi okuningi: 621noma 671? Ngiphe noma iyiphi inombolo ephakathi kwe - 154 kanye 159.	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.16 **Izibalo zekhanda**	**Amaqhinga okubala** Ukusebenzisa amaqhinga alandelayo okubala: • Ukubeka inombolo enkulu kuqala ukuze ubale uqhubeka noma ubuyela emumva • Umugqa wezinombolo • Ukuphindaphinda nokuhlukanisa kabili • Ukwakha nokuhlakaza • Ukusebenzisa ubudlelwano phakathi kokuhlanganisa nokususa • Ukusebenzisa ubudlelwano phakathi kokuphindapkhinda nokwahlula		**Iziqinisekiso zokususa nokuhlanganisa:** • Ukwazi ngekhanda onke ambhondi ezinombolo okuhlanganisa nokususa ukufika 20. □ + △ = 20 □ + △ = 16 20 = □ - △ Isiqinisekiso sokuhlanganisa nokususa zonke izinombolo ukufika kanye nokufaka 20. 1 + 11 = 12 11 + 1 = 12 2 + 10 = 12 10 + 2 = 12 3 + 9 = 12 9 + 9 = 12 18 - 4 = 14 18 - 14 = 4 18 - 5 = 13 18 - 13 = 5 18 - 6 = 12 18 - 12 = 6 Ukukhumbula masishane ukuphindaphinda kokuhlanganisa ukufika e 20. Lokhu kufanele kufake iziqinisekiso ezihambela nokususa • 1 + 1 = 2 • 2 + 2 = 4 • 3 + 3 = 6 • 4 + 4 = 8 • 5 + 5 = 10 • 6 + 6 = 12 • 7 + 7 = 14 • 8 + 8 = 16 • 9 + 9 = 18 • 10 + 10 = 20	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.16 **Izibalo zekhanda**			Ngibonise inonmbolo engingayengeza ukuze ngenze ama-20. (ukubhala phansi noma ukusebenzisa isimelabungako kumafuladi khadi). • 8 • 2 • 9 • 15 • 3 Ngokhombise inombolo esele uma oku....kususwa ema-20 (bhala usebenzisa isimelibungako noma amafuladi khadi) • 5 • 18 • 0 • 14 • 7 **Amaqhinga okubala:** Ukusebenzisa amasu okubala ukuhlanganisa nokususa ngokufanelekile. Ukuhlanganisa izinombolo ezithile usebenzisa amaqhinga afana nalawa alandelayo: • Funa izinombolo ezihamba ngambili ezenza okuyi 10 uqale usebenzise lezi 2 + 7 + 8 2 + 8 kwenza 10 bese wengeza 7. Fakainombolo enkulu kuqala ngendlela efanele yokuqhubeka ubala ngokuya phambili noma uya emumva	

IZIHLOKO	IMIQONDO NAMAKHONO OKUDINGEKAYO NGOKUPHELA KONYAKA	IMIQONDO NAMAKHONO OKUGXILWE KUWO KU THEMU 1	AMANOTHI ACACISAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI (ngokwesifundo esingangehora nemizuzu engu 24)
1.16 **Izibalo zekhanda**			• Qala ngenombolo enkulu kakhulu 5 + 15 Phinda uchaze isibalo esiwumusho: 15 + 5 uqhubeke ubala ukufika 20 • Ukushintsha inombolo bese uyahlanganisa noma ususe 10 bese uyahlanganisa noma ususe oku-1 Isibonelo: 8 + 9 = 17 uchaze ukuthi umumuntu angase enze 8 + 9 = 8 + 10 - 1 6 + 11 = 17 uchaze ukuthi umumuntu angase enze 6 + 10 + 1 17 - 9 = 8 uchaze ukuthi umumuntu angase enze 17 - 10 + 1 • Ukwehlakaza inombolo ibe yizingxenye ezithile bese uyahlanganisa Ukwehlakaza nokwakha izinombolo: Isibonelo bala ngengqondo uchaze: Qhubeka wephule izinombolo zibe izicucu ezincane’ 8 + 12 = 8 hlanganisa (10 + 2) = 8 + 2 + 10 = 10 + 10 = 20 • Ukusebenzisa ukuphindaphinda njengesu lokubala ngengqondo Ukubona okusondele kuzinombolo eziphindwe kabili isib. 8 + 7 = 15 Ukuchaza ukuthi iyinombolo ephindwe kabili kwi-7 hlanganisa 1 noma okuphindwe kabili kwi-8 ususe oku-1 Ukubona ukuthi uma izinombolo ezimbili zisondelene ngobungako bazo kulula ukuthola umehluko ngokuqhubeka ubala uya phabili ungayi emumva. 17- 13 = 4 nokuchaza ukuthi ukubala uqhubeka usuka e-13 uya e-17 kukunika oku- 4	

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1.16 **Izibalo zekhanda**			Ezinye izibalo zekhanda zingenziwa ngaphandle kwezinsiza, kodwa kuvalme ukuba wusizo ukwenza izibalo zengqondo ngokusebenzisa izinsiza. **Izinsiza ezinconyiwe/ ezingase zisetshenziswe** • Umungqa wezinombolo (ohleliwe nongenalutho) • Uphahla lwezinombolo • Isimelabungako (amafladi khadi) • Ubuhlalu bokubala	
1.17 **Amaqhezu**	• Ukusebenzisa nokubiza amaqhezu esimweni es-ejwayelekilese nokum-bandakanya izingxenye, iqhezu kokune, iqhezu kokuyisishiyagalom-bili iqhezu kokuthathu, iqhezu kokuyisithu, iqhezu kokuhlanu • Ukubona iziqhezu ngen-lela yemibhalomidwebo • Ukuqala ukubona ukuthi izingxenye ezimbili noma iqhezu kokuthathu kwenza okukodwa okuphelele nokuthi in-gxenye eyodwa nokubili kokune kuyalingana • Ukubhala amaqhezu njengengxenye, noma amaqhezu amabili kwamathathu.		Ekupheleni kwethemu abafundi kumelele bakwazi: • Ukubona amaqhezu emifanekiso nokugcizelela ukuqonda kwabo ukuthi izingxenye kufanele zilingane ngobungako bazo. • Ukwazi ukuthi amaqhezu amane enza okuphelele nokuthi iqhezu kokune ngalinye kufanele lilingane; • Ukuthola amaqhezu amaqoqo ezinsiza; • Ukufunda nokubhala amagama amaqhezu; • Nokuhlela; ukuchaza; nokuqhathaniswa kwamaqhezu. Ekupheleni kwethemu abafundikumele baqonde amaqhezu njengengxenye yokuphele, futhi bakwazi ukupphendula imibuzo efanayo nale: • izingxenye = okukodwa okuphelele • ingxenye kokunequarters = okukodwa okuphelele • ingxenye kokuthathu = okukodwa okuphelele • izingxenye = okukodwa okuphelele • okukodwa kokuhlanu = okukodwa okuphelele • okukodwa kokuyisithupha = okukodwa okuphelele Ukuphendula imibuzo efana nalena elandelayo: Uma umfanekiso wahlukaniswe ngezingxenye ezi 2 ezilinganayo, lezingxenye sizibiza___ Uma umfanekiso wahlukaniswe ngezingxenye ezi 3 ezilinganayo, lezingxenye sizibiza ___	

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			Uma umfanekiso wahlukaniswe ngezingxenye ezi ____ ezilinganayo, lezingxenye sizibiza amaqhezu kokune. **Ukukwazi ukuqhathanisa ubungako bamaqhezu**  Ingabe ingxenye eyodwa yinkulu noma incane kunamaqhezu amathathu kokune? Amaqhezu amangaki kokune afana nokukodwa okuphelele? Amaqhezu amangaki kokuyisishiyalombili afana nokukodwa okuphelele? Ingabe okubili kokune kuyalingana nengxenye eyodwa kokubili? Thola amaqhezu ezinto ezithile ezifanayo. Kunobuhlalu o 12. 8 obupinki no 4 obumhlophe. Yingxenye engakanani yobuhlalu emhlophe?	

ITHEMU YESI-4 YEBANGA LESI-3 2 AMAPHETHINI, UBUDLELWANE NE-ALJEBHRA				
IZIHLOKO	**UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI ESINQUNYIWE** (esifundweni sehora eli 1 nemizuzu engama 24)
2.1 **Amaphethini ez-isambalomdwebo**	**Ukopisha,ukwandisa nokuchaza** Ukukopisha, wandise beseuchaza ngamagama • amaphethini alula enziwe ngezinto eziphathekayo • amaphethini alula enziwe ngokudweba imigqa,izimo noma izinto **Bayenza bachaze amaphethini** Bayenza bachaze amaphethini abo asejiyometri • ngezinto eziphathekayo • ukudweba imigqa,izimo noma izinto. **Amaphethini asizungezile** Ukukhomba,uchaze ngamagama nokukopisha amaphethini asejiyometri • imvelo • kusukela esikhathini samanje esiphila kuso • kusukela kumagugu namasiko	**Amaphethini asizungezile** • imvelo • kusukela esikhathini samanje esiphila kuso • kusukela kumagugu namasiko	Abafundi bazosebenza ngamaphethini kusukela kwimvelo, isikhathi samanje esiphila kuso nangamagugu namasiko ethu kusuka eBangeni 1 kuya eBangeni 6.Lokhu kusho ukuthi asho isidingo sokuchtha isikhathi esiningi wenza lesisihloko.Kumele uthisha akhethe imisebenzi namaphethini afanele lelobanga. Enye yamaphethini okumele bawabone yiwo umgqa ohlukanisa into kabili ilingane, isib, amaqabunga amaningi nezilwane kunobuso obuhlukaniseka kabili obufana nse.Kanjalo nezinambuzane eziningi uma uzibuka ngaphezulu, namaphethini ezinyoni eziningi uma uzibuka ngaphansi. EBangeni -3 kunokugxila ekutholeni umugqa ohlukanisa into kabili ilingane nse ngokugoqa iphepha bese besho ukuthi bayithole kanjani.Abafundi benza amaphethini besika izimo ngephepha eligoqiwe.Kungaqhutshekwa kwenziwe onodoli, izimoto, izikebhe namakhathoni ngamaphethini askiwe asenamathiselwa.Abafundi sebengakubuka bakhulume ngamaphethini abawathole konodoli nasezithombeni. Ezinamaphethini bese ziyasikwa kwakhiwe kuhlotshiswe ngawo. Abafundi babuka amaphethini kulokhu- • uthango (ucingo,izingodo noma udonga); • umsebenzi wezitini namathayizi aphansi; • ukufulela; • okokugqoka nezindwangu; • amapuleti,izinkomishi, namasosi; • amabholaa okudlala; • izilwane njengezinkomo uvemvane,idube, indlulamithi,ingwe,izinyoni.izinambuzane njll. • Izimbali namacembe; • Amaphepha odonga,amaphepha odonga enziwe ngokubhaliwe okutholakala ngaphakathi ezindlini nasemkhukhwini • Okwamasiko okwesikhathi samanje • Amabhodwe enziwe ngobumba noma obhasikidi abalukwayo.	isifundo 1 l

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
2.1 **Amaphethini ez-isambalomdwebo**			**Bangawachaza kanjani amaphethini abawabona lapho behlala khona?** Kunezindlela ezehlukene zokuchaza amaphethini abawabonayo lapho behlala khona.Amaphethini amaningi asizungezile akhiwe ngemigqa,izimo noma izinto.Izinto noma izimo akudingi ukuba kufaniswe nezimo ezisejiyometri konhlangothimbili -2-D.noma izinto ezingonhlangothintathu 3-D uma usebenza neBanga 2.Bonke abafundi ababone lapho • Iphindeka kanjani isib.. • Imigqa eqondile enquma komunye (njengendwangu yetafula),imigqa lehamba ngezansi kwendwangu noma inqume eshethini,imigqa le ehamba iye phezulu ebhulukweni' • Imigqa egobile njengemigqa esandilinga ebonakalayo uma usika u-anyanisi; • Imigqa engaqondile njengemigqa emunweni wakho nedube elimthende, nend-lovu, imvubu nabantu asebegugile. • imigqa emazombezombe oyithola ngesikhathi usika iklabishi noma uyithola esihlabathini ekade sipheshulwa umoya.; • amadothi anobungako obulinganayo, amadothi asakazeke yonke indawo; • izimo ezinobungako obulinganayo; • izimo ezinemibala efanayo • amaphethini akhiwe izimo ezehlukene,izimo ezakha amaphethini ngokwemi-bala ezisesikhumbeni sendlulamithi	

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
2.2 **Amaphethini ezinombolo**	**Ukopisha,wandise bese uyachaza** Ukukopisha wandise bese uchaza ukulandelana okulula kwezinombolo okungenani 200 **Bayenza bachaze amaphethini abo** Bayenza bachaze amaphethini ezinombolo zabo	**Ukopisha,wandise bese uyachaza** Ukukopisha,wandise nokuchaza ukulandelana kwezinombolo ezilula okungenani 1000 Ukulandelana kumele kutshengise lokhu • bala nga-1-usuka ku-noma yiyiphi inombolo ephakathi -kuka-0 ne-1 000 • bala nga-10-kusuka kunoma yiyiphi inombolo ephinda nge-10 phakathi -kuka-0 ne-1 000 • bala nga-5-kusuka kunoma yiyiphi inombolo ephinda nge-5 phakathi kuka-0 ne-1 000 • bala nga-2-usuka ku-noma yiyiphi inombolo ephakathi -kuka-0 kuya ku-1 000 • bala nga-100 usuka ku-100 uya1 000 • bala nga-50 usuka ku-50 uya 1 000 • bala nga-25 usuka ku-25 uya 1 000 • bala nga-20 usuka ku 20 uya 1 000	Bheka amanothi kathemu 1. Yandisa ukulandelana ufake lokhu • bala nga-1 usuka kunoma yiyiphi inombolo ephakathi kuka 0 no 1 000 • bala nga-10 phakathi kuka 0 no 1 000 • bala nga-5 phakathi kuka 0 no 1 000 • bala nga-2 phakathi kuka 0 no 1 000 • bala nga-100 phakathi kuka100 no 1 000 • bala nga-50 phakathi kuka 50 no 1 000 • bala nga-25 phakathi kuka 25 no 1 000 • bala nga-20 phakathi kuka 20 no 1 000 Sebenzisa izinto,izithombe, amathebula nomdwebo oxhumanayo ukulekelela abafundi ukudlulela ekubaleni ngokweqa izinombolo nokulandelanisa okuholela ukuphindaphinda kwezinombolo-10, 5, 2, 4, 3.	3 izifundo

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
2.2 **Amaphethini ezinombolo**		**Ukwenza nokuchaza amaphethini abo** Ukwenza nokuchaza amaphethini abo • izikhawu ezinikiwe eBangeni 2 kwengeza izinhla zezinombolo • bala ngo- 20,25, 50,100 uze ufike ku-1000		

ITHEMU YESI-4 YEBANGA LESI-3 3. INDAWO NESIMO (IJIYOMETRI)				
IZIHLOKO	**UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI ESINQUNYIWE** (esifundweni sehora eli 1 nemizuzu engama 24)
3.2 **3-D izinto ezinhlan-gothintathu**	**Uhla lwezinto** Bona usho ngamagama izinto ezinhlangothintathu 3-D ezilapha ekilasini nezithombe • Isimo sebhola • (Okusambulunga,) • Izimo ezisabhokisi (iprizimu) • Amasilinda • amakhoni **izimpawu zalezozinto** ukuchaza,uhlele, nokuqhathanisa izinto ezinhlangothintathu-3-D kanje;: • izimo ezinhlangothim-bili-2-D lezo ezenza ubuso bezinto ezin-gonhlangothintathu-3-D • ingaphezulu lendawo eyisicaba negobile	**Uhla lwezinto** Bona usho izinto ngamagama ezinhlang-othintathu 3-D ezilapha ekilasini nezithombe • Isimo sebhola • (Okusambulunga,) • Izimo ezisabhokisi (iprizimu) • Amasilinda • amakhoni **izimpawu zalezozinto** ukuchaza,uhlele, nokuqhathanisa izinto ezinhlangothintathu-3-D kanje: • izimo ezinhlangothim-bili-2-D lezo ezenza ubuso bezinto ezin-gonhlangothintathu-3-D • ingaphezulu lendawo eyisicaba noma ego-bile	Bheka amanothi kaThemu 2. Kulethemu bangenza, babukeze, nokuhlanganisa nomsebenzi wezinto ezingonh-langothintathu 3-D-ngokomsebenzi obhalwayo. Ukugxila nokubuka bese uzibiza ngamagama • Isimo sebhola (Okusambulunga,) • Izimo ezisabhokisi (iprizimu) • Amasilinda (cylinder) • Amaphiramidi (pyramids) • amakhoni; (cones) Uma zivezwe esithombeni sombalomdwebo noma ezintweni nsukuzonke. Imibuzo okufanele abafundi bagxile kuyona: • ukuthi ingaphezulu blezinto ligoqene noma liyisicaba; noma • ukuthi ingaphezulu eliyisicaba lezinto lingonxantathu, nxande, isikwele, izindil-inga.	isifundo1

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
3.2 **3-D izinto ezinhlan-gothintathu**	**imisebenzi okugxilwe kuyo** • Ukubuka nokwakha izinto ezinhlangothintathu-3-D usebenzisa izinto eziphathekayo njengo okusikwe izimeni ezinhlangothimbili-2-,D,ubumba, izinti zokuvungula,izinti zokumunca, nozinye izinto ezinhlangothintathu -3-D			
3.4 **okufana nse nxazombili**	**okufana nse nxazombili** • Bona udwebe umugqa ohlukanisa into kabili ilingane ezimweni ezisambalomdwebo nezingezona izibalomdwebo konhlangothimbili -2-D	**okufana nse nxazombili** • Bona udwebe umugqa ohlukanisa into kabili ilingane ezimweni ezisambalomdwebo nezingezona izibalomdwebo konhlangothimbili-2-D	Umsebenzi womugqa ohlukanisa into kabili ilingane ngokugoqa iphepha wenziwa kuthemu 2, kuzosiza abafundi bakhombe umugqa ohlukanisa izinti zilingane emidwebeni yezinto ezisambalomdwebo nokungezona ezisambalomdwebo. Umsebenzi obhalwayo mawube nalezizibonelo lapho- • Umugqa ohlukanisa into kabili mawungabi wosuka phezulu noya phansi kuphela • Kunemigqa eminingi ehlukanisa into kabili esmeni nasezintweni.	Isifundo 1

ITHEMU YESI-4 YEBANGA LESI-3 4. ISILINGANISO				
IZIHLOKO	**UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI ESINQUNYIWE** (esifundweni sehora eli 1 nemizuzu engama 24)
4.1 **ISIKHATHI**	**Ukukhuluma ngesikhathi** • ukufunda izinsuku ekhalendeni • beka izinsuku izokuzalwa, imigubho yezenkolo, amaholide,izigameko zomlando izehlakalo zekilasi ekhalendeni. • Ukukhuluma ngesikhathi ngamahora angu -12 - amahora - uhhafu wehora - ikota yehora - amaminithi ewashini elinezinti nelinezinombolo nokunye okungamathulusi angatshengisa isikhathi isib. Iselifoni. **ukubala ubude besikhathi nokudlula kwaso** sebenzisa ikhalenda ubala nokuchaza ubude besikhathi ngezinsuku noma ngamasonto noma ngezinyanga ufake nalokhu	**Ukukhuluma ngesikhathi** • ukufunda izinsuku ekhalendeni • beka izinsuku izokuzalwa, imigubho yezenkolo, amaholide,izigameko zomlando izehlakalo zekilasi ekhalendeni. • Ukukhuluma ngesikhathi ngamahora angu -12 - amahora - uhhafu wehora - ikota yehora - amaminithi ewashini elinezinti nelinezinombolo nokunye okungamathulusi angatshengisa isikhathi isib. Iselifoni. **ukubala ubude besikhathi nokudlula kwaso** sebenzisa ikhalenda ubala nokuchaza ubude besikhathi ngezinsuku noma ngamasonto noma ngezinyanga ufake nalokhu	Abafundi bayaqhubeka nokwenza bekhuluma ngobude besikhathi nokulandelana kwaso . Ngeskhathi sokufundisa ikilasi lonke nokugxila emaqenjini,abafundi abaqhubeke bakhulume ngezinsuku zeviki,ngezinyanga zonyaka nosuku namhlanje, kanjalo nezinsuku ezdlule nezizayo.Abafundi baqhubeke ukubeka izigameko ezilandelayo ekhalendeni; • izinsuku zokuzalwa; • imigubho yezenkolo; • izigameko zomlando; • izehlakalo zesikole • amaholide. Qhubeka ucele abafundi bakhulume ngesikhathi, ngezikhawu ezejwayelekile nsukuzonke; • ngamahora namaminithi ewashini lezinombolo,noma • ngamahora, uhhafu wamahora, kanye nekota yamahora usebenzisa amawashi anezinti. Isibonelo; abafundi.bangacelwa ukuba bakhulume ngesikhathi uma isikole siqala, ngezikhathi sekhefu nasemakhaya noma beshintsha izifundo.Khetha izikhathi lapho iwashi litshengisa ihora noma uhhafu wehora noma ikota yehora. Kuyasiza ukuba newashi elikhulu lokubukisa ekilasini, yilapho abafundi bezokhomba khona isikhathi.Abafundi bangenza eyabo imifanekiso yamawashi Angacela abafundi batshengise izikhathi ezehlukene kuhlangene nokubala isib. Ngitshengise ihora le10. Ubani isikhathi ikota nohhafu ngaphambi kuka10? Ngesikhathi sokufunda ngokuzimela abafyndi abaqhubeke bazijwayeze ukukhuluma ngesikhathi. • ngamahora iuhhafu wehora,nekota yehora, ewashini elinezinti • ngamahora nangaminithi ewashini lezinombolo.	Izifundo2

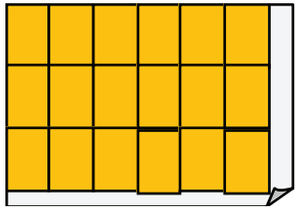
IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
4.1 ISIKHATHI	• shintsha iznsuku namasonto • shintsha phakathi kwamasonto nezinyanga ukusebenzisa iwashi ubala ubude besikhathi ngamahora /ngohhafu noma amakota	• shintsha iznsuku namasonto • shintsha phakathi kwamasonto nezinyanga ukusebenzisa iwashi ubala ubude besikhathi ngamahora /ngohhafu noma amakota	Abafundi benza izibalo ngamasontonoma izinsuku uma benikiwe ikhalenda noma ingxenye yekhalenda isib.thola izinsuku nokubala isikhathi nokubona umehluko phakathi kwazo. **Bafunda imizuzu ewashini lezinti** **C**hitha isikhathi ngezifundo ezi-2 ugxilisa ngokuhlanganisa amakhono okufunda imizuzu ewashini lezinti Bheka amanothi kathemu 3.	
4.2 UBUDE	**Isilinganiso esingahlelekile** • Hlawumbisela ulinganise, uqhathanise, uhlele bese ubhala ubude usebenzisa isilinganiso esingalinganisiwe isib, isandla, amanyathelo, ubudebepensela, ikokubala.njll. • Chaza ubude bezinto ngokubala uqala ngokuqagela ukuthi bungakanani ubude bamayunithi angahleliwe • Sebenzisa ulimi ukhuluma ngokuqhathanisa isib, kude xaxa, kufishane xaxa, kuphakeme xaxa, kubanzi xaxa njll.		Zonke izinhlobo zokulinganisa ubude ezisohlweni zingenziwa ngesikhathi sokuzmela ngethemu yonke.Umsebenzi wonke mawubhalwe.	

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4.2 UBUDE	**Ukwethula isinganiso esihleliwe** • Ukuhlawumbisela ulinganise, uqagele,uhlele bese ubhala ubude ngamamitha (kungaba amamtha ngezinduku noma ubude bentambo ngamamitha) ngesilinganiso esihleliwe sobude • Ukuhlawumbisela nokulinganisa ubude ngamasentimitha usebenzisa irula Alukho uguquko olungenziwa phakathi kwamamitha namasentimitha.			

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
4.3 **ISISINDO**	**Isilinganiso esingahlelekile** • Ukuhlawumbisela ulinganise, uqhathanise uhlele bese ubhala isisindo usubenzisa isilnganisa esingalinganisiwe. Nokuzimelela isib, amabhuloki, izitini njll, • Ukusebenzisa ulimi ukhuluma ngokuqhathanisa, isib, kulula, kuyasinda, kulula xaxa, kuyasinda xaxa U**kwethula isinganiso esingahlelekile** • Qhathanisa uhlele bese ubhala ukukhangisa ngesisindo sazosibe siveziwe ephaketheni ngokwamakilogramu isib amakilogramu ama 2 erayisi,ne1 kilogramu likafulawa • ISILINGANISO izisindo zabo ngokusebenzisa isikali sasendlini yokugeza.	**Ukwethula isilinganiso esihleliwe** Abafundi benza umsebenzi obbhalwayo bewuhlanganisa nokufunda izithombe - • Imiphumela yesisindo ebhalwe kuyo • Iisisindo sezithombusebenzisa isikali sasendlini yokugeza, lapho uthi lukhomba inombolo eseduze kolayini.	Ukuhlanganisa umsebenzi owenziwe ngesisindo unyaka wonke, ababfundi abenze umsebenzi obhalwayo lapho - To consolidate the work done on mass throughout the year, learners should do written exercises in which they • Bezofunda izithombe ezizovumela ukuba baqhathanise izisindo zezinto lapho kuvezwe khona kusilinganiso esizimelele; • Bezofunda izithombe lezo ezizovumela izisindo ezibhalwe kulezozinto kusilinganiso esizimelele, ngokusebenzisa amayunithi angenasilinganiso ukuqhathanisa; • ukuqhathanisa;uhlele,bese ubhala lokho okutholile - izithombe zegilosa ezinesisindo esibhalwe ngamakilogramu; - izithombe zegilosa ezinesisindo esibhalwe ngamagramu - ukufunda izithombe zesikali sasendlini yokugeza sitshengisa okusondelene nekilogramu liphelele Bheka amanothi kathemu 2. **Isilinganiso somthamo njengesimo esejwayelekile sokuxazulula izinkinga nokubala** Esikhathini esimiselwe iziNombolo ukuSebenza noBudlelwano bazo abafundi sebengaxazulula izinkinga besebenzisa isimo esjwayelekile ngoku; • Isilinganiso esingahlelekile sesisindo • Isisindo ngamakilogramu • Isisindo ngamagramu Bhekisisa ukuthi ithemu inohlelo lwezinombolo ezifanele lona;kanjalo nohlobo lwezinkinga oluhlukene kwaleyo themu	isifundo1

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
4.4 UMTHAMO	**Isilinganiso esingahlelekile** • Uhlawumbisela nokulinganisa, ukuqhathanisa nokuhlela umthamo wesitsha esingawumumatha (isitsha esngakumumatha uma sigcwalisiwe) noma okumumethwe isitsha ngokusebenzisa isilinganiso esingalinganisiwe isib. isipuni namankomishi • Ukuchaza umthamo wesitsha ngokubala ukuthi mangaki amayunithi angahleliwe angagcwaliswa, kulesositsha isib. ibhodlela lingagcwala izinkomishi ezi-4. **Ukwethula isilinganiso esingahlelekile** • Ukuhlawumbisela ulinganisa, uqhathanisa, uhlele bese ubhala lowomthamo waleyonto ngokulinganisa ngamalitha,uhhafu welitha nekota yelitha.	**Ukwethula isilinganiso esihleliwe** Abafundi babhala imisebenzi ngokuhlanganyela nokufunda izithombe; • Imiphumela ngomthamo obhaliwe kuwo ngokuhlela ngokulandelana okuhleliwe • Izithombe zojeke lapho umthamo usondezelayo kumalitha noma amalitha amabili kulayini obhaliwe noma uhhafu wamalitha noma ikota yamalitha • Izithombe zojeke lapho umthamo useduze kwenombulo yamamililitha kulayini obhaliwe.. Okulindelekile ukuthi abafundi bazofunda inombolo leyo ebhaliwe Ukuchaza umthamo njengokuthi cishe ku... (gcwale,ngaphansi, ngaphezulu njll) befunda inombolo ebhaliwe kujeke. Alukho uguquko phakathi kwamamililitha namalitha	Ngeskhathi sokusebenza ngokuzimela abafundi bangaqhubeka ngoku- • Ukuhlawumbisela nokulinganisa, baqhathanise, bahlele bese bebhala umthamo wesitsha noma okumumethwe yisitsha leso usebenzisa isilinganiso esingalinganisiwe. • Ukuqhathanisa nokuhlela umthamo wamabhodlela ahlukene nohla lwezinto ozozithenga lapho umthamo azokhangisa ngawo ephaketheni lelo. • Ukusebenzisa i-1litha lamabhodlela, noma 1ilitha lojeke ukuqagela nokulinganisa uqhathanisa ubhala umthamo wezitsha noma okumumethwe yilezo zitsha ngamalitha. Bheka amanothi kuthemu 3 Abafundi kumele banikwe umsebenzi obhaliwe ohlanganisa nokufunda izithombe nge- • Imiphumela yomthamo obhaliwe kuwona ukuze kuhlelwe ngokulandelana kwayo • Izithombe zojeke lapho umthamo usondelene nenombolo 1 yelitha noma 2 wamalitha kulayini obhaliwe Okulindelekile ukuba abafundi bodwa bafunde inombolo eseduze kolayini.Lokho kuchaza ukuthi umthamoo (cishe ugcwale.ngaphezulu ngaphansi.kancane, noma kuyalingana ngamalitha) befunda ojekeni. **Isilinganiso somthamo njengesimo esejwayelekile sokuxazulula izinkinga nokubala** Esikhathini esimiselwe iziNombolo ukuSebenza noBudlelwano bazo abafundi sebengaxazulula izinkinga besebenzisa isimo esjwayelekile ngoku; • Isilinganiso esinahleliwe somthamo nokumumethwe isib. Ugogo usebenzisa izinkomishi ezi 2 zobisi ukwenza uphudingi uma engaziphinda kabili izinlto azisebenzisile, angadinga ubisi olungakanani? • Amalitha • amamililitha Bhekisisa ukuthi ithemu inohlelo lwezinombolo ezifanele lona;kanjalo nohlobo lwezinkinga oluhlukene	isifundo1

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
4.4 **UMTHAMO**	• Ukuqhathanisa nokuhlela, nokubhala ngokukhangisa umthamo waso siveziwe ephaketheni ngokwamalitha isib. Amalitha ama-2l obisi, ilitha 1yobisi, amalitha ayi-5l kapende,noma ngamamililitha. isib.amamililitha anga-500ml obisi,amamililitha anga-340ml wesiphuzo esibandayo, amamililitha anga-750ml kawoyela. • Ukwazi ukuthi inkomishi elingene ingamililitha anga-250ml. • Ukwazi ukuthi ithisipuni ingamamililitha angu-5ml Alukho uguquko oludingakalayo phakathi kwamamililitha namalitha			

IZIHLOKO	UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA	UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1	AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA	ISIKHATHI ESINQUNYIWE (esifundweni sehora eli 1 nemizuzu engama 24)
4.5 **IPerimitha nenga-phezulu lendawo**	**iPerimitha** • Ukucwaninga ngobude bezinto ezingaba-onhlangothimbili- 2-D nonhlangothintathu usebenzisa intambo. **Ingaphezulu lendawo** • Ukucwaninga ingaphezulu lendawo usebenzisa amathayela.	**Isizinda** Ukucwaninga ingaphezulu lendawo usebenzisa amathayela.	Abafundi bayethulwa okokuqala ekulinganiseni ingaphezulu lendawo eBangeni 3.EBangeni 3 naseZingeni eliphakathi yilapho kuphela isizinda silinganiswa ngokungahlelekile. Abafundi bathola ukuthi zingaki izimo noma izinto ezingavala ingaphezulu lendawo.Bapakisha izimo noma izinto ngaphandle kokushiya izikhala phakathi kwezimo nezinto.Sebezobala basho ukuthi zingaki izimo ezivale lelingaphezulu lendawo. Isib. Abafundi bangapakisha izikwele noma onxande phezu kwekhasi,bese beyabala ukuthi zingaki izimo ezivale ikhasi.Abafundi bazosho ukuthi ingaphezulu lendawo yekhasi ithathe izimo ezingako isib.ikhasi linengaphezulu lendawo enonxande aba-16 Kunokwenzeka ukuthi izimo zingakwazi ukugcwalisa ikhasi lonke njengoba kwenziwe ngezansi  Abafundi sebengasho ukuthi ubungako bekhasi ngokunakisisa.isib.Ingaphezulu lendawo yekhasi inonxande abayi-18 ngaphezulu kodwa bancane ngabangu-28. Yenza abafundi bafake amathayela kulelingaphezulu lendawo besebenzisa izimo ezehlukene nangezimo ezifanyo ezehluke ubungako.Lokhu kuzokwenza abafundi babone ukuthi- • Isimo esincane,uma zizininginingi zingalingana ukuvala kulelongaphezulu lendawo. Uma isimo sisincane kakhulu, maningi amathuba wokuthi kungene izimo eziningi phezulu kwendawo; • isimo osikhethile singayshintsha indlela obubale ngayo Akulindelekile ukuthi abafundi bakale ingaphezulu lendawo ngokubala ngezikwele phezu kwegrid yesikwele; lokhu kuyokwenziwa emaZingeni aPhakathi	izifundo2

ITHEMU YESI-4 YEBANGA LESI-3 5. ULWAZI OLUQOKELELWE				
IZIHLOKO	**UKUQONDA OFUNDWAYO NAMAKHONO ADINGEKAYO NGOKUPHELA KONYAKA**	**UKUQONDA OKUFUNDWAYO NAMAKHONO ABHEKWA NGETHEMU 1**	**AMANOTHI ACHAZAYO NOMA UMHLAHLANDLELA WOKUFUNDISA**	**ISIKHATHI ESINQUNYIWE** (esifundweni sehora eli 1 nemizuzu engama 24)
5.4 **Ukuqoqa nokuhlela ulwazi**	**Ukuqoqa nokuhlela** • ukuqokelelwa kolwazi ngkilasi noma ngesikole ukuphendula imibuzo ezobuzwa uthisha. • Ukuhlela ulwazi olunikwe uthisha noma incwadi. • Ukuhlela ulwazi; - uhla - amathali - amathebula			
5.5 **Ukubhala okumele ulwazi**	**Ukubhala okumele ulwazi** Ukubhala okumele ulwazi • igrafu yezithombe • ibhagrafu			
5.6 **Ukuhlaziya nokuhumusha ulwazi**	**Ukuhlaziya nokuhumusha ulwazi** Ukuphendula imibuzo ngolwazi olunikiwe • igrafu yezithombe • ibhagrafu	Ukuhlaziya ulwazi ngokubhala okumele ulwazi okunikiwe	Kulelizinga abafundi kumele ngabe sebebonisiwe zonke izimo zolwazi oludingakalayo eBangeni 3 (uhla, amathali, igrafu yezithombe, ibhagrafu) kuyancomeka ukuba ngethemu 4 kugxiliswe ekuhlaziyeni ulwazi. Ubanika ulwazi lokuhlaziya okungenani- • igrafu yezithombe e-1 • nethebula elilodwa. Abafundi baphendula imibuzo leyo ebuzwa uthisha mayelana negrafu nethebula,bheka uthemu 1 nemibuzo efanele	Isifundo 1

INGXENYE YE - 4: UKUHLOLA

4.1 ISINGENISO

Umsebenzi wokuhlola uwuhlelo oluhleliwe oluqhubekayo lokukhomba, ukuqoqa, kanye nokuhumusha ulwazi ngokusebenza kwabafundi, usebenzisa izindlela ezahlukene okubandakanya izinhlobonhlobo zokuhlola.inezinyathelo ezine:

- ukulungiselela nokuqoqa ubufakazi bomphumela,
- ukuhlolwa kobufakazi,
- ukubhala okutholiwe kanye
- Nokusebenzisa lolulwazi ukuqonda okusiza ekuthuthukiseni abafundi ukuze benze kangcono ohlelweni lokufunda nokufundisa.

Ukuhlola kufanele kubengezindlela ezimbili ngokuhleliwe (kuhlolwa ukufunda) kanye nokungahlelekile (kuhlolwa ukufunda).kuko kokubili kufanele abafundi baziswe ngokutholiwe ukwandisa ulwazi lokufunda izibalo.

Kumabanga aphansi amaqhinga asemqoka okuhlola ngokuhlelekile kanye nokungahlelekile ukuhlola ngokubhekwa kwabafundi nguthisha, izingxoxo, ukubonisa ngokwenza kanye nokubhaliwe.

EBangeni R ukuhlolwa kufanele kube ngezingxoxo kanye nokubonisa ngokwenza.

4.2 UHLOLA NGONGAKUHLELEKILE /UKUHLOLA KWANSUKUZONKE

Ukuhlolwa kokufunda kuwuhlelo oluqhubekayo lokuqoqa ulwazi ngokuphumelela komfundi.Ukuqhapha inqubekelaphambili yabafundi nsukuzonke kungukuhlola okungahlelekile,lokhu kwenzeka ngokubhekwa kwabafundi nguthisha,izingxoxo,ukubonisa ngokwenza kanye nokuxhumana okungahlelekile kwasekilasinil.lokhu akufanele kubonwe njengohlelo olwahlukile emisebenzini efundwayo ekilasini.ukuhlola okungahlelekile kwenza uthisha akwazi ukuqapha inqubekelaphambili yabafundi kanye nezinhlelo zokufundisa zosuku.Ukuhlola okungahlelekile kusetshenziswa:

- ukwaziswa kwabafundi ngokutholiwe
- ukukwazi ukuhlelela ukufundisa

Ngezinye inkathi uthisha angagcina uhla lokubheka abafundi (checklist) azobhala kulo akuthola ngesikhathi ehlola inqubekelaphambili yabafundi, uthisha nabafundi bangamaka umsebenzi owenziwe.ukuhlola okungahlelekile akuyona ingxenye yokuhlola okuhleliwe.imiphumela yokuhlola okungahlekile okwenziwa nsukuzonke akusetshenziselwa ukuphumelela komfundi.

4.3 UKUHLOLA OKUHLELEKILE

Yonke imisebenzi yokuhlola kuhlelo lonyaka ithathwa njengokuhlola okuhlelekile.umsebenzi wokuhlola ohlelekile umakwa uphinde ubhalwe ngokuhlelekile nguthisha.lusetshenziselwa ukuphumelela nokudluliselwa kwabafundi eBangeni elilandelayo.

Ukuhlola okuhlelekile kunika othisha ulwazi oluzokwenza akwazi ukubona inqubekelaphambili yabafundi eBangeni kanye nasesifundweni.

Uthisha angabheka abafundi abayishumi ngesikhathi ngakho ke umsebenzi wokuhlola okuhlelekile ungenziwa ngamaqoqo amancane, kungathatha izinsuku ezimbalwa ukuhlola ikilasi lonke.zonke izinto zokusebenza eziphathekayo kufanele zibekhona njengokujwayelikele,(izinto zokubala eziphathekayo,ishadi lezinombolo njll.)

Ukuhlola okusetshenziswayo kufanele kuhambisane neminyaka kanye nokukhula komfundi.

Ukuhlola kufanele kubhekelele ukukhula kwamazinga okucabanga namakhono abafundi.ukwakhiwa kwalomsebenzi wokuhlola kufanele kufake ulwazi olufundiwe ngezindlela ezahlukene.

Izinhlobo ezahlukene zokuhlola (ukubhekwa kwabafundi, izingxoxo, okwenziwayo kanye nokubhalwayo) kufanele inike umfundi ithuba lokukhombisa angakwazi ukukwenza, abanye abafundi bakhombisa ukwazi ngezindlela ezahlukene.Isib.

- abanye abafundi abakuthola kulukhuni ukufunda bayazazi izibalo
- Abanye abafundi bangaba ngaphansi kwezinga elilindelekile lokukhula ngolimi lokufunda nokufundisa.

Umsebenzi wokuhlowa awube izibalo ezingancikile olimini nasekufundeni.

Uthisha makaqonde ukuthi yini okuhlolwayo.ulwazi lwezibalo namakhono angahlolwa ngezindlela ezahlukene. izinhlobo ezahlukene zokuhlola zilungele ulwazi namakhono kwizihloko ezahlukene ngokweminyaka ehlukene yabafundi.kuyasiza ukusebenzisa uhlu lokubheka ukusebenza kwabafundi ukubona ukukhula kwabo olwazini lwezibalo emabangeni aphansi.iRubric ingasetshenziswa ukuhlola amakhono abafundi ekuxazululeni izinkinga zezibalo.

4.4 UHLELO LOKUHLOLA UKUHLOLA OKUHLELEKILE

Ngezansi kunezindlela ezihleliwe zokuhlola okuhlelekile kwezibalo kumaBanga 1 - 3:

IBANGA	ITHEMU1	ITHEMU2	ITHEMU3	ITHEMU4	ISAMBA
1	2	2	2	1	**7**
2	2	2	2	2	**8**
3	2	3	3	2	**10**

Othisha bayagqugquzelwa ukwenza ukuhlola kokuqala okuyisisekelo kweThemu yoku-1. Imiphumela yabafundi yokuhlola kokuqala ingasetshenziselwa ukubekwa kwabafundi ezingeni labafundi, makusetshenziselwe ukukala izinga lomsebenzi ekungaqala ngawo ukufundiswa nezingxenye zomsebenzi ezidinga isikhathi esiningi.abafundi bakhula ngokwamazinga ahlukene abanye abafundi bathatha kancane ekuqaleni kodwa ngokuqhubeka kwesikhathi bayakwazi ukuba sezingeni elilindelekile ezibalweni.

Ukuhlola okuhlelekile kwezibalo kufaka ngaphezu kwesihloko esisodwa ezibalweni;kufanele onyakeni kufanele ufake lonke ulwazi lwezibalo nezihloko,akuyikho konke okufakiwe kuhlelo lwezifundo okuhlolwa ngokuhlelekile noma kubhalwe ngokuhlelekile.Izonombolo ukusebenza nobudlelwano kuthatha ama-60% wezibalo emaBangeni 1-3.ama-60% ukuhlolwa okuhlelekile eThemu ngayinye kunyaka wonke kufanele ugxile kwi-zinombolo ukusebenza nobudlelwano.

Ingxenye ngayinye yokuhlola okuhlelekile ayizimeli emsebenzini ohlolwayo.ezinye izingxenye zihlolwa kanyekanye

kanti ezinye zingahlolwa ngezikhathi ezihlukene Isib. amakhono okubala ngokweqa izinombolo angenziwa kanye nokunye kulomsebenzi:

- Ukuqedelela ukubala ngokulandelana
- Ukufunda nokubhala izimpawu zezinombolo
- ukubala

Ukuhlola okuhlelekile okunezibalo zokuxazulula izinkinga ngokwenza amaqoqo noma ngokwabelana nokuhlola ukukwazi ukukala umthamo kungenziwa ngezikhathi ezihlukene.

4.5 UKUBHALA NOKUBIKA NGOKUSEBENZA KWABAFUNDI

Ukubhala ngokusebenza kwabafundi kuyindlela uthisha agcina ngayo ulwazi lwezinga umfundi akulo kulowo msebenzi ohleliwe.lolulwazi luveza ulwazi lokusebenza komfundi ukufika ezingeni olubekwe kwi CAPS.ulwazi ngokusebenza komfundi malunike ubufakazi bokukhula komfundi kuleloBanga akulo nokuholela ekudluleleni eBangeni elilandelayo. ulwazi olubhalwe ngokusebenza komfundi lungasiza ukuveza inqubekelaphambili ekufundeni nasekufundiseni.

Ukubika ngokusebenza komfundi kuwuhlelo olwazisa abafundi,abazali,isikole nabaxhasi ngenqubekelaphambili yokusebenza kwabafundi,lokhu kungabikwa ngezindleal ezahlukene ezingafaka irephothi lokusebenza komfundi,imihlangano yabazali,njll.othisha kumaBanga onke parephotha ngama-% kuzozonke izifundo.ithebhula elingezansi libonisa ubungako bama-%,amazinga kanye nezincazelo zawo:

AMAZINGA NAMAPHESENTI ABHALWAYO UKUBIKA UKUSEBENZA KOMFUNDI

UPHAWU LOKULINGANISA	INCAZELOYOKUQHUBA KOMFUNDI	IPHESENTI
7	Umphumela ovelele	80 - 100
6	Umphumela oncomekayo	70 - 79
5	Umphumela owanele	60 - 69
4	Umphumela ogculisayo	50 - 59
3	Umphumela olingene	40 - 49
2	Umphumela ongagculisi	30 - 39
1	Umphumela ongalungile	0 - 29

4.6 UKUQINISEKISA UKUHLOLA OKUHLELIWE

Ukuqinisekisa ukuhlola okuhleliwe kuwumsebenzi wokuqinisekisa ukuthi umsebenzi wokuhlola mawube ngofanele, ngosemthethweni, ngothembekile. ukuqinesikisa ukuhlola kwenziwa ezikoleni, ehhovisi lesifunda, elesifundazwe nakuzwelonke.

4.7 JIKELELE

Losomqulu mawufundwe uhlanganiswe nalokhu okulandelayo:

4.7.1 *National policy pertaining to the progrmme and promotion requirements of national Curriculam statement Grades R-12; and*

4.7.2 The policy document, *National Protocol for Assessment Grades R-12*

4.8 IZIBONELO ZEZINHLA ZOKUHLOLA ZAMABANGA 1-3

Ngezansi izibonelo zezinhla zokubheka ukuhlola aphansi. Lokhu kusiza othisha ukuba bakwazi ukulungiselela nokwenza ukuhlola okuhlelekile ngendlela eqhubekayo.

IBANGA R				
Uhla lokubheka abafundi ezibelweni zomthamo				
Ulwazi lwezibalo	**Ulwazi**	**Izinqumo**	**√ noma x**	**ukuphawula**
Izinombolo, Izimpawu nobudlelwane bazo	Ukubala	Qagela uphinde ubale ngekhanda kufinyelela esi-5(amaculo ezinombolo,kanye nemilolozelo ukuthuthukisa ulwazi lwezinombolo)		
	Ukubona izinombolo	Bona izinombolo esimweni esijwayelekile-Isib.iminyaka yabafundi,irejista njll.		
		Qonda izinombolo ezijwayelekile(Isib. ngesikhathi sokuzikhulula)		
	Ulwazi lwezinombolo	Qonda okukodwa-nokukodwa okuqondanayo		
	Khomba bese uchaza izinamba eziphelele	Khomba izithombe zezinombolo kanye namakhadi amachashaza afaka inombolo ku-1		
		Yazi uphawu lwenombolo ku-1		
		Bona igama lenombolo ku-1		
	Ukuxazulula izinkinga zezibalo	Sebenzisa izinto eziphathekayo Chaza ukucabanga kwakho ngamagama nangemidwebo noma ngezinto eziphathekayo		
Amaphethini nobudlelwane	Kopela,wandise ubuye wenze awakho amaphethini.	Bona amaphethini akuzungezile.		
		Kopela,wandise,wakhe amaphethini		
Indawo nezimo	Bona,ukhombe,usho amagama ezinto ezinhlangothintathu	Bona,ukhombe bese usho amagama amabhola		
		Bona,ukhombe bese usho amagama amabhokisi		
	Bona,ukhombe,usho amagama ezinto ezinhlangothimbili	Bona, khomba bese usho amagama ezimpawu zamaqoqo abo, nabanye abafundi.		
		Yakha iphazili yezingcezu eziyi-6		
		Khombisa ikhono lokuhlukanisa phakathi kwesthombe esiphambili nesisemuva.		

	Izimo ezisejiyometri	Khomba,ubone indilinga.		
		Khomba,ubone unxantathu		
		Khomba,ubone isikwele		
	Chaza, uhlele, uqhathanise izinto ezinhlangothintathu ngokwe:	Qhathanisa,amaqoqo amabili usho ukuthi iliphi elinokuningi,okuncane,okuningi kunokunye,nokuncane kunokunye		
		Hlela izinto eziphathekayo: Ubungako-okukhulu nokuncane		
		Umbala-imibala yendalo-(obomvu,oliphuzi,oluhlaza)		
		Isimo-indilinga,unxantathu kanye nesikwele		
		Izinto eziphathekayo eziginqikayo		
		Izinto eziphathekayo ezishelelayo		
	Bona umugqa ohlukanisa kabili kufane nse nhlangothi zombili:	Bona umugqa ohlukanisa phakathi okufana nse nxazombili		
	Ukuqonda indawo: Ubudlelwano phakathi komfundi nezinto ezimbili noma ngaphezulu	Ukwazi ingaphambili nengemuva		
		Ukwazi ngaphezulu kwe, okungaphansi, okungezansi.		
		Ukwazi phakathi nangaphandle		
		Ukwazi phezulu naphansi		
	Izinkomba	Ukwazi ulwazi lwamagama afana ngaphambili,ngemuva,		
Isilinganiso	Isikhathi	Sebenzisa amgama ubusuku nemini,ukukhanya nobumnyama,ekuseni nantambama,ukuchaza isikhathi sosuku.		
		Hlela zosuku ngokulandelana kwazo.		
		Ukukwazi ukubona izinsuku seveki,izikhathi zonyaka kanye nesimo sezulu.		
		Ukwazi usuku lwakhe lokuzalwa		
	Ubude	Ukuhlukanisa ubude nobufishane,okude ngokuthe xaxa nokufishane kakhulu.(ishadi lobude)		
Ukuqokelwa nokuhlelwa kolwazi lwezinombolo	Qoqa,hlela,dweba,funda bese ubhala okumele ulwazi oluqoqiwe	Ukukwazi ukuqoqa,uhle,udwebe,ufunde,uhla ziye izinto ngokwesakhiwo esisodwa.		

ISILINGANISO SOKUGCINA:

IBANGA R UHLA LOKUHLOLA

ITHEMU 2

Ulwazi Lwezinombolo	Ulwazi	Izinqumo	√ noma x	Ukuphawula
IZINOMBOLO, IZIMPAWU NOBUDLELWANE BAZO	Ukubala	Qagela, ubale ngekhanda kuyofika ku 7 (clula, isho imilolozelo)		
		Bala uya phambili ubuye uhlehle (1 - 4)		
		Ukwazi ulwazi lwamagama njenga okuningi / okungconywana.		
	Ukubona Izinombolo	Ukubona izinombolo ezimweni ezejwayelekile njenge nombolo yendlu, ikheli.		
	Ukubona bese Uchaza Izinombolo	Khomba, izithombe zezinombolo namakhadi amachashaza		
		Ukwazi izimpawu zezinombolo 1, 2, 3,4		
		Bona amagama ezinombolo		
	Ulwazi Lwezinombolo	Uyakwazi ukbeka okunye nokunye ngokuqondana		
		Hlukanisa phakathi kokuningi, okuncane okuyingcosana		
		Ukubona umehluko kwimali ewuhlweza		
	Ukuxazulula Izinkinga Zezinombolo	Sebenzisa izinto eziphathekayo Chaza ngamagama noma ngemidwebo		
		Xazulula izinkinga zezibalo ngokukhuluma ezokuhlanganisa nokususa kufika kunombolo 4.		
AMAPHETHINI NOBUDLELWANE	Ukukopisha, uqhube, wakhe amaphethini	Kopela, qhuba bese wakha amaphethini usebsnzisa izinto, izimo nemali.		
INDAWO NEZIMO	Ukubona, ukhombe, bes unika igama lezimo ezinhlangothimbili	Akha iphazili elinezingcezu eziyi 12		
		Khombisa ikhono lokuhlukanisa phakathi kwezinto eziphambili nezingemuva esithombeni.		
	Izimo ezibalombhalo	Bona, khomba bese usho igama likanxantathu		
		Ubona umumo kanxantathu		
	Ukuchaza, uhlele bese uqhathanisa izinto ezinhlangothintathu:	Qhathanisa amaqoqo ezinto amabili usho ukuthi yiziphi ezinde noma ezimfushane		
		Hlela izinto ngezimo - yinde/imfushane		
		imibala		
		izimo		
	Akha izimo ezinhlangothintathu	Sebenzisa amabhuloki		
	Bona umugqa ohlukanisa kabili kulingane kufane	Bona umugqa ohlukanisa kabili kulingane futhi kufane ezintweni eziseduze nawe		
		Uyakwazi ukusebenza kwizinhlangothi zombili		
	Ubudlelwano nendawo okuyo	Ukuqonda ubudlelwano phakathi komfundi nezinto ezimbili noma ezintathu		

Isilinganiso	Isikhathi	Uyazi izinsuku zeviki,izikhayhi zonyaka njll. imilolozelo namaculo		
		Wazi usuku lwakhe lokuzalwa (phinda hlola)		
	Ubude	Uyazi umehluko kokkude nokufushane		
Ukuqokelela nokuhlela ulwazi	Qoqa, hlela,dweba,funda bese ubhla izinto ezimela ulwazi	Qoqa,hlela, dweba, funda beseudweba okumele ulwazi		

ISILINGANISO SOKUGCINA:

IBANGA R-UHLA LOKUHLOLA

ITHEMU 3

ULWAZI LWEZBALO	ULWAZI	IZINQUMO	√ Noma x	PHAWULA
IZINOMBOLO, IZIMPAWU NOBUDLELWANE BAZO	ukubala	Qagela bese ubala ngekhanda ufike ku- 7 (amaculo ezinombolo nemilolozelo) ukuze athuthuise ulwazi lwezinombolo		
		Bala uya emuva naphambili (1-7)		
		Bazi ukuthi ihlombe ulishaye kangaki kakhulu / kancane		
	Ukubona izinombolo	Babona izinombolo esimeni esijwayelekile isib. iminyaka, irejista (uhlole njalo)		
	Thola bese uzichaza izinombolo	Thola izithombe zezinombolo namakhadi anamachashaza ufike ku- 7		
		Yazi izimpawu zezinombolo - 5, 6, 7		
		Bona amagama ezinombolo -kuhlanu, isithupha,isikhombisa		
	Ulwazi lwezinombolo	Hlukanisa phakathi kokuningi,okuyimbijana,nokul inganayo,okuningi nokumbalwa ufike- 7		
		Bona imibala nezinhlobo zezilwane emalini engamaphepha yase Mzansi.		
	Ukuxazulula izinkinga	Sebenzisa izinto eziphathekayo Chaza ngendlela ocabanga ngayo ngamagama,nangokudweba noma ngezinto eziphathekayo.		
		Xazulula izinkinga zokuhlanganisa nokususa ngomlomo ufike ku- 7		
AMAPHETHINI NOBUDLELWANE	Kopisha qhuba bese uzakhela awakho amaphethini	Kopisha,uqhube bese uzakhela awakho amaphethini usebenzisa izithombe		
INDAWO NEZIMO	Buka uthole bese ubize onhlangothimbili-2-D izimo/izithombe	Yakha okungenani izingcezu eziyi-18 zephazili		
	Izimo ezisazibalo mdwebo	Bona,uthole bese usho izimo eziyisikwele.		
		Qonda isimo sezimo ezejwayelekile esezifundiwe kuze kube manje (ukugcina ismo singashintshile)		
	Yakha izinto ezinhlangothintathu 3-D usebenzisa izinto eziphathekayo	Yakha izimo ezintweni nangezibonelo ozinikiwe		
		Kopisha isakhiwoemdwebeni osekhadini		
	Ubudlelwano bendawo	Bona ubudlelwano phakathi kwezinto ezimbili noma eziningi nokuthi zihlobene kanjani - Ngaphambili,ngemuva, ngaphezulu, phe zulu,phansi,ngaphansi,ecelelni phakathi kwesokudla kwesokunxele		
		Yenza ngokulandela imiyalo ebhodini lokugaxa		
	Izinkomba	Yazi izindlela ezehlukene ngokulandela ishadi lemicibisholo		

Izilinganiso	Ubude	Qagela bese ukala ubude bezinto ezehlukene		
	Isisindo	Qonda ngalolulwazi okulula,okunzima, kusinda kakhulu kusinda kancane, kulula kancane kulula kakhulu		
	Umthamo	Qonda lolulwazi kugcwele,akukho,kugcwele kuno, kuncane kune”		
Ukuqokelela nokuhlela ulwazi	Qoqa uhlele, udwebe, ufunde uyayithula	Bakwazi ukuqoqa bahlele, badwebe, bafunde bese bethula lololwazi ngokulihlaziya ngokwesihloko leso		

ISILINGANISO SOKUGCINA:

IBANGA R UHLA LOKUHLOLA

ITHEMU 4

ULWAZI LWEZIBALO	ULWAZI	IZINQUMO	√ nomax	Ukuphawula
Izinombolo,izimpawu nobudlelwane bazo	Ukubala	Qagela uphinde ubale ngekhanda kufinyelela eziyi-5(amaculo ezinombolo,kanye nemilolozelo ukuthuthukisa ulwazi lwezinombolo))		
		Bala uye emuva kanye naphambili (1-10)		
		Bala ngakubili (imilolozelo kanye namaculo ezinombolo)		
		Ukuqonda amagama afana:nokuningi kanye nokuncane(kushaywa izandla)		
		Ukuqonda izinombolo kushaywa izandla kaningana nakancane kakhulu.		
	Ukubona izinombolo	Ukubona bese ukhomba izinombol ezimweni ezijwayelekile.Isib.iminyaka yabafundi njll.		
	Ulwazi lwezinombolo Khomba bese uchaza izinamba eziphelele	Khomba izithombe zezinombolo kanye namakhadi amachashaza afaka inombolo kusuka ke-0-10		
		Yazi uphawu lwenombolo eyesi-8,9,10 kanye no-0		
		Bona igama lenombolo eyesi-8,9,10 kanye no-0		
		Qedela ukulandelana kwezinombolo ezilula kusuka kweyo-1-10		
	Ulwazi lwezinombolo	Hlukanisa phakathi kokuningi,okuncane,okulin ganayo,okuningi kakhulu,nokuncane kakhulu kuyofika kokuyi-10		
		Ukukwazi ukulandelana kwezinombolo ezijwayelekile okokuqala,okwesibili,okwesithathu kuyofika kokuyisithupha.		
	Ukuxazulula izinkinga zezibalo	Sebenzisa izinto eziphathekayo Chaza ukucabanga kwakho ngamagama nangemidwebo noma ngezinto eziphathekayo		
		Xazulula izinginkinga zokuhlanganisa nokususa ubebenzisa izinombol kufinyelela e-10		
Amaphethini nobudlelwane	Kopela, wandise ubuye wenze awakho amaphethini.	Kopela,wandise wenze amaphethini alalelwayo		
		Ukwazi ukudlala umdlalo (gxa)		

Indawo nezimo	Bona, ukhombe, usho amagama ezinto ezinhlangothimbili	Ukukwazi ukwenza okungenani ngezingcezu ezingama-24		
	Izimo ezisejiyometri	Ukubona akhombe indilinga,unxantathu,isikwele nonxande.		
	Bona umugqa ohlukanisa kabili kufane nse nhlangothi zombili:	Bona umugqa ohlukanisa phakathi okufana nse nxazombili ezintweni		
	Ubudlelwano phakathi kwezinto	Ukwazi ulwazi lwamagama eduze kwe,phakathi namaphakathi,kwesokunxele kanye nesokudla.		
		Ukukwazi ukwenza umsebenzi oseqophelweni eliphezulu kwibhodi lokugaxa.		
	Izinkomba	Ukwazi ulwazi lwamagama afana ngaphambili,ngemuva,phezulu naphansi,kwesokunxele kanye nesokudla.		
Isilinganiso	Ubude	Ukuqonda ukuthi izinto ziyakalwa kusetshenziswa ibhande lokukala.		
Ukuqokelwa nokuhlelwa kolwazi lwezinombolo	Qoqa, hlela, dweba, funda bese ubhala okumele ulwazi oluqoqiwe	Ukukwazi ukuqoqa, uhle,udwebe,ufunde,uhlaziye izinto ngokwesakhiwo esisodwa.		

ISILINGANISO SOKUGCINA:

Izibonelo zezinto zokusebenza uma kuhlolwa

ISIPHAKAMISO SOHLA LOHLELO LOKUHLOLWA OLUHLELEKILE

Isibonelo sohla lohlelo lokuhlolwa samabanga R kuya ku 3 sinikiwe ngenzansi. Lokhu kuzosiza othisha ukuba bahlele futhi benze uhlelo lokuhlolwa oluhlelekile ngendlela eqhubekayo.

Isibonelo sezinto zokusebenza uma kuhlolwa

Ukusebenzisa Uhla lokuhlola isilinganiso

IBANGA 1				
Uhlalo lokubheka Abafundi ezibalweni zomthamo				
Ulwazi Lwezibalo	Isihloko	Izinqumo	✓ noma ×	Ukuphawula
ISILINGANISO	**Umthamo**	Qhathanisa bese uyahlela umthamo woketshezi ezitsheni ezimbili ezibekwe ezibekwe eduze kwesinye.		
		Qhathanisa umthamo woketshezi olusezitsheni ezimbili ezinomumo ongafani ngokuwuthela esiy-sheni sesithathu.		
		Bhala umthamo wezitsha usebsnzisa isikalo esin-galinganisiwe njenge izipuni, izinkomishi njll.		
		Phendula imibuzo ngkuthi yisiphi isitsha esin-omthamo omningi.		
		Usebenzisa amagama okuqhathanisa njn-gokuthi kuningi kuno, kuncane kuno, kugcwele, akugcwele.		

IBANGA 1				
Ithemu 4: Umsebenzi wokuhlola				
Ulwazi Lwezibalo	Isihloko	Izinqumo	✓ noma ×	Ukuphawula
ISILINGANISO	**Isisindo**	Hlela bese uqhathanisa isisindo sezinto ezintathu noma ngaphezulu ngokuzibeka ezimbili kanyakan-ye esikalini bese ezilandelanisa ngesisindo sazo.		
		Yisho isiso sezinto usebenzisa isikali esingalin-ganisiwe.		
		Sebenzisa amagama okuqhathanisa isisindo njenga kulula, kuyasinda kulula kakhulu.		
		Ukukwazi ukubhala izilinganiso ezithathiwe		

Ukusebenzisa izinto zokusebnza (rubric) ukuhlola izinkinga zezibalo

Izinkinga zezibalo zingahlolwa ngokusebenzisa ithuluzi lokuhlola.

Okuthathwa njengendlela efanele yokuxazulula izinkinga zezibalo:

- Ushintsho kubafundi lapho bekhula olwazini lokusebenza ngezinombolo nasekwazini ukukhulisa ulwazi lwezinombolo,
- Kuncike olwazini lokukhula kwezinombolo nasezinkingeni zezinhlobo zezinombolo.

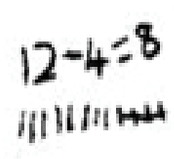
EBANGENI 1	
Ukusebenzisa ithuluzi lokuhlola ekuxazululeni izinkinga zezinombolo	
Akazi uzoqalaphi noma wenza okungafanele.	1
Uyayiqonda inkinga yezibalo, aqale bese engakwazi ukuqeda ngendlela efanele.	2-3
Uyayiqonda inkinga yezibalo, asebenzise imidwebo noma izinto zokubala Uyakwazi ukuchaza abe namaphutha ambalwa.	4-5
Uyasenza asiqede isibalo ngendlela efanele. Uyakwazi ukuchaza indlela enze ngayo nokucabanga kwabanye.	6-7

EBANGENI 2	
Ukusebenzisa ithuluzi lokuhlola ekuxazululeni izinkinga zezinombolo	
Akazi uzoqalaphi noma wenza okungafanele.	1
Uyayiqonda inkinga yezibalo, aqale bese engakwazi ukuqeda ngendlela efanele. noma Uyayiqonda inking yezibalo, asebenzise imidwebo noma izinto zokubala.	2-3
Uyayiqonda inking yezibalo, asebenzise imidwebo noma izinto zokubala Uyakwazi ukuchaza abe namaphutha ambalwa.	4-5
Uyasenza asiqede isibalo esebenzisa ulwazi lwezinombolo namaqhinga afana nokuhlakaza nokuhlanganisa izinombolo, ukuziphinda kabili, ukuzihlukanisa kabili, umugqa wezinombolo njll. Uyakwazi ukuchaza indlela enze ngayo nokucabanga kwabanye.	6-7

EBANGENI 3	
Ukusebenzisa ithuluzi lokuhlola ekuxazululeni izinkinga zezinombolo	
Akazi uzoqalaphi noma wenza okungafanele.	1
Uyayiqonda inkinga yezibalo, aqale bese engakwazi ukuqeda ngendlela efanele esebenzisa imidwebo neinto zokubala.	2-3
Uyayiqonda inkinga yezibalo ayixazulule esebenzisa izinombolo.Uyakwazi ukuchaza isixazululo sakhe.	4-5
Wenza izibalo aziqede ngendlela efanele esebenzisa ulwazi lwezinombolo ngendlela efanele namaqhinga okuhlakaza izinombolo abuye azihlanganise, ukuhlukanisa kabili, ukusondezela eshumini, umugqa wezinombolo ngokufanele.	6-7

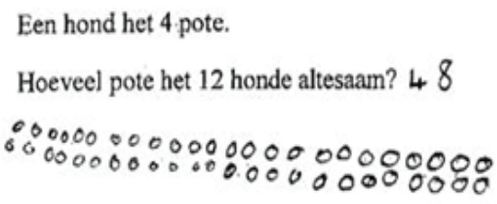
Izibonelo: Ukusebenzisa ithuluzi lokuhlola ekuxazululeni izinkinga zezinombolo eBangeni 1 kuya ku 3

Inja inemilenze emine. Mingaki imilenze yezinja eziyi 12?



Ibanga 1: Isilinganiso: 1.

Umfundi akayiqondi inking yezibalo, bese esbenzisa amasi okungewona.



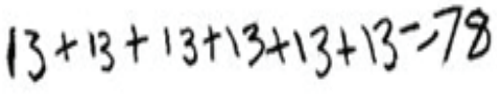
Ibanga 1: Isilinganiso 6

Umfundi uyayiqonda inkinga yezibalo, bese eyixazulula ngendlela efaneleinkinga. Uyakwazi ukuchaza inkinga.

Ibanga 2: Isilinganiso 4

Umfundi uyayiqonda inkinga yezibalo. Umfundi webanga 2 kufanele asebenzise izinombolo nezimpawu zokuhlanganisa uphindaphinda.

Umlimi utshale izihlahla emigqeni eyisithupha. Umugqa ngamunye unezihlahla eziyi 13. Zingaki izihlahla azitshalile sezizonke?

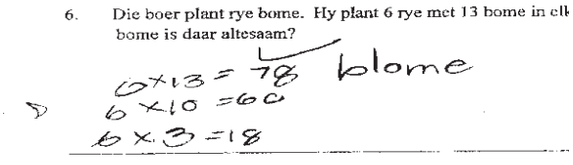


Ibanga: Isilinganiso 6

Umfundi uyayiqonda inkinga yezibalo bese eyixazulula ngendlela efanele esebenzisa izinombolo nezimpawu zokusebenza izibalo zebanga 2.

Ibanga 3: Isilinganiso 4

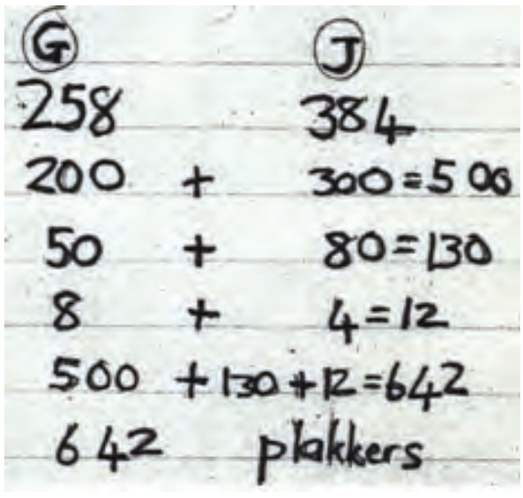
Umfundi uyayiqonda inkinga yezibalo bese eyixazulula ngendlela efanele. Kodwa akasebenzisi amaqhinga nzindlela zokubala eziseBangeni 3, njengoku phindaphinda inombolo usebenzisa ukuhlakaza nokuyihlanganisa inombolo.



Ibanga 3: Isilinganiso 5

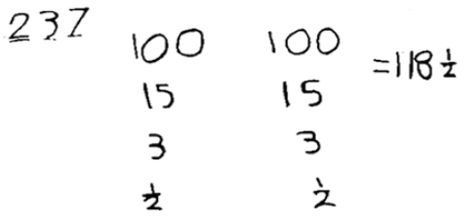
Uyasebenza asiqede isibalo esebenzisa izinombolo nezimpawu zokusebenza ngezinombolo namaqhinga afana nokuhlakaza abuya ache inombolo. Uyakwazi ukuchaza indlela enze ngayo nokucabanga kwabanye.

UGcina unezimabuli ezingama 258 bese uJabu eba nezingama 384. Banezimabuli ezingaki sezizonke?



Ibanga 3: Isilinganiso: 5

Uyasebenza asiqede isibalo esebenzisa izinombolo namaqhinga afana nokuhlakaza nokwakha izinombolo,ukuziphinda kabili, ukuzisondeza eshumini, umgqa wezinombolo njll. Uyakwazi ukuchaza indlela enze ngayo nokucabanga kwabanye.

Ubani uhafu wama- ***237?***	
	**Ibanga 3. Isilinganiso: 5** Uyakwazi ukuxazulula izinkinga zezibalo esebenzisa ulwazi lwezinombolo, namaqhinga okuhlakaza abuye ache izinombolo, ukuziphinda kabili, azihlukanise kabili,azisondeze eshumini nomugqa wezinombolo. Uyakwazi ukuchaza indlela enze ngayo nokucabanga kwabanye.

Ibanga 1 ithemu 1: Isibonelo somsebenzi wokuhlola kokuqala

Uhlobo Lomsebenzi	Uhla lwezinto ezihlolwayo	✓noma ×	Ukuphawula
Okukhulunywayo	Umfundi uyakwazi uku: • Izinto eziphathekayo kuyofika kweziyishumi? • Iliphi iqoqo elincane/ eliningi? • Ukufunda izimpawu zezinombolo kuyofika koku 5?		
Okwenziwayo	Umfundi uyakwazi uku: • Ukulandelanisa izinto? • Ukukopisha iphethini? • Ukubeka izinto phambili kwakhe? • Ukubeka izinto ngemuva kwakhe? • Ukuhlela izinto ngokophawu olulodwa? • Ukusebenza ngenkinga uke uthole isisombululo?		

Ibanga 1: Isibonelo Somsebenzi Wokuhlola

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, Izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala ngokuzethemba iznto kufinyelele kweziyi 10. Isho amagama azo ngokulandelana.
		Bhala bese ufunda izimpawu zezinombolo kusuka kweyodwa uya kweyesihlanu
		Hlela izinombolo kusukela kweyokuqala kukya kweyesihlanu; kusukela kwencane kuya kwenkulu.
		Sebenzisa amagama ukuchaza isikhundla senombolo uma uqhathanisa nezinye njengo engaphambi, engemuva
	Ukuxazulula izinkinga zezibalo	Xazulula izinkinga zezibalo zamagama ezifaka ukuhlanganisa, ukususa izinombolo ezifika kweziyisi 5. Esebenzisa imidwebo nezinye izinto. Uyakwazi ukuchaza izixazululo zakhe.
		Uxazulula izinkinga zokwenziwayo kufaka ukuhlukaniselana ngokulingana nokwenza amaqoqo ngezinombolo kufinyelela ku 5 okunezimpendulo ezinezinsalela. Uyakwazi ukuchaza izimpendulo zakhe.
	Ukubala	Uyakwazi ukuhlanganisa kuze kufinyelele ku 5 esebenzisa imidwebo nezinye izinto.
		Uyakwazi ukususa kunoma iyiphi inombolo kuze kufike ku 5. Esebenzisa imidwebo nezinye izinto.
Amaphethini, Ubudlelwane ne-Aljibhra	Amaphethini Ezinombolo	Uyakwazi ukuqedela ukulandelana kwezinombolo ebala ngakunye kuze kuyifika e 10. Isibonelo 1, 2, 3, 4, __, __, __, __, 9, 10
Indawo nezimo	Izikhundla	Uyakwazi ukulandela imiyalelo abeke into ngayinye ngokomyalelo kathisha Isibonelo: Beka inkmishi phezulu kwetafula.
	Izimo ezinhlangothintathu	Ukubona nokunika amagama: • Izimo zamabhola • Izimo zamabhokisi
Isilinganiso	Isikhathi	Chaza izikhathi zosuku. Isibonelo: ekuseni, ntambama, ebusuku
	ubude	Ukwazi ukukala ubude, ububanzi esebenzisaizikali ezingahlelekile.
	Isisindo	Ukwazi ukukalaaqhathanise isisindosezinto ezintathu esbenzisa isikali esingahlelekile. Abesehlela izinto ngesisindo sazo. Achaze isisindo esebenzisa amagama afana -kulula kuna, kuyasinda kuna.
Ukuqokelela nokuhlelwa kolwazi lwezinombolo	Ukuhlela amaqoqo ezinto	Qoqa bese ehlela izinto ezejwayelekile ngokwemiyalelo enikwe uthisha. Dweba isithombe sezinto ezihleliwe.

Ibanga 1 Ithemu yesi-2: Umsebenzi Wokuhlola woku- 1

ULWAZI LWEZIBALO	ISIHLOKO	UHLA LWEZINTO EZIHLOLWAYO
Izinombolo, Izimpawu nobudlelwane bezinombolo	Ulwazi Lwezinombolo	Bala ngokuzethemba iznto kufinyelele kweziyi 20. Isho amagama azo ngokulandelana
		Asho ukuthi iliqoqo lezinto eziningi noma ezincane, lapho amaqoqo enezinto ezingengaphansi kuka 10
		Ufunda izimpawu zezinombolo kuye kufinyelele ema- 30
		Ubhala izimpawu zezinombolo kuya ku10
	Ukuxazulula Izinkinga Zezibalo	Uxazulula izinkinga zezibalo zamagama lapho kuhlanganiswa kubuye kususwe kunezimpendulo ezifika. Kusebenzisa: • izinto • imidwebo • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili Uyakwazi ukuchaza izixazululo zakhe
	Izibalo	Wenza izibalo zokuhlanganisa kuye kfike ku 10 esbenzisa: • izinto • imidwebo • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili Ubhala umusho wezinimbolo onophawu +
		Wenza izibalo zokususa kusukela e- 10 noma ngaphansi esebenzisa: • izinto eziphathekayo • imidwebo • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili Ubhala umusho wezinimbolo onophawu -
Amaphethini, ubudlelwane ne-Aljibhra	Amaphethini Ezinombolo	Uqedela ukulandelana kwezinombolo ebala kufinyelela ku 30. • Ngakunye: 20, 21, 22, 23, __, __, __, __, 28; __; 30. • Ngakuhlanu:.5, 10, 15, __, __, 30,
	Amaphethini Okusejiyometri	Kopela aqhube iphethini; • Esebenzisa uhlobo olulodwa lwento kodwa olushintsha umbala. • Esbenzisa izinto ezifanayo ezinobungako obungafani
Indawo nezimo	Izimo Ezinhlangothimbili	Khomba bese usho igama: indilinga isikwele unxantathu

IBanga 1 Ithemu yesi- 2: Umsebenzi Wokuhlola wesi- 2

ULWAZI LWEZIBALO	ISIHLOKO	UHLA LWEZINTO EZIHLOLWAYO
Izinombolo, Izimpawu nobudlelwane bazo	Ulwazi Lwezinombolo	Bala uye phambili ubuye uhlehle ngakunye kusukela ku 1 kuya ku 20
		Bala uye phambili ngo 5, ngo 2, kusukela ku 0 kuya ku 50
		Usebenzisa amagama ukuchaza isikhundla senombolo esebenzisa - ngapphambi kuka, emuva kuka
		Qhathanisa ubungako bezinombolo kuyofika ku 10 esebenzisa amagama afana no kuningi kuna, kuncane kuna
		Hlela izinombolo kusukela ki 1 kuya ku 10 kusukela kwencane kuya kwenkulu
		Ufunda izimpawu zezinombolo kusukela ema- 50
	Ukuxazulula Izinkinga Zezibalo	Uxazulula izinkinga zokwenziwayo esebenzisa ukuhlukaniselana ngokulingana, nokwenza amaqoqo ngezinombolo kuyofinyelela ku 10 okunezimpendulo ezinezinsalela. Esebenzisa lokhu okulandelayo: • izinto eziphathekayo • imidwebo • umugqa wezinombolo Uyachaza izimpendulo.
	Ukuxazulula Izinkinga Zezibalo	Uxazulula izinkinga zezibalo zamagama ezifaka ukuhlanganisa ngokuphindelelakunezimpendulo ezigcina e-10. Besebenzisa lokhu: • izinto • imidwebo • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili Uyachaza izimpendulo.
	Imali	Ukubona imali ewuhlweza neyamaphepha yaseNingizimu Afrika 5c, 10c,, 50c, R1, R2; R5
		Uxazulula izinkinga zezimali ezifaka isamba noshintshi okuye kuyofika kuR10 naku 20c
	Ukubala	Wenza ukuhlanganisa ngokuphindelela kuyofika ku 10 esebenzisa: • izinto • imidwebo • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili Ubhala umusho wezinombolo
Amaphethini, ubudlelwane ne-Aljibhra	Ulwazi Lwezinombolo	Uqedela ukulandelana kwezinombolo uma ebala:Completes number sequences of counting • ngankunye ehlehla esuka ku 50: 50, 49, 48, __, __, 45, __, __, 42; __; 40. • Ngamashumi eya phambili kuyofika ku 50:.10, 20, 30, __, __,
Isilinganiso	Umthamo	Uqagela, akale aqhathanise ahlele bese ebhala umthamo esebenzisa izikali ezingalinganisiwe njenge zipuni nezinkomishi.
Ukuqokelela nokuhlelwa kolwazi lwezinombolo	Hlela amaqoqo ezinto	Uqoqa, ahlele izintoeziphayhekayo ngokwezinqumo ezinikwe uthisha. Udweba isithombesezinto ezihleliwe noma achaze iqoqo lezinto ezihleliwe.

IBanga 1 Ithemu yesi- 3 Somsebenzi Wokuhlola woku- 1

ULWAZI LWEZIBALO	ISIHLOKO	UHLA LWEZINTO EZIHLOLWAYO
Izinombolo, Izimpawu nobudlelwane bazo	Ulwazi Lezinombolo	Bala izinto ezingama 40 ngokuyikho.
		Asho ukuthi iliqoqo lezinto eziningi noma ezincane, lapho amaqoqo enezinto ezingengaphansi kuka 15
		Ufunda izimpawu zezinombolo kuyofinyelela ku 70.
		Ubhala izimpawu zezinombolo kuya ku20
	Ukuxazulula Izinkinga Zezibalo	Uxazulula izinkinga zezibalo zamagama ezisezimweni ezijwajyelekile ezifaka izimpendulo ezinizinombolo ezifika ku 15. Esebenzisa: • Izinto eziphathekayo • imidwebo • ukwakha nokuhlukanisa izinombolo • umugqa wezinoombolo • ukuphinda kabili ukkhlunisa kaibili Uyakwazi ukuchaza izimpendulo.
	Izibalo	Wenza izibalo zokuhlanganisa kuye kufike kunombolo 15. Usebenzisa: • Izinto eziphathekayo • imidwebo • ukwakha nokuhlukanisa izinombolo • umugqa wezinoombolo • ukuphinda kabili ukkhlunisa kaibili ubhala umusho wezinombolo esebenzisa +, =
		Wenza izibalo zokususa kusukela e-15 nangaphansi esebenzisa: • Izinto eziphathekayo • imidwebo • ukwakha nokuhlukanisa izinombolo • umugqa wezinoombolo • ukuphinda kabili ukkhlunisa kaibili ubhala umusho wezinombolo esebenzisa -, =
Amaphethini, ubudlelwane ne-Aljibhra	Amaphethini ezinombolo	Qedela ukulandelana kwezinombolo ubala: • ngakunye uya emuva usuka kunoma iyiphi inombolo: 60, 59, 58, __, __, __, 54, __, __, 51. • Ngakubili uya phambili usuka kunoma iyiphi inombolo.44, 46, 48, __, __, __,56; __, 60
	Amaphethini Okusejiyometri	Uyakopela, aqhube bese echaza amaphethini lapho kusethsenziswe izimo ezahlukene eziyiqoqo, kodwa amaqoqo aphindwe ngendlela efanayo.
Indawo nezimo	Izimo	Ubona bese esho amagama: • Okuyisimo sebhola • Okuyisimi sebhokisi
		Ahlele izinto ngokuthi ziyagingqika noma ziyashelelela.

IBanga 1 Ithemu yesi- 3: Somsebenzi Wokuhlola wesi- 2

ULWAZI LEZIBALO	ISIHLOKO	UHLA LWEZINTO EZIHLOLWAYO
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi Lwezinombolo	Bala uya phambili ngama 10, ngama 5, ngokubili kuya ku 80
		Sebenzisa amagama ukusho ubungako benombolo
		Qhathanisa ubungako benombolo kufike ku 15: kuning kuna, kuyingcosana
		Uhlakaza izinombolo: 11 kuya 15 kanje: 10 nokukodwa, 12 = 10 + 2
	Ukuxazulula kwezinkinga	Uxazulula izinkinga zezibalo zamagama ezisezimweni ezijwajyelekile ezifaka izimpendulo ezinizinombolo ezifika ku 15. Esebenzisa: • Izinto eziphathekayo • imidwebo • ukwakha nokuhlukanisa izinombolo • umugqa wezinoombolo • ukuphinda kabili ukkhlunisa kaibili Uyakwazi ukuchaza izimpendulo
		Uxazulula izinkinga zezibalo ezifaka ukwabelana nokwenza amaqoqo kuyifika ku15 okunezimpendulo ezinezinsalela. Esbenzisa: • izinto • imidwebo • umugqa wezinombolo Uyakwazi ukuchaza izimpendulo
	Imali	Ukubona imali ewuhlweza neyamaphepha yaseNingizimu Afrik 20a 5c, 10c,, 50c, R1, R2; R5
		Uxazulula izinkinga zezimali ezifaka isamba noshintshi okuye kuyofika kuR10 naku 20c
	Ukubala	Wenza izibalo zokuhlanganisa ezphindaphindayo kufika ku 15. Esebenzisa: • Izinto eziphathekayo • imidwebo • ukwakha nokuhlukanisa izinombolo • umugqa wezinoombolo • ukuphinda kabili ukkhlunisa kaibili ubhala umusho wezinombolo esebenzisa +, =
Amaphethini, ubudlelwane ne-Aljibhra	Amaphethini Ezinombolo	Qedela ukulandelana kwezinombolo ebala: • ngakunye ehlehla kusuka ku 80;. 80, 79, 78, __, __, __, __, 73, ___; __; 70. • Ngamashumi kya ku 80:.10, 20, 30, __, __,__, __, __, • Ngakuhlanu:.5, 10, 15, __, __, 30, __, __.45, __, __, 60, __, __, __, 80
Indawo nezimo	Okufana nse nxazombili	Bona bese uyadweba umugqa ohlukanisa kabili kufane nse kwisimo esinhlangothmbili
Isilinganiso	Ubude	Qagela, ukale, uqhathanise, uhlele bese ubhala ubde usebenzisa izikalo ezingalinganisiwe.
Ukuqokelela nokuhlelwa kolwazi lwezinombolo	Ulwazi	Uphendula imibuzo ngolwazi lwegrafu yezithombe.

IBanga 1 Ithemu yesi- 4: Somsebenzi Wokuhlola woku-1

ULWAZI LWEZIBALO	ISIHLOKO	UHLA LWEZINTO EZIHLOLWAYO
Izinombolo, Izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala izinto ezingama 50 ngokuyikho.
		Isho ukuthiyiliphi iqoqo elinezinto eziningi kunelinye lapho iqoqo linezinto ezingengaphansi kuka 20
		Funda izimpawu zezinombolo kuya ku 80.
	Ukuxazulula kwezinkinga	Uxazulula izinkinga zezibalozokuhlanganisa nokususa ezinezimpendulo ezifika ku 20 Esebenzisa: • Izinto eziphathekayo • imidwebo • ukwakha nokuhlukanisa izinombolo • umugqa wezinoombolo • ukuphinda kabili ukkhlunisa kaibili
	Izibalo	Wenza izibalo zokuhlanganisa kufika ku 20. Esebenzisa: • Izinto eziphathekayo • imidwebo • ukwakha nokuhlukanisa izinombolo • umugqa wezinoombolo • ukuphinda kabili ukkhlunisa kaibili ubhala umusho wezinombolo esebenzisa +, =
		Wenza izibalo zokususa kusukela ema- 20 nangaphansi. Esebenzisa: • Izinto eziphathekayo • imidwebo • ukwakha nokuhlukanisa izinombolo • umugqa wezinoombolo • ukuphinda kabili ukkhlunisa kaibili ubhala umusho wezinombolo esebenzisa -, =
Amaphethini, ubudlelwane ne-Aljibhra	Amaphethini Ezinombolo	Qedela ukulandelana kwezinombolo ebala: • ngakunye ehlehla esuka 80: 80, 79, 78, __, __, __, 74, __, __, 71. Ngambili:.64, 66, 68, __, __, __,76; __, 80
Indawo nezimo	Izimo Ezinhlangothimbili	Bona bese usho amagama: • Izindilinga • Unxande • Isikwele Hlela ngukuthi izimo inmacala ayindilinga noma aqondile
Isilinganiso	Isisindo	• Qagela, ukale, uqhathanise, uhlele bese ubhala isisindo usebenzisa izikali ezingalinganisiwe kanye nesikali. • Sebenzisa amagama ukkhuluma ngokuqhathanisa isisindo njengokuthi kulula, kuyasinda

IBanga 1 Ithemu yesi- 4: Somsebenzi Wokuhlola wesi- 2

ULWAZI LWEZIBALO	ISIHLOKO	UHLA LWEZINTO EZIHLOLWAYO
zinombolo, Izimpawu nobudlelwane bazo	Ulwazi Lwezimbolo	Bala uya phambili ngama 10, ngama 5, ngokubili kuya ku 100
		Usebenzisa amagama ukuchaza ubungako bezinombolo.
		Qhathanisa ubungako benombolo kufika ku20 usebenzisaamagama afana ingcosana, kuningi kuna
		Hlela izinombolo kusuka ku1 kuya ku 20 kusukela kwenkulu kya kwencane
		Uhlakaza izinombolo: 11 kuya 20 kanje: 10 nokukodwa, 12 = 10 + 2
		Funda izimpawu zezinombolo kufinyelele e- 100
		Bhala izimpawu zezinombolo kufinyelele ema- 20
	Ukuxazulula kwezinkinga Zezibalo	Uxazulula izinkinga zokwenziwayo esebenzisa ukuhlukaniselana nokwenza amaqoqo kuya ku 20 okunezimpendulo ezinezinsalela. Esebenzisa lokhu oku-landelayo: • izinto eziphathekayo • imidwebo • umugqa wezinombolo Uyachaza izimpendulo.
	Imali	Ukubona imali ewuhlweza neyamaphepha yaseNingizimu Afrik 20a 5c, 10c,, 50c, R1, R2; R5
		Uxazulula izinkinga zezimali ezifaka isamba noshintshi okuye kuyofika kuR20 naku 50c
	Ukubala	Wenza izibalo zokuhlanganisa ezphindaphindayo kufika ku 20. Esebenzisa: • Izinto eziphathekayo • imidwebo • ukwakha nokuhlukanisa izinombolo • umugqa wezinoombolo • ukuphinda kabili ukkhlunisa kaibili ubhala umusho wezinombolo esebenzisa +, =
Amaphethini, ubudlelwane ne-Aljibhra	Amaphethini ezinombolo	Qedela ukulandelana kwezinombolo ebala: 99: 99, 98, 97, __, __, __, 93, __, __, 89. Ngamashumii:.10, 20, 30, __, __, __,70; __, 90
Indawo nezimo	Indawo	Sebenzisa amagama asho izinkomba lapho enyakaza ekilasini
		Qondanisa izingxenye ezihlukene zezinto.
Isilinganiso	Isikhathi	Uyazi izinsuku zeviki Uyazi izinyanga zonyaka
Ukuqokelela nokuhlelwa kolwazi lwezinombolo	Ulwazi	Uphendula imibuzo ngegrafu yezithombe

IBanga 2 Ithemu yoku-1: Ukuhlola koku-1

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo,ubudlelwane nokusebenza kwazo	Ulwazi lwezinombolo	Amamqoqo nokubala kufinyelela ezintweni eziyi-100
		Ukuqhathanisa nokuhlela izinombolo eziphelele kufinyelele kuma-25
		Ukucaza izinombolo ezingambili kufinyelela ema-25 ngamashumi nangakunye isib. 23=20+3
		Ukufunda nokubhala izimpawu zezinombolo kusukela ku 0 kuya ku 100
	Ukuxazulula izinkinga	Ukuxazulula izinkinga zezibalo zamagama ohlwini olufaka ukuhlanganisa, ukususa okunezimpendulo ezifinyelela kuma-20 kusetshenziswa loku okulandelayo: • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bese uchaza izixazululo zakho ezinkingeni
	Imali	Ukubona imali awuhlweza yaseSouth Africa 5c,10c, 20c, 50c, R1, R2, R5 nengamaphepha R10, R20, R50
		Ukuxazulula izinkinga zemali ufake isamba noshintshi R20 nohlweza kufinyelela ku 50c c
	Ukubala	Ukuhlanganisa kufinyelela kuma-20 Usebenzise loku okulandelayo • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bhala izibalo zezinombolo usebenzisa +, =
		Ukususa kufinyelela kuma-20 Usebenzise loku okulandelayo • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bhala umusho wezinombolo usebenzisa -, =
Amaphethini, ubudlelwane ne-aljibhra	Amaphethini ezinombolo	Qedela ukulandelana kwezinombolo uma kubalwa uqhubeka noma uhlehla • ngakunye kusuka 0 - 100 e.g. 99, 98, 97, __, __, __, 93, __, 91, 90 • ngamashumi kusuka ku 0 - 100 e.g. 10, 20, 30, __, __, __, 70__, __, 100 • ngakubili kusuka ku 0 - 100 e.g. 80, 82, 84, __, __, 90, _, __, __, ___, 100

Indawo nezimo zezakhiwo	3-D	Ukubona amagama ezinombolo • isakhiwo sebhola: imbulunga (spheres) • isakhiwo sebhokisi (prisms)
	2-D izimo	Ukuzibona namagama Izindilinga, onxantathu, izikwele, nonxande
Isilinganiso	Isikhathi	Isho isikhathi sewashi lezinti ngamahora
	ubude	Qagela, kala, qhathanisa,hlela, ubhale ubude,ububanzi, ududе ngamamitha

Ibanga 2 Ithemu 2: Ukuhlola 1

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala izithombe zezinto ezingamaqoqo kufinyelele e-150
		Qhathanisa izinombolo kufinyelele e-50
		Funda ubhale inombolo kusukela ku 0 - 50
		Bala uqhubeke uphinde uhlehle ngama - 10, 2, 5, kufinyelele e-150
	Ukuxazulula izinkinga	Xazulula izinkinga ezibonakalayo ngokusebenzisa ukuthi kuyalingana, ukucaza, namaqoqo ngezinombolo eziphelele kufinyelele ema-50 usebenzise loku okulandelayo: • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bese uchaza izixazululo zakho ezinkingeni
Amaphethini, ubudlelwane ne-aljibhra	Amaphethini ezinombolo	Qedela ukulandelana kwezinombolo uma kubalwa uqhubeka noma uhlehla kusukela ku 0 - 150 isib.131, 132, 133, __, __, __, 137, __, ____, ____, 141 • ngamashumi phakathi kuka 0 & 200 isib.150, 140, 130, __, __, 100, __, __.70, __, __, 40 • bala ngakubili isib. 150, 148, 146, 144, __, __, 138, __, __, 132. • Bala ngokuhlanu kusuka ku 0 - 150 e.g. 105, 110, 115, __, __, __, 135, __, __, 150
		Kopela, uqedele futhi uchaze amaphethini lapho izimo zezakhiwo zisetshenziswe ukwakha amaqoqo. Kodwa amaqoqo ezimo ayaphindwa ngendlela efanayo.
Isilinganiso	isikhathi	Yisho isikhathi sewashi lezinti ngamahora, nangohhafu

Ibanga-2 Ithemu 2: Ukuhlola 2

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezi-nombolo	Bala uqhubeka ngo 3,4
	Ukuxazulula izinkinga	Xazulula uchaze indlela oxazulile ngayo inkinga emayelana nokuhlukanisa ngokulinganayo okuholela ekutholakaleni kwamaqhezu.
	Amaqhezu	Ukubona nokusebenzisa uhhafu, ingxenye eyodwa kokuthathu, ingxenye eyodwa kokune, ingxenye eyodwa kokuhlanu, esimweni esejwayelekile
		Ukubona amaqhezu entweni esamdwebo
		Bhala amaqhezu asho uhhafu, nengxenye eyodwa kokuthathu
	Ukubala	Ukuhlanganisa kufinyelela kokungama-50 usebenzise loku okulandelayo: • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bhala umusho wezinombolo usebenzisa +, =
		Ukususa kufinyelela kuma-50 Usebenzise loku okulandelayo • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bhala umusho wezinombolo usebenzisa -, =
Amaphethini, ubudlelwane ne- aljibhra	Amaphethini ezinombolo	Qedela ukulandelana kwezinombolo ngendlela efanele eziphakathi kuka 0 ne 150 • ukubala ngakunye • ukubala ngakune isib.4, 8, 12 __, __, 24, __, 32, __, __, __, 48 • ukubala ngantathu isib. 3, 6, 9, __, __,21, __, __,__, 33, 36.
Isilinganiso	Isisindo	Qagela, kala, qhathanisa,hlela, ubhale isisindo usebenzisa ukukala okungahl-elekile nesikalo sokuzimelela isib. Amabhuloki, azitini njll.
		Landelanisa izinto ngesisindo samakiligram ngokulandelana

IBanga- 2 Ithemu yesi- 3: Ukuhlola koku-1

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala ufinyelele e-180 lezithombe zezinto ezingamaqoqo
		Qhathanisa uhlele izinombolo kufinyelela ema- 75
		Ukufunda nokubhala uphawu lenombolo ukufinyelela e 180
		Bala uqhubeka noma uhlehla ngo 2, 10, 5phakathi kuka 0 & 180
		Hlakaza izinombolo ezihamba ngambili kufinyelele ema-75 ngamashumi nangakunye isib. 48 = 40 + 8
	Ukuxazulula izinkinga	Xazulula izinkinga zezibalo zamagama esimweni esejwayelekile kungena ukuhlanganisa ngokuphindelela kufinyelela kuma-40 usebenzise loku okulandelayo: • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bese uchaza izixazululo zakho ezinkingeni
	ukubala	Phindaphinda izinombolo 1 - 10 ngo 5, 4 Usebenzisa loku okulandelayo: • Izinto eziphathekayo • imidwebo • umugqa wezinombolo bhala umusho wezinombolo usebenzisa x, =
Amaphethini, ubudlelwane ne- aljibhra	Amaphethini ezinombolo	Qedela ukulandelana kwezinombolo kwa: • ukubala uqhubeka noma uhlehla ngakunye phakathi kuka 0 & 180 isib. 180, 170, 160, __, __, 120, __,__ 90, • ukubala ngakubili isib. 150, 152, 154, __, 156, __, 160, __, __, 166 • ukubala ngakuhlanu kusuka ku 0 - 150 e.g.120, 125, 130, 135, __, __, __, 155, __, __, 170, __, 180
Indawo nezimo zezakhiwo	indawo	Sebenzisa ulimi olufanele ukuchaza indawo kulandelwa izinkomba ukuzungeza ekilasini

IBanga-2 Ithemu yesi- 3: ukuhlola kwesi- 2

Ulwazi lwezibalo	Isihloko	Izinqumo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala uqhubeke ngoku-4,3
	Ukuxazulula izinkinga	Xazulula uchaze izixazululo ezinkingeni ezifaka ukulingana nokuhlukaniselana.
	Amaqhezu	Ukubona usebenzise uhhafu,okokuthathu,okokune,okokuhlanu esimweni esejwayelekile
		Ukubona amaqhezu mudwebeni
		Bhala amaqhezu ngendlela yengxenye yokukodwa kokubili, yokukodwa kokuthathu njll
Amaphethini,ubudlelwane ne-aljibhra	Amaphethini ezinombolo	Qedela ukulandelana kwezinombolo 0 & 180 • ukubala ngakunye • ukubala ngakubili isib. 104,108, 112 __, __, 124, __, 132, __, __, __, 148 • ukubala ngakuthathu isib. 103, 106, 109, __, __,121, __, __,__, 133, 136.
	Amaphethini okusazibalo mdwebo	Kopela, uqhubeke nokuchaza amaphethini okusejiyometri lapho kunezimo ezifanayo, kodwa inombolo yesimo ngasinye ikhuphuka noma incipha ngendlela ekahle
Indawo nezimo zezakhiwo	indawo	Hlanganisa ukubonakala kwezinto ezifanayo
	2-D shapes	Bona usho Indilinga, unxantathu, isikwele, unxantathu nonxande
		Hlela izakhiwo ngokuba nezinhlangothi eziqondile neziyindilinga
Isilinganiso	Isisindo	Qagela, kala, qhathanisa, hlela, ubhale isilinganiso sezitsha usebenzisa izikalo ezingahlelekile isib. Izipuni, nezinkomishi
	Isikhathi	Funda iwashi lezinti ngamahora, isigamu, nengxenye yehora
		Sebenzisa ikhalenda ukubala ubude besikhathi bezinsuku namasonto
Ukuqokelela nokuhlelwa kolwazi lwezibalo	Ukuqokelela	Akha igrafu yezithombe ephepheni elinezikwele uma usunikezwe okuqokeleliwe

IBanga-2 Ithemu yesi- 3: Ukuhlola koku-1

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Counts pictures of grouped objects up to 200
		Orders and compares numbers to 99
	Ukuxazulula izinkinga	Xazulula izinkinga zezibalo zamagama esimweni esejwayelekile kungene ukuhlukanisa namaqoqo kufinyelela ku 99 nezimpendulo eziba nezinsalela uma usebenzisa loku okulandelayo usebenzise loku okulandelayo: • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bese uchaza izixazululo zakho ezinkingeni
	Imali	Ukubona imali yase South Africa 5c, 10c, 20, 50c, R1, R2; R5 neyamaphepha R10, R20, R50
		Xazulula inkinga yezimali efaka izimpendulo noshintshi kufinyelela ku R99 namasenti afinyelela ku 95c
Amaphethini, ubudlelwane ne-aljibhra	Amaphethini ezinombolo	Qedela ukulandelana kwezinombolo ubala uqhubeka noma uhlehla • ngakunye phakathi ku 0 no 200 • ngamashumi phakathi ku 0 no 200 isib. 130, 140, 150, -__, ___, ___, __, 200
Indawo nezimo zezakhiwo	2-D	Ukubona usho • indilinga • unxantathu • isikwele • unxande hlela ngokwakheka kwamacala ayindilinga noma aqondile
Isilinganiso	Isikhathi	Sebenzisa iwashi lezinti ukubala ubude besikhathi esedlule ngamahora, isigamu, nengxenye yehora

IBanga-2 Ithemu yesi- 4: Ukuhlola kwesi- 2

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Ukubala kuqhubeka noma kuhlehla ngo 2, 5 to 200
		Ukufunda nokubhala izinombolo kufinyelela ema-200
	Izibalo	Bhala ukuhlanganisa kufinyelele kuma 99 usebenzise loku okulandelayo: • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bhala imisho yezibalo usebenzisa +,=
		Bhala ukususa kusukela kunoma iyiphi inombolo kufinyelele ema- 99 usebenzise loku okulandelayo: • Izinto eziphathekayo • imidwebophansi • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bhala imisho yezibalo usebenzisa -,=
Amaphethini, ubudlelwane ne-aljibhra	Amaphethini ezinombolo	Qedela ukulandelana kwezinombolo eziphakati kuka 0 & 200 • ukubala ngakubili kusuka ku- 160, 162, 164, __, 166, __, 170, __, __, 176, __, 180 • ukubala ngakuhlanu kusuka ku 0 - 200 e.g.160, 165, 170, __, __, __, 190__, 200
Ukuqokelela nokuhlelwa kolwazi lwezibalo	Ukuqokelela	Ukuphendula imibuzo emayelana negrafu yezithombe

IBanga-2 Ithemu yesi- 4: Ukuhlola kwesi-3

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala uqhubeke ngaku-4,3
	Ukuxazulula izinkinga	Ukuxazulula izinkinga zezibalo zamagama esimweni esejwayelekile kufakwa ukuhlanganisa ngokuphindaphinda ukoholela ekuphandaphindeni okwakha izimpendulo ezifinyelela ema- 50 Bhala ukuhlanganisa kufinyelele kuma 99 usebenzise loku okulandelayo: • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili uchaze indlela oxazulule ngayo inkinga
	Ukubala	Ukuphindaphinda izinombolo 1 - 10 ngo 3 usebenzise loku okulandelayo: • Izinto eziphathekayo • imidwebo • ukwakha nokubhidlisa • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili bhala imisho yezibalo usebenzisa x,=
Amaphethini, ubudlelwane ne-aljibhra	Amaphethini ezinombolo	Qedela ukulandelana kwezinombolo • ukubala ngakunye • ukubala uhlehla ngakune isib.. 48,44, 40 __, __, 28, __, __, 16, __, __, 0 • ukubala uhlehla ngakutathu isib. 36, 33, 30, __, __, 21, 18, __,__, 9, __, __, 0.
Indawo nezimo zezakhiwo	3-D	Ukubona usho • izimo ezingamabhola (spheres) • izimo ezingamabhokisi (prisms) • izimbulunga (cylinders)
		Sorts objects into those that roll and those that slide
	Izinhlangothi ezilinganayo nezifana	Ukubona udwebe umugqa wokulinganisa izinhlangothi ubona izinhlangothi ezilinganayo nezifana ns kokusejiyometri ezinhlangothimbili
Isilinganiso	Umthamo	Landelila ngendlela izinto ezinesisindo esilinganiswe ngamalitha
		Funda umthamo ngamalitha esithombeni sojeke bokulinganisa

IBanga-2 Ithemu yoku- 1: Ukuhlola koku-1

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, Izimpawu nobudlelwano bazo	Ulwazi lwezinombolo	Hlela ngamaqoqo ezinto bese ubala ugcine ezintweni ezingama-200
		Qhathanisa bese ulandelanisa izinombolo eziphelele ufike kuma-99
		Funda ubhale izimpawu zezinombolo kusuka ku-okuya kuma- 500
		Hlakaza izinombolo ezihamba ngazimbili ufike kuma-99 ngamashumi nangakunye isib. 78 = 70 + 8
	Ukuxazulula izinkinga	Xazulula izinkinga zamagama esimweni esijwayelekile ufaka ukuhlanganisa, ukususa nezimpendulo zifike kuma-99 usebenzise okukodwa okulandelayo; • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili • ukusondezela eshumini 10 • bese uchaza ukuthi uyixazulule kanjani lezozinkinga
	Imali	Xazulula izinkinga zezimali ufake isamba noshintshi wamarandi namasenti
	ukubala	Yenza izibalo zokuhlanganisa uze ufike ema-99 usebenzisa okukodwa okulandalelayo • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili • ukusondezela emashumini • Bhala umusho wezinombolo usebenzisa +, =
		Yenza izibalo zokususa uze ufike ema-99 usebenzisa okukodwa okulandelayo • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili • ukusondezela emashumini • Bhala umusho wezinombolo usebenzisa + =
Amaphethini ubudlelwane Ne-algebra	Izinombolo zamaphethini	Qedela ukubala izinombolo ngokulandelana ubala uya phambili nasemuva kanje; • ngakunye phakathi kuka-0 no 200 isib. 199,1 98, 197, __, __, __, 13, __, 191, 190 • ngamashumi phakathi kuka 0 no 200 isib. 110, 120, 130, __, __, __, 170__, __, 200 • ngamakhulu phakathi kuka 0 no 500 isib. 100, 200, 300, __, __, • ngakuhlanu phakathi kuka 0 no 200 isib. 150, 155, 160, __, __, __, 180, __, __, 195, __ • ngakubili phakathi kuka 0 no 200 isib. 180,182, 184, __, __, 190, _, __, __, ___, 200
Indawo nezimo	Unhlangothi-mbili 2-D	Zibone uzisho ngamagama izimo indilinga,unxantathu isikwele kanye nonxande
		Hlela izimo ezinamacala aqondile nalezo ezinamacala ayizindilinga
Isilinganiso	Isikhathi	Funda izinsuku ekhalendeni
		Batshele isikhathi ewashini lezinti ngamahora,uhhafu wehora nekota yehora
	Umthamo	Qagela,ulinganise,uqathanise ulandelanise bese urekhoda umthamo wesitsha ngokusebenzisa izikali ezingalihlelekile isib.izipuni nezinkomishi.
		Hlela nsukuzonke izinto ezinomthamo obhalwe kuzo amamilimitha

IBanga- 3 Ithemu yesi-2: Ukuhlola koku-1

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwano Bazo	Ulwazi lwezinombolo	Bala izithombe zamaqoqo ezinto eziphathekayo (isib.ngamaqoqo 10s, 25s, 50s or 100s) uze ufike ku-500
		Hlela uqhathanise izinombolo uze ufike ema-500
		Funda ubhale izinombolo kusuka 0 - 1 000
	Ukuxazulula izinkinga	Xazulula izinkinga eziphathekayo ufake ukwabelana kwamaqoqo alinganayo kwinombolo ephelele uze ufike ema-75 usebenzisa okukodwa kokulandelayo • yakha ubuye uhlakaze izinombolo • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa kabili • ukusondezela eshumini-10 Bese uchaza ukuthi uyixazulule kanjani leyonkinga
	ukubala	Hlukanisa izinombolo kuya ku 50 nga 2, 5, 10
Amaphethini ubudlelwane Ne-algebra	Amaphathini ezinombolo	Qedela ukubala lezizinombolo ngokulandelana bese ubala uya phambili nasemuva • ngakunye ngakathi kuka- 0 no 500 isib. 389, 399, 400,, __, __, __, 404, __, ____, ____, 40 • ngamashumi phakathi kuka- 0 no 500 no 300, 310, 320, __, __, 350, __, __.370, __, __, 400 • amakhulu phakathi kuka- 0 no 1 000 isib. 1000, 900, 800, __, __, 500, __, __.200, __, 0
Indawo nezimo	Unhlangothi-ntathu 3-D	Zibone usho amagama azo • izimo eziyibhola (spheres) • izimo eziyibhokisi (prisms) • amasilinda
		Hlela izinto eziphathekayo kulezo ezimagwincigwinci nakulezo eziyizicaba
Izilinganiso	Ubude	Qagela,kala, landelanisa bese uqhathanisa ubude nobubanzi nokuphakama usebenzisa izikali ezingahlelekile
		Ukuqagela, ukukala,ukuhlela nokuqhathanisa ubude usebenzisa amamitha

IBanga- 3 Ithemu yesi-2: Ukuhlola kwesi-2

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo izimpawu nobudlelwano Bazo	Ulwazi lwezinombolo	Ukubala uye phambili nasemuva nga- 2s, 4s noma 3s kuya ku 500
	Ukubala	Yenza ukuhlanganisa kufike ku 400 usebenzisa okukodwa okulandelayo • ukwakha nokuhlakaza izinombolo • Umugqa wezinombolo • Ukuphinda ngakubili nokuhlukanisa ngakubili • Ukusondezela eshumini 10 Bhala umusho wezinombolo usebenzise +, =
		Yenza izibalo zokususa usuka ema- 400 noma okungaphansi usebenzisa okukodwa okulandelayo • Ukwakha nokuhlakaza izinombolo • Umugqa wezinombolo • Ukuphinda ngakubili nokuhlukanisa kabili • Ukusodezela eshumini 10 Bhala umusho wezinombolo usebenzisa _, =
Amaphethini, nobudlelwane ne-aljebra	Amamphethini ezinombolo	Qedela lezi zinombolo ngokulandelana • Ukubala ngakubili phakathi kuka -0 no 500 isib. 450, 448, 446, 444, __, __, 438, __, __, 432. • Ukubala ngakune phakathi kuka-0 no 500 isib. 404, 408, 412 __, __, 424, __, 432, __, __, __, 448 • Ukubala ngakuthathu phakathi kuka- 0 no 500 isib. 403,406, 409, __, __,421, __, __,__, 433, 436.
	Amaphethini okusazibalo mdwebo	Kopisha,uqhubeke bese uchaza amaphethini lapho izimo ezehlukene zisetshenziswa khona ukwenza amaqoqo,kodwa izimo zamaqoqo ziyaphindeka ngokufanayo.

IBanga- 3 Ithemu yesi-2: Ukuhlola kwesi-3

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu **Nobudlelwano** **Bazo**	Uwazi lwezinombolo	Bala uye phambili ngaku- 5s, 50s, 100s naphakathi kuka 0 no 500
		Hlakaza izinombolo ezinezinombolo ezintathu ngamakhulu,ngamashumi nangakunye isib. 247 = 200 + 40 + 7
	Ukuxazulula izinombolo	Xazulula bese uchaza umphumela wenkinga efaka ukwabelana ngokulinangana okuholela ezibalweni zamaqhezu
	Izibalo zamaqhezu	Ukubona bese usebenzisa ohhafu, amakota,ingxenye eyodwa kweziyisishagalombili,ingxenye eyodwa kweziyisithupha, ingxenye eyodwa kokuthathu, ingxenye eyodwa kwezinhlanu esimweni esijwayelekile,
		Bona uthole amaqhezu esimweni somdwebo
		Bhala amaqhezu esimweni sika hhafu,izingxenye ezimbili kokuthathu njll etc
Amaphethini, nobudlelwane **Ne-algebra**	Amaphethini ezinombolo	Qedela izinombolo ngokulandelana • Bala ngakuhlanu phakathi kuka-0 - 500 isib. 105, 110, 115, __, __, __, 135, __, __, 150 • Bala ngamashumi amahlanu phakathi kuka-0 - 1000 isib. 550, 600, 650, __, __, 800, __, __, __, 1 000,
Indawo nezimo	Isikhundla nenkomba	Landela izinkomba unyakaze ujikeleze isikole
		Nika izinkomba zokunyakaza ujikeleza isikole
Isilinganiso	Isisindo	Qagela, kala.qhathanisa uhlele bese urekhoda isisindo ngokusebenzisa isikali esihlelekile isib.amabhuloki.izitini njll.
		Hlela izinto eziphathekayo ezibhalwe ama-gremu.

IBanga 3 Ithemu yesi-3: Ukuhlola koku-1

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwano bazo	Ulwazi lwezinombolo	Bala ufike kuma- 750 izithombe ezihlelwe ngamaqoqo (isib: hlela ngamaqoqo angama- 20, 25,50 noma nge- 100)
		Qhathanisa bese ulandelanisa izinombolo uze ufike kuma- 750
		Funda ubhale izimpawu zezinombolo uze ufike ku- 100
	Ukuxazulula izinkinga	Xazulula izinkinga zamagama esimweni esijwayelekile okufaka ukuphindaphinda kuze kufike kuma- 75 usebenzisa okukodwa kwalokhu: • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo number lines • ukuphinda kabili nokuhlukanisa phakathi • ukusondezela emashumini bese uchaza ukuthi uyicazulule kanjani lezo zinkinga
	Ukubala	Ungaphindaphinda oku-2, 5, 10 ufike kusamba esingama- 99 Usebenzisa loku okulandelayo • ama-apharatha • ukudweba • umugqa wezinombolo bhala umugqa wezinombolo usebenzisa u-X, =
Amaphethini, ubudlelwane ne- Aljebra	Izinombolo zamaphethini	Qedela izinamba ngokulandelana ubala uya phambili nasemuva. • ngakunye phakathi kuka- 0 no 750 isib: 665, 666, 667, __, __, __, 671, __, ____, ____, 675__, __, 678 • ngamashumi phakathi kuka- ono 751 isib: 650, 660, 670, __, __, 700, __, __.730, __, __, 760 • ngamakhulu phakathi kuka- 0 no 1000 isib: 0, 100, 200, __, __, 500, __, __.800, __, 1 000

IBanga- 3 Ithemu yesi-3: Ukuhlola kwesi-2

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala uye phambili nasemuva koku- 2s, 20s, 4s, 3s uze ufike kuma- 750
		Hlakaza izinombolo ezinhlangothi ntathu (3-D) ukufika kuma-750 emakhulwini, emashumini nokukodwa isib: 648 = 600 + 40 + 8
	Ukubala	Ungaphindaphinda ngoku - 3, 4 ufike kusamba esingama 99 usebenzisa okukodwa kwalokhu: • ama-apharathas • ukudweba • umugqa wezinombolo • ukuphinda kabili bhala umugqa wezinombolo usebenzisa u-X, =
Amaphethini, ubudlelwane ne-aljebra	Izinombolo zamaphethini	Qedela izinombolo ngokulandelana • bala ngakubili phakathi kuka- 0 naa- 750 isib: 750, 749, 748, __, __, 445, __, __, 742. • bala ngamshumi ababili phakathi kuka - 0 ne - 1000 isib: 800, 820, 840, 860, __, __, 920, __, __, 980 • bala ngokune phakathi kuka- 0 nama- 750 isib: 704, 708, 712 __, __, 724, __, 732, __, __, __, 748 • bala ngokuthathu phakathi kuka - 0 nama- 750 isib:. 630,633, 639, 641, __, __,650, __, __,__, 661
	Amaphethini okusazibalo mdwebo	Kopela, andise aphinde achaze amaphethini ejiyometri ukuthi kwenzeke izimo ezifanayo, kodwa izinombolo zohlobo lwezimo luyandiswa noma luncishiswe ngendlela ejwayelekile.
Indawo nezimo	Unhlangothi mbili 2-D	Uwabone namagama Indilinga, unxantathu, isikwele kanye nonxande
		Dweba indilinga, isikwele, unxande, unxantathu
Ukuqokelelwa nokuhlelwa kolwazi lwezibalo	Ulwazi	akha ibagrafu ephepheni elinezikwele uma unikwe ukuqokelewa nokuhlelwa kolwazi lwezinombolo

IBanga-3 Ithemu yesi-3: Ukuhlola kwesi-3

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala uye phambili ku- 5s, 50s, 25s ufike kuma - 750
	Ukuxazulula izinkinga	Xazulula uphinde uchaze isombululo sezinkinga ezibandakanya ukwahlukaniselana okulinganayo okuholela kumaqhezu
	Amaqhezu	Ukubona nokuhlukanisa izingxenye ezimbili ezahlukanisiwe, ikota, okuyisishiyagalombili, okuthathu, okuyisithupha, okuyisihlanu
		Chaza indlela yemidwebo yamaqhezu
		Khomba ukuthi ukuhlukana phakathi kuphelele
		Bhala amaqhezu ngendlela eyodwa ehlukana phakathi, oku-1 okuhlukaniswe kathathu njll.
Amaphethini, ubudlelwane ne-aljebra	Izinombolo zamaphethini	Qedela izinombolo ngokulandelana Completes number sequences • bala ngakuhlanu phakathi kuka - 0 nama- 750 isib: 705, 710, 715, __, __, __, 735, __, __, 750 • bala ngamashumi amahlanu phakathi kuka- 0 kuya kwi -1000 isib: 1 000, 950, 800, __, __, 650, __, __, __, 450, • bala ngamashumi amabili nanhlanu phakathi kuka- 0 kuya kwi-1000 isib: 525, 550, 575, __, __, 650, __, __, __, 750
Indawo nezimo	Isikhundla	Landela unkomba unyakaze usuka endaweni uya kwenye indawo ekubalazwe elingahlelekile
Isilinganiso	Isikhathi	Shono isikhathi esikuwashi lezinombolo ngamahora nemizuzu
		Sebenzisa ikhalenda ukubala ubude besikhathi ezinsukwini nasemavikini.

IBanga lesi-3 Ithemu yesi-4: Ukuhlola koku-1

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala izithombe zezinto eziliqembu ukufika ku- 1 000
		Hlela uphinde uqhathanise izinombolo kuya ku- 999
	Ulwazi lwezinombolo	Xazulula izinkinga zamagama esimweni esijwayelekile okufaka ukuphindaphinda kuze kufike kuma- 75 usebenzisa okukodwa kwalokhu: • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo number lines • ukuphinda kabili nokuhlukanisa phakathi • ukusondezela emashumini bese uchaza ukuthi uzicazulule kanjani lezo zinkinga
	Ukubala	Hlukanisa izinombolo kuya kuma- 9 ngo- 2, 4, 5, 10, 3
	Imali Money	Xazulula inking yezimali ufake isamba noshintshi wamarandi noma amasenti.
Amaphethini, ubudlelwane ne-aljebra	Izinombolo zamaphethini	Qedela izinamba ngokulandelana ubala uya phambili nasemuva • kokukodwa okuphakathi kuka - 0 ne - 1000 isib: 889, 890, 891,, __, __, __, 895 __, ____, ____, 889__, __, 892 • kokuyishumu okuphakathi kuka - 0 ne 1000 isib: 1000, 990, 980 __, __, 950, __, __.920, __, __, 890
Isilinganiso	Isikhathi	Sebenzisa isikhathi ukubala ubude besikhathi ngamahora namaminithi

IBanga lesi- 3 Ithemu yesi-4: Ukuhlola kwesi-2

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala uye phambili nasemuva koku-2s, 4s, 3s uze ufike ku- 1 000
		Funda uphinde ubhale uphawu lwezinombolo ukufinyelela e- 1 000
	Ukubala	Yenza ukuhlanganisa kusukela ema- 99 nangaphansi usebenzisa okukodwa kwalokhu okulandelayo • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo number lines • ukuphinda kabili nokuhlukanisa phakathi • ukusondezela emashumini bhala umugqa wezinombolo usebenzisa u- +, =,
		Ingabe ukukhipha okukwezinye izinombolo eziyi- 999 noma zingaphansi zisebenzisa lokhu: • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo number lines • ukuphinda kabili nokuhlukanisa phakathi • ukusondezela emashumini bhala umugqa wezinombolo usebenzisa u-X, =
Amaphethini, ubudlelwane ne-aljebra	Izinombolo zamaphethini	Qedela izinamba ngokulandelana • ubala ngakubili phakathi kuka- 0 ne 1000 isib: 1000, 998, 996, __, __, 990, __, __, 984 • ubala ngakune phakathi kuka -0 ne 1000 isib: 840, 844, 852 __, __, 864, __, 872, __, __, __, 894 • bala ngakuthathu phakathi kuka- 0 ne - 1 000 isib: 960,963, 966, 969, 971, __, __,980, __, __,__, 691
Indawo nezimo	Okufana nse nxazombili	Buka bese udweba ulayini wokufana nse nxazombili kunhlangothi mbili izimo ezisazibalo mdwebo nokungezona ezisazibalo mdwebo
Ukuqokelelwa nokuhlelwa kolwazi lwezibalo	Ulwazi	Phendula imibuzo ngolwazi kugrafu yezithombe

IBanga- 3 Ithemu 4: Ukuhlola 3

Ulwazi lwezibalo	Isihloko	Uhla lwezinto ezihlolwayo
Izinombolo, izimpawu nobudlelwane bazo	Ulwazi lwezinombolo	Bala uye phambili koku- 5s, 50s, 25s phakathi kuka - 0 kanye ne - 1 000
	Solve Problems	Xazulula izinkinga zamagama esimweni esijwayelekile okufaka ukuphindaphinda kuze kufike kuma- 50 usebenzisa okukodwa kwalokhu: • ama-apharathasi • imidwebo • ukwakha nokuhlakaza izinombolo • umugqa wezinombolo • ukuphinda kabili nokuhlukanisa phakathi bese uchaza ukuthi uzicazulule kanjani lezo zinkinga
	Ukubala	Ungaphindaphinda ngoku- 3 ukufika kuma- 99 usebenzisa okukodwa kwalokhu • ama-apharathas • ukudweba • umugqa wezinombolo • ukuphinda kabili bhala umugqa wezinombolo usebenzisa u-X, =
Amaphethini, ubudlelwane ne-aljebra	Izinombolo zamaphethini	Qedela izinamba ngokulandelana • bala ngokuhlanu phakathi kuka - 0 ne- 1000 isib: 1 000, 995, 990, 985, __, __, __, 965, __, __, 950 • bala ngamashumi amahlanu phakathi kuka- 0 ne- 1000 isib: 600, 650, 700, __, __, 850, __, __, __, • bala ngamashumi amabili nanhlanu phakathi kuka- 0 ne- 1000 isib: 1 000, 975, 950, __, __, 875, __, __, __, 775
Indawo nezimo	Inhlangothi ntathu (3-D)	Uwabone namagama • izimo ezingamabhola (spheres) • izimo eziyibhokisi (prisms) • amasilinda • ipyramidi • ama-cone
		Ukuhlela izinto eziphathekayo kulezo ezimagwincigwinci nakulezo eziyisicaba
		Chaza izimo ezinhlangothi mbili (2-D) ezenza isicaba kwizomo ezinhlangothi ntathu (3-D)
Isilinganiso	Umthamo	Funda umthamo wamalitha ezithombeni ezilinganisa
		Funda umthamo kumamililitha ezithombeni ezilinganisa ijagi