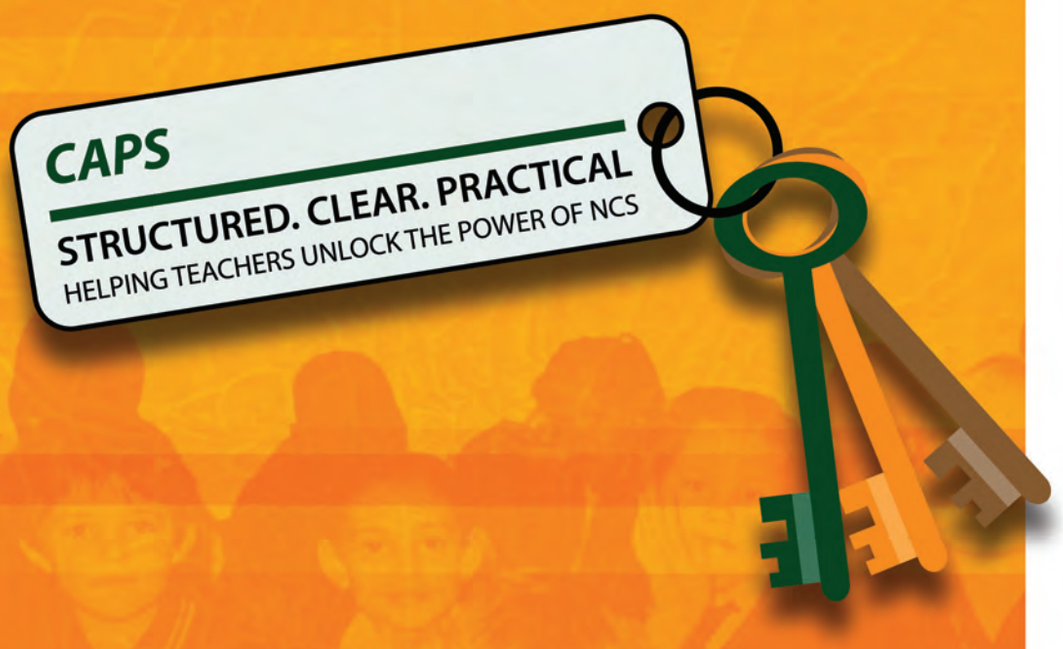
ISIXHOSA MATHEMATICS

National Curriculum Statement (NCS)

Curriculum and Assessment Policy Statement



Foundation Phase
Grade R

basic education
Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

INKCAZELO YEPOLISI YEKHARITYHULAM NOKUHLOLA

IBANGA LABAQALAYO (R)

MATHEMATIKA

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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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ISAHLUKO SOKU-1: INTSHAYELELO NEMVELAPHI

1.1 IMVELAPHI

I*Nkcazelo yeKharityhulam yeSizwe yeBanga R - 12 (NKS*) icacisa ipolisi yekharityhulam nokuhlola ezikolweni.

Ukuphucula ukusetyenziswa kwayo, iNkcazelo yeKharityhulam yeSizwe ihlaziyiwe, yaye uhlaziyo luya kuqala ukusebenza ngeyoMqungu/ngoJanyuwari 2012. Isifundo ngasinye senzelwe uxwebhu olunye lwePolisi yeKharityhulam nokuHlola endaweni yala maxwebhu madala angala: INkcazelo yeKharityhulam yeSizwe, iziKhokelo zeNkqubo yokuFunda kunye neziKhokelo zokuHlola zesiFundo kwiBanga R - 12.

1.2 AMAGQABANTSHINTSHI

(a) *INkcazelo yeKharityhulam yeSizwe (NKS) yeBanga R - 12 (EyoMqungu/Janyuwari 2012)* imele inkcazelo yepolisi yokufunda nokufundisa kwizikolo zoMzantsi Afrika yaye iquka oku kulandelayo:

(i) INkcazelo yePolisi yeSizwe yeKharityhulam nokuHlola yesifundo ngasinye kwezo zifundo zivunyiweyo zesikolo;

(ii) Uxwebhu lwepolisi oluthi, *National policy pertaining to the programme and promotion requirements of the National Curriculum Statement Grades R - 12.*; kunye

(iii) Noxwebhu lwepolisi oluthi, *National Protocol for Assessment Grades R - 12 (EyoMqungu/Janyuwari 2010).*

(b) Uxwebhu oluthi, *National Curriculum Statement Grades R - 12 (eyoMqungu/Janyuwari 2012)* lungena endaweni yala maxwebhu eNkcazelo yeKharityhulam yeSizwe mabini alandelayo:

(i) i*Revised National Curriculum Statement Grades R - 9, Government Gazette No. 23406 of 31 May 2002*, kunye

(ii) ne*National Curriculum Statement Grade 10 - 12 Government Gazettes, No 25545 of 6 October 2003 and No. 27594 of 17 May 2005*.

(c) Amaxwebhu enkcazelo yekharityhulam yesizwe ekuthethwe ngawo kwimihlathana (a) no(b) aquka la maxwebhu epolisi alandelayo, aza kuthi aye eyekiswa ngokuyekiswa, engenelewa yi*National Curriculum Statement Grades R - 12 (eyoMqungu/Janyuwari 2012)* ngo2012 - 2014:

(i) INkcazelo yeKharityhulam yeSizwe yezifundo ngezifundo, isiKhokelo seNkqubo yokuFundisa kunye nesiKhokelo sokuHlola sesiFundo yeBanga R - 9 neyeBanga 10 - 12;

(ii) Uxwebhu lwepolisi oluthi, *National Policy on assessment and qualifications for schools in the General Education and Training Band*, olubhengezwe kwi*Government Notice No. 124* ekwi*Government Gazette No. 29626* of 12 February 2007;

(iii) Uxwebhu lwepolisi oluthi, the *National Senior Certificate: A qualification at Level 4 on the National Qualifications Framework (NQF)*, olubhengezwe kwi*Government Gazette No.27819* of 20 July 2005;

(iv) Uxwebhu lwepolisi oluthi, *An addendum to the policy document, the National Senior Certificate: A qualification at Level 4 on the National Qualifications Framework (NQF), regarding learners with special needs,* olupapashwe kwi*Government Gazette, No.29466* of 11 December 2006, lufakwe kuxwebhu lwepolisi oluthi, *National policy pertaining to the programme and promotion requirements of the National Curriculum Statement Grades R - 12;* kunye

(v) Uxwebhu lwepolisi oluthi, *An addendum to the policy document, the National Senior Certificate: A qualification at Level 4 on the National Qualifications Framework (NQF), regarding the National Protocol for Assessment (Grades R - 12)*, olubhengezwe kwi*Government Notice No.1267* in *Government Gazette No. 29467* of 11 December 2006.

(d) Uxwebhu lwepolisi oluthi, *National policy pertaining to the programme and promotion requirements of the National Curriculum Statement Grades* R - 12; kunye namacandelo akwiPolisi yeKharityhulam nokuHlola njengoko ebonisiwe kwisahluko sesi-2, 3 nesesi-4 solu xwebhu aqulethe izithethe nemigangatho ye*Nkcazelo yeKharityhulam yeSizwe yeBanga R - 12.* Ngoko ke, olu xwebhu luya kuthi, ngokwe*candelo 6A* le*South African Schools Act* (uMthetho oLawula iZikolo zaseMzantsi Afrika), *ka1996 (uMthetho wama-84 ka1996,)* lwenze isiseko sokuxhobisa umPhathiswa weMfundo esisisiSeko ukuba akwazi ukubeka awona manqanaba aphantsi eziphumo nemigangatho, ngokunjalo neenkqubo nemigaqo yokuhlola inkqubela phambili yabafundi, manqanaba lawo za kusebenza kwizikolo zikaRhulumente nezabucala.

1.3 IINJONGO EZIPHANGALELEYO ZEKHARITYHULAM YOMZANTSI AFRIKA

(a) *INkcazelo yeKharityhulam yeSizwe yeBanga R - 12* inika isikhokelo kulwazi, izakhono nezithethe ezinokufundwa ezikolweni zaseMzantsi Afrika. Le kharityhulam ijonge ukuqinisekisa ukuba abafundi bafumana ulwazi nezakhono ngeendlela ezihambelana nobomi babo bemihla ngemihla. Kungoko ke le kharityhulam ikhuthaza uluvo lokusebenzisa kakhulu iimeko zalapha, kodwa ibe ikwayise iso nemiba ebalulekileyo yehlabathi jikelele.

(b) INkcazelo yeKharityhulam yeSizwe yeBanga R - 12 yenza oku kulandelayo:

- Ixhobisa abafundi ngolwazi, izakhono nezithethe eziya kubanceda ukuba bakwazi ukuzimela nokuthabatha inxaxheba ekuhlaleni njengabemi belizwe elikhululekileyo; nokuba bavela kweyiphi imo yezentlalo, uhlanga, isini, bekhangeleka njani ngokomzimba okanye bekuliphi inqanaba lengqiqo;
- Ivulela abafundi amathuba okuya kwimfundo ephakamileyo;
- Incedisa abafundi ukuba bakwazi ukuphuma kumaziko emfundo baye kumaziko omsebenzi; yaye
- Inika abaqeshi umfanekiso ocacileyo ngobuchule nolwazi abanalo abafundi.

(c) INkcazelo yeKharityhulam yeSizwe yeBanga R - 12 isekelwe phezu kwale mithetho-siseko ilandelayo:

- *Ukuphuculwa kwezentlalo:* ukuqinisekisa ukuba kuyalungiswa ukungalingani kwezemfundo okwabangelwa lixesha lobandlululo, nokuba bonke abemi banikwa amathuba emfundo alinganayo;
- *Ukufunda ngokubandakanyeka kusetyenziswa ingqiqo:* ukukhuthaza indlela yokufundisa efuna abafundi ukuba bathathe inxaxheba bebonakalisa ingqiqo, endaweni yokufunda ngokubethelela izimvo nokufunda nje bengaziqiqisisi iinyaniso okanye izimvo abazinikwayo;
- *Ulwazi nezakhono ezikumgangatho ophakamileyo:* ukubekwa kweyona migangatho isezantsi yolwazi nezakhono ekufuneka abafundi bezibonakalise kwibanga ngalinye, kananjalo nokumiselwa imigangatho ephezulu enokufikelelwa kuzo zonke izifundo;

- *Ukuqhubela phambili:* umxholo wokufundwayo neemeko ekufundwa phantsi kwazo kwibanga ngalinye ubonisa ukuqhubela phambili, ukususela kokulula ukuya koko kuntsonkothileyo;

- *Amalungelo oluntu, uqukaniso, ukukhathalelwa kokusingqongileyo nobulungisa bezentlalo:* ukufakwa kwemithetho-siseko neendlela zokwenza ubulungisa kwezentlalo nokukhathalela indalo esingqongileyo kwanamalungelo oluntu, njengoko ebekiwe kuMgaqo-siseko weRiphablikhi yoMzantsi Afrika. INkcazelo yeKharityhulam yeSizwe yeBanga 10 - 12 ibonakalisa uvakalelo kwimiba yeyantlukwano enjengendlala, ukungalingani, uhlanga, isini, ulwimi, ubudala, ukuba nenkubazeko neminye imiba;

- *Ukuxatyiswa kolwazi lwemveli:* ukuthathela ingqalelo ubutyebi bembali kunye nelifa lemveli leli lizwe njengeentsika zokuxhasa izithethe eziqulethwe nguMgaqo-siseko; kunye

- *Nentembeko, umgangatho ophezulu, kunye negalelo elibonakalayo:* ukunika imfundo enokuthelekiseka neyamanye amazwe ngokomgangatho, ukunatyiswa kwanokungena nzulu kwayo kwimiba efundiswayo.

(d) INkcazelo yeKharityhulam yeSizwe yeBanga R - 12 ijonge ukuphuhlisa abafundi abakwaziyo:

- ukuchonga nokusombulula iingxaki bathabathe izigqibo besebenzisa ingqiqo nokucinga okubonakalisa ubugcisa;
- ukusebenza ngempumelelo bebodwa naxa bekunye nabanye njengamalungu eqela;
- ukuzicwangcisa nokuzilawula bona buqu kunye nemisebenzi yabo ngentembeko nangempumelelo;
- ukuqokelela, ukuhlalutya, ukucwangcisa nokuhlaba amadlala ulwazi;
- ukunxibelelana nabanye ngempumelelo besebenzisa ubuchule bokubonwayo, bemiqondiso kunye/okanye nezinye izakhono zolwimi ngeendlela ezahlukileyo;
- ukusebenzisa inzululwazi nobuchwepheshe ngempumelelo nangokubonakalisa ukuba noxanduva ngokunengqiqo ekukhathaleleni indalo esingqongileyo nempilo yabanye; kunye
- nokubonisa ukuliqonda ihlabathi ukuba liyiseti yezinto ngezinto ezizalanayo ngokuqaphela ukuba iimeko ezisonjululwa phantsi kwazo iingxaki azizimelanga zodwa geqe.

(e) Ukuqukaniswa kwemfundo kufuneka kube ngundoqo ekulungiseleleni, ekucwangciseni nasekufundiseni kwisikolo ngasinye. Oku kunokwenzeka kuphela xa bonke ootitshala benolwazi oluphangaleleyo malunga nendlela yokuqonda nokusombulula izidingo zokufunda kunye nendlela yokucwangcisela abafundi abangafaniyo.

Undoqo ekulawuleni ukuqukaniswa kwemfundo kukuqinisekisa ukuba izidingo ziyachongwa zize zisonjululwe ngawo onke amaqela enkxaso efanelekileyo asesikolweni, aquka ootitshala, amagosa esithili, amaQela eNkxaso amaZiko athile, abazali neZikolo zabaFundi abaneeMfuno eZizodwa njengamaZiko aXhobisa ngoLwazi. Ukusombulula izidingo eklasini, ootitshala mabasebenzise iindlela ngeendlela zokujongana neyantlukwano kwikharityhulam ezifana nezo zikuxwebhu lweSebe leMfundo esisisiSeko oluthi *Guidelines for Inclusive Teaching and Learning (2010).*

1.4 UKWABIWA KWEXESHA

1.4.1 IsiGaba esisisiSeko

(a) Ixesha elabelwe ukufundisa kwisiGaba esisisiSeko limi ngolu hlobo:

ISIFUNDO	IBANGA R (IIYURE)	IBANGA 1-2 (IIYURE)	IBANGA 3 (IIYURE)
ULwimi lwaseKhaya	10	7/8	7/8
ULwimi lokuQala oloNgezelelweyo		2/3	3/4
Izibalo	7	7	7
IzaKhono zoBomi • ULwazi lokuQala • UbuGcisa beZandla • EzemiThambo • UkuziPhatha neNtlalo	6 (1) (2) (2) (1)	6 (1) (2) (2) (1)	6 (1) (2) (2) (1)
LILONKE	**23**	**23**	**25**

(b) Ixesha elabelwe ukufundisa leBanga R, 1 nelesi-2 ziiyure ezingama-23. IBanga lesi-3 ziiyure ezingama-25.

(c) IBanga R - 2 labelwe iiyure ezilishumi, zize zibe li-11 kwiBanga lesi-3. ULwimi lwaseKhaya lwabelwe ezona lwimi zininzi ezisi-8 nezona zimbalwa ezisi-7; luze uLwmi oLongezelelweyo lwabelwe ezona zimbalwa zibe 2 zize ezona zininzi zibe 3 kwiBanga R - 2. KwiBanga lesi-3 ezona yure zininzi zisi-8, zize zibe si-7 ezona zimbalwa kuLwimi lwaseKhaya; kanti kuLwimi oloNgezelelweyo ezona zimbalwa zi-3, zize ezona zininzi zibe 4.

(d) IMathematika yabelwe iiyure ezisi -7.

(e) KwizaKhono zoBomi, uLwazi lokuQala lwabelwe iyure e-1 kwiBanga R - 2, zi-2 kwiBanga lesi-3, njengoko kubonisiwe kwizibiyeli kwiBanga.

1.4.2 IsiGaba esiPhakathi

(a) Ixesha elabelwe ukufundisa kwisiGaba esiPhakathi limi ngolu hlobo:

ISIFUNDO	IIYURE
ULwimi lwaseKhaya	6
ULwimi lokuQala oloNgezelelweyo	5
IMathematika	6
INzululwazi nobuChwepheshe (neTeknoloji) beNdalo	3,5
INzululwazi yezeNtlalo	3
IzaKhono zoBomi • UbuGcisa beZandla • EzemiThambo • UkuziPhatha neNtlalo	4 (1,5) (1) (1,5)
ZIZONKE	**27,5**

1.4.3 IsiGaba esiPhezulu

(a) Ixesha elabelwe ukufundisa kwisiGaba esiPhezulu limi ngolu hlobo:

ISIFUNDO	IIYURE
ULwimi lwaseKhaya	5
ULwimi lokuQala oloNgezelelweyo	4
IMathematika	4,5
IiNzululwazi zezeNdalo	3
INzululwazi yezeNtlalo	3
UbuChwepheshe (iTeknoloji)	2
INzululwazi yoLawulo lwezoQoqosho	2
IziFundo ngezoBomi	2
UbuGcisa neNkcubeko	2
ZIZONKE	**27,5**

1.4.4 IBanga 10 - 12

(a) Ixesha elabelwe ukufundisa iBanga 10 - 12 limi ngolu hlobo:

IZIFUNDO	IIYURE
1. ULwimi lwaseKhaya	**4.5**
2. ULwimi lokuQala oloNgezelelweyo	**4.5**
3. IMathematika	**4.5**
4. IziFundo ngezoBomi	**2**
5. Ubuncinane bazo naziphi izifundo ezithathu ezikhethwe **kwiQela B** isiHlomelo B, iiTheyibhile B1 – B8 zoxwebhu lwepolisi oluthi, *National policy pertaining to the programme and promotion requirements of the National Curriculum Statement Grades R – 12,* ngokuxhomekeke kwimigaqo ebekwe kumhlathi wama-28 wolu xwebhu lwepolisi.	**12 (3x4yr)**
ZIZONKE	**27,5**

Ixesha elabelwe ukufundisa ngeveki malisetyenziselwe ukufundisa izifundo ngokweemfuno zezifundo zeNkcazelo yeKharityhulam yeSizwe yeBanga R - 12 (NKS) ezichatshazelwe apha ngasentla, hayi ezinye izifundo ezongezelelweyo. Ukuba umfundi ufuna ukongeza izifundo, makongezelwe elinye ixesha lezo zifundo azongezileyo.

ISAHLUKO SESI- 2: INKCAZELO, IINJONGO, IZAKHONO NOMXHOLO

2.1 INTSHAYELELO

KwisiGaba esisisiSeko, izakhono eziphambili kwiKharityhulam yoLwimi lwaseKhaya zezi:

Kwicandelo lesibini, isiGaba sesiSeko seMathematika iNkcazelo yePolisi yeKharityhulam nokuHlola inika ootitshala ingcaciso yeMathematika, iziphumo ezingundoqo, izakhono ezingundoqo, ugxininiso kumxholo, umthamo weenkalo zemixholo, izixhobo zokufunda ezinokusetyenziswa kwisifundo seMathematika kwisiGaba esisiSeko, izikhokelo ezinokusetyenziswa ukuxhasa abafundi abaneengxaki ekufundeni iMathematika, ukubala ngentloko nokomeleza ukufundisa izakhono zokubala kwabaqalayo kwiBanga labaQalayo.

2.2 YINTONI IMATHEMATIKA?

IMathematika lulwimi olusenza ukuba sisebenzise iisimboli namanani ukuchaza ulwalamano lwamanani lwejiyometri nolweegrafu. Ngumsebenzi owenziwa ngabantu oquka iipateni zokuqaphela, zokumela nezokuphanda nezolwalwamano ngokomgangatho ophathekayo nezokuhlala naphakathi kwezinto ngokokwazo. Incedisa ukwakha inkqubo yokubala ngentloko eqinisa ukusebenzisa ukucinga nzulu, ngokuchanekileyo nokwenza izisombululo eziza kukhokelela ekuthatheni izigqibo ezizizo.

2.3 IINJONGO EZINGUNDOQO

Iinjongo zokufunda nokufundisa iMathematika kukuphuhlisa ezi zinto zilandelayo kumfundi:

- Izinto ezingundoqo kunxibelelwano lweMathematika zisetyenziswa kwezentlalo, kwezisingqongileyo, kwezenkcubeko nezobudlelwano ngezoqoqosho;
- Ukuzithemba nokukwazi ukumelana nayo nayiphi imeko yeMathematika ngaphandle koloyiko lwayo;
- Ukufuna ukwazi nokuthanda iMathematika;
- Ukuncoma, ukuyonwabela, ubuhle nondiliseko lweMathematika;
- Ukuqaphela ukuba iMathematika inecandelo lobugcisa obenziwa ngabantu;
- Ulwazi olunzulu lweengqiqo ukunika intsingiselo yeMathematika; kunye
- Nokufumana ulwazi olungundoqo nezakhono ezifunekayo:
    - Ukusebenzisa iMathematika kwizinto ezibonwayo, kwezentlalo nezokusombulula iingxaki zeMathematika;
    - Ukufunda izifundo ezinxulumeneyo; kunye
    - Nokufunda banzi ngeMathematika.

2.4 IZAKHONO EZINGUNDOQO

- Ukwakha izakhono ezingundoqo zeMathematika, umfundi kufuneka:
- Akhe isigama esichanekileyo seMathematika;
- Akhe isigama samanani, ingqiqo yamanani, ukubala nokusebenzisa izakhono;
- Afunde ukumamela, ukuthetha, ukucinga, nokuqiqa usebenzisa ulwazi olufumeneyo;
- Afunde ukuphanda, ukuhlalutya, ukumela ukutolika ulwazi;
- Afunde ukubuza imibuzo nokusombulula iingxaki; kunye
- Nokwakha ulwazi nokubaluleka kweMathematika nendima eyidlalayo ebomini, nakuphuhliso lobume bomfundi.

2.5 IINKALO ZEMIXHOLO EKUGQALWE KUYO

IMathematika kwisiGaba esisisiSeko siquka iinkalo ezintlanu. Inkalo nganye yongeza kulwazi lwezakhono ezingundoqo. Le theyibhile ingezantsi ibonisa ugxininiso jikelele lweenkalo zemixholo kunye nezakhono eziziinkalo kwisiGaba esisisiSeko.

Itheyibhile 2.1 Umxholo ekugqalwe kuyo kwiMathematika yesiGaba esisisiSeko

ULWAZI LOMXHOLO LWEMATHEMATIKA		
Iinkalo zemixholo	**Umxholo ekugqalwe kuyo jikelele**	**Umxholo ekugqalwekuyo kwisiGaba esisisiSeko**
Amanani, liOpareyshini nolwalamano	Ulwazi/ uphuhliso lwamanani luquka: • Intsingiselo yeendidi zamanani ahlukeneyo; • Ukuzalana phakathi kweendidi zamanani ahlukeneyo; • Ukuzalana ngobukhulu beendidi zamanani ezahlukeneyo; • Ukuboniswa kwamanani ngeendlela ezahlukeneyo; kunye • Nefuthe lokusebenza ngamanani.	Uluhlu lwamanani oluphuhliswa kwiBanga lesi-3 luquka amanani azeleyo ukuya kwi-1000 namaqhezu aqhelekileyo. Kwesi sigaba, ingqiqo ngamanani yabafundi iphuhliswa ngezinto eziphathwayo ukubala ingqokelela yezinto, ipatishini, ukudibanisa iikhwantithi, ukubala ngokuqakatha ngeendlela ezahlukeneyo, ukusombulula izibalo zamazwi, nokwakha nokwahlula amanani. • Ukubala kunceda abafundi ekuphuhliseni ingqiqo ngamanani, ukubala ngentloko, uqikelelo, izakhono zokubala nokunakana iipateni. • Ingqiqo yamanani ikhulisa abafundi ngeemilo zamanani ikwaphuhlisa iindlela ezinokwenza kube lula ukubala. • Ukusombulula iingxaki kunceda abafundi ekuchazeni iindlela abacinga ngayo ngokuthetha nangokubhala ngokuba bazobe benze neesimboli. • Abafundi bakhulisa ulwazi lwabo lwabasaqala ukubala ngokudibanisa, ngokuthabatha ngokuphindaphinda nangokwahlulahlula. • Abafundi baphuhlisa ulwazi lwabo lwamaqhezu ngokubala basombulule izibalo kuquka nokwaba izinto eziphathekayo nangokusebenzisa imizobo.Iingxaki zezibalo maziquke nezisombululo eziza kunikwa nemazisekelwe kumanani apheleleyo okanye amaqhezu, ukwehlulelana makungaquki ukufumana amanani apheleleyo qha, makuquke nokufumana ukuqokelelwa kwengqokelela yezinto. Kweli nqanaba, abafundi abalindelekanga ukuba bafunde nokuba babhale iisimboli zamaqhezu.

ULWAZI LOMXHOLO LWEMATHEMATIKA		
linkalo zemixholo	**Umxholo ekugqalwe kuyo jikelele**	**Umxholo ekugqalwekuyo kwisiGaba esisisiSeko**
liPateni, iiFankshini neAljibra	I-Aljibra lulwimi lokufunda nokuthetha ngoninzi lweMathematika yaye lungagqithiselwa nasekufundweni kwemisebenzi nokunye ukuzalana kwezinto. Esona siseko sale nkalo yomxholo kukuba abafundi bafumane izakhono ezaneleyo ekusebenziseni iAljibra. Kukwagqalwe: • ukucaciswa kweepateni nokuzalana kwazo kusetyenziswa ukubonisa ulwazi lweesimboli, iigrafu, neetheyibhile, kunye • ukufuna uchaze ukungatshintshi nokutshintsha kweepateni, kunye nokuzalana okwenza abafundi ukuba benze uqikelelo nokusombulula iingxaki.	Kwesi sigaba, abafundi basebenzisa zombini: • Iipateni zamanani (umzekelo: ukubala ngokuqakatha); kunye • Neepateni zejiyometri (umzekelo: imizobo). Abafundi mabasebenzise izinto eziphathekayo, imizobo neesimboli xa bekhuphela, besongeza, bechaza naxa besenza iipateni. Ukukhuphela iipateni kunceda abafundi ukubona indlela eyiyo ezenziwe ngazo iipateni. Ukongeza iipateni kunceda abafundi ukuba bakhangele ukuba bazilandele kakuhle na iipateni. Ukuchaza iipateni kunceda abafundi ukuba baphuhlise izakhono zabo zolwimi. Ukubethelela kulandelelwano lweepateni kwenza isiseko sokuphuhlisa izakhono zokucinga ngeAljibra. Iipateni zamanani zincedisana nophuhliso lokwazi nokwakha amanani, ukusebenzisa nolwalamano lwamanani. Iipateni zejiyometri ziquka ulandelelwano lwemigca, inkangeleko, nezinto kunye neepateni zelizwe jikelele, kwiipateni zejiyometri abafundi basebenzisa ulwazi lwabo lwesimo nobume.
IsiThuba neMilo(ijiyometri)	Ukufunda isiThuba neMilo kunceda ekulandeleni nasekuthandeni ipateni, ekulandeleni, ukuphumelela nasekuboneni ubuhle kwizinto zendalo nenkcubeko. Ibethelela: • kwiimpawu, ulwalamano; • ukuziqhelanisa, iindawo; kunye • nenguqulelo yezinto ezinokwakheka kuka 2-D no 3-D.	Kwesi sigaba abafundi babethelela kwizinto ezinokwakheka kuka 2-D no 3-D, iimo, iindawo nezalathiso. • Abafundi bafunda ngezinto ezinembonakalo yamacala amathathu neemo ezinembonakalo yamacala amabini, ukwahlula, ukwahlula ngakwamaqela, ukuchaza nokubiza agama azo. • Abafundi bazoba iimilo bakhe ngezinto. • Abafundi bayazitshintsha bazichaze iimilo nezinto ezikwiindawo ezibangqongileyo ezifana nezinto neemilo zeMathematika. • Abafundi bachaza indawo ezikuyo izinto, bona nabanye besebenzisa isigama. • Abafundi balandela benika izalathiso.
Imilinganiselo	Umlinganiselo ubethelela ekukhetheni nasekusebenziseni imivo ngokufanelekileyo, izixhobo, neefomyula ukuqikelela ubungakanani beempawu zeziganeko, iimo, izinto nokusingqongileyo. Ijongene ngqo nolwazi lwenzululwazi, iteknoloji nezezimali kwilizwe jikelele, inceda umfundi ukuba: • Enze uqikelelo olwenza okuvakalalyo; yaye • Aqonde ulwazi lwemilinganiselo neziphumo zazo.	• Kwesi sigaba, ulwazi lwabafundi kumlinganiso luphuhliswa ngokwenza izinto ezahlukeneyo besebenzisa izinto eziphathekayo, iimilo, befunda iimpawu zobude, umthamo, ubunzima, ieriya nexesha. • Abafundi balinganisa umthamo weemilo zezinto besebenzisa iiyunithi ezingamiselekanga apho kufanelekileyo, ezinjengezandla, izantya, nezikhongozeli, njalo njalo. • Abafundi bathelekisa ubuninzi ngokwahlukeneyo besebenzisa isigama sokuthelekisa esinje ngobude/ ubufutshane, ubunzima/ ubukhaphukhaphu, njalo njalo. • Abafundi baziswa kwiiyunithi ezinjengeegrem, iikhilogrem, iimililitha, iilitha, iisentimitha neemitha. Imisetyenzana yexesha kufuneka ibekelelwe abafundi baqhelaniswe ukwazi ixesha elidlulayo phambi kokuba bakwazi ukulifunda.

ULWAZI LOMXHOLO LWEMATHEMATIKA		
Iinkalo zemixholo	**Umxholo ekugqalwe kuyo jikelele**	**Umxholo ekugqalwekuyo kwisiGaba esisisiSeko**
Ukusebenzangowazi oluqokelelweyo	Kwindlela yokusebenza ngolwazi oluqokelelweyo, abafundi babonisa izakhono: • zokuqokelela; • ukucwangcisa; • ukubonisa; kunye • nokuhlalutya ucacise ulwazi olunikiweyo.	Ugxininiso kumaBanga asisiseko ekufundiseni nasekufundeni indlela yokusebenza ngolwazi oluqokelweyo ukuhlela izinto nedatha ngeendlela ezahlukeneyo, zixhomekeke kubomi bezinto nedatha. • Abafundi kulindeleke ukuba batolike ze bakhe iigrafu zemifanekiso neegrafu zezitena ngongqamaniso lwamanani nedatha abayinikiweyo.

2.6 ULWABIWO LWEENKALO ZEMIXHOLO

Ulwabiwo lweenkalo zeMathematika lunceda iinkalo ezimbini: ulwabiwo lunika isikhokelo ngexesha emalinikwe nokufundisa kwinkalo yomxholo ngokufanelekileyo; okwesibini ulwabiwo lunika isikhokelo ngendlela umxholo omawuhlolwe ngayo.

Ulwabiwo lweenkalo zemixholo alufani kumaBanga esiGaba esisisiSeko.

Itheyibhile 2.2 Ulwabiwo lweenkalo zemixholo kwisiGaba esisisiSeko

ULWABIWO LWEENKALO ZEMIXHOLO			
Ummandla womxholo	**IsiGaba 1**	**IsiGaba 2**	**IsiGaba 3**
Amanani, ii-Opareyshini noLwalamano*	65%	60%	58%
Ipateni, iiFankshini neAljibra	10%	10%	10%
Isithuba nesimo (Ijiyometri)	11%	13%	13%
Imilinganiselo	9%	12%	14%
Ukusebenzisa nolwazi oluqokelelweyo	5%	5%	5%
	100%	**100%**	**100%**

*KwisiGaba sabaQalayo (R - 3), kubalulekile ukuba kugxininiswe ekufundiseni amanani, ukusebenza nolandelelwano kwiMathematika. Kubalulekile ukuba abafundi baphume bewazi kakuhle amanani bekwazi nokubala. Injongo kukuba abafundi baqiniseke bazithembe kumanani nasekubaleni. Ngenxa yesi sizathu ixesha lokufundisa amanani, ukusebenza nolandelelwano longeziwe. Uninzi lomsebenzi kwipateni malenziwe kwiipateni zamanani ukubethelela ulwazi lwabafundi ngamanani.

2.7 IMATHEMATIKA KWISIGABA ESISISISEKO

IMathematika yesiGaba esisisiSeko iqinisa uqhagamshelwano phakathi kobomi babafundi abasaqalayo naBangaphandle esikolweni, neMathematika enzima kwiizigaba ezingaphambili kwelinye icala. KwisiGaba sabaQalayo, abafundi mabakrotyiswe kwimiba yeMathematika ebanika amathuba okuba bathethe baze barekhodishe iingcinga zabo zeMathematika.

Ixesha elichithwa ekufundiseni iMathematika linegalelo ekuphuhliseni ulwazi lwengqiqo nezakhono kubafundi. Imisetyenzana ekufuneka abafundi beyenzisiwe kukuba akufunekanga ibe ngxaka-ngxaka koko kufuneka igxininiswe kwingqiqo yeKharityhulum yeMathematika.

2.7.1 Izikhokelo zolawulo lweklasi

Ixesha elisikelwe ukufundisa iMathematika kusuku ngalunye kufuneka luthathwe njengepiriyodi. Ngepiriyodi yeMathematika ezi zinto zilandelayo kufuneka zenzeke:

- **Imisebenzi yeklasi yonke**
  - IMathematika ebalwa ngentloko
  - Ukuqukunjelwa kwemisebenzi yengqiqo
  - Ukulawula iklasi (ukunika imisebenzi yomfundi ngamnye, njalo njalo.)
- **Ukufundisa amaqela amancinci**
  - Ukubala
  - Uphuhliso lwamanani engqiqo (imisebenzi yokuthetha neyenziwa ngezandla)
  - Ukusombulula iingxaki (imisebenzi yokuthetha neyenziwe ngezandla)
  - Ukurekhodisha okubhaliweyo
  - Ukuphuhlisa iindlela zokubala (imisebenzi yokuthetha neyenziwe ngezandla)
  - Iipateni
  - Isithuba nesimo
  - Imilinganiselo
  - Indlela yokusebenza ngolwazi oluqokelelweyo
- **Ukusebenza wedwa**

  Abafundi bayaziqhelanisa baqukumbele iingqiqo eziphuhliswe ekufundisweni kwiklasi yonke nakumaqela amancinci.

  *Imisebenzi yeklasi yonke***:** apho kugxininiswa kubalo lwentloko, makubekho uqukumbelo lwengqiqo nokunikwa imisebenzi kangangemizuzu engama-20 ngosuku ekuqaleni kwesifundo seMathematika. Ngeli xesha utitshala uza kusebenza neqela lonke leklasi eqwalasela ekwarekhodisha, apho kufanelekileyo, amagama eentsuku zeveki, umhla, abafundi abakhoyo nabangekhoyo esikolweni nokuba injani imo yezulu. Ukubala ngentloko kuquka ukubala ngentloko okukhawulezileyo okunje ngokuthi “inani phambi nasemva kwesi-8 ngu-2 ngaphezu/ngaphantsi ko-8 ngu: 4+2; 5+2; 6+2” njalo njalo. Ngeli thuba utitshala makaqukumbele iingqiqo ezinobunzima. Enye into ebalulekileyo utitshala amakayenze kukuba anike iklasi yakhe imisebenzi ephangaleleyo nemisebenzi abayenza bodwa ngokwabo ngelixa ancedisana namaqela amancinci.

  Imisebenzi yamaqela amancinci: olona hlobo lusebenzayo kuxa utitshala esebenza ngamaqela amancinci (8 ukuya kwi-12) anabafundi abalingana ngokucinga emethini okanye ezitafileni, ngelixa abanye besebenza bodwa. Utitshala usebenza ngokuthetha nangokwenza nabafundi, besebenza imisebenzi enjengokubala, uku-qikelela, uphuhliso lwengqiqo lwamanani nokusombulula iingxaki, nemisebenzi yeepateni, izithuba neemilo, imilinganiso, indlela yokusebenza ngolwazi oluqikelelweyo, ekufuneka icwangciswe ngobunono.

  Ukwenzela ukubethelela ukufunda, ukubhala makube yinxalenye yemisebenzi yamaqela apho kunokwenzeka.

  Abafundi mababe nezinto zokubhala (umzekelo: iincwadi zokubhala) zemisebenzi yokusombulula iingxaki. Imisebenzi yamaqela mayibe nonxibelelwano, abafundi mabakhuthazwe ukuba “benze, bathethe baze barek-

hodishe" iingcinga zabo ngeMathematika.

Ootitshala mabazame ukungabajongeli phantsi abafundi abaqonda kade; nabo kufuneka banikwe imisetyenzana enzima. Kuba lula ukuxuba imisebenzi kwiqela labantwana abakwinqanaba elilinganayo lokucinga. Kodwa amaqela axubeneyo asebenza kakuhle ukwakha, ukulinganisa iipateni nokuhlela okanye imidlalo.

Imisebenzi eyenziwa ngabanye: ngeli lixa utitshala asebenza ngeqela elincinci, amanye amaqela makenze imisebenzi yeMathematika eyahlukeneyo ebethelela nequkumbela iingqiqo nezakhono ebezifundisiwe kumaqela amancinci. Imisebenzi eyenziwa ngabanye mayohlula-hlulwe ukulungiselela amaqela ahlukeneyo ngokucinga. Imisebenzi yamaqela azimeleyo aquka:

- Iincwadi zemisebenzi;
- Incwadi zemisebenzi yokubhala/ amakhadi okubala, ukudlala ngamanani, imisebenzi elula ngokusemxholweni, njalo njalo;
- Imidlalo yeMathematika enjengeLudo, dominos, iiphazili ; kunye
- Nemisebenzi equka ukwakha, ukuHlola, iipateni okanye imilinganiselo.

Iphiriyodi yeMathematika kufuneka incede abafundi abaneengxaki zokufunda, nemisebenzi yabantwana abakrele-krele nemisebenzi yokuHlola, njalo njalo.

Imisebenzi yamaqela amancinci nazimeleyo mayijongwe, ikorekishwe ngutitshala njengemisebenzi yohlaziyo ecwangcisiweyo nengacwangciswayo.

Ukujongwa kwendlela abafundi abafunda nabafundiswa ngayo incedisa utitshala ukuba enze uhlaziyo oluqhubekayo, alandele ukujonga inkqubo yabo aze acwangcise imisebenzi yokuncedisana nabafundi abafumana iingxaki.

2.7.2 Abafundi abaneengxaki zokufunda kwiMathematika

Kubalulekile ukuba abafundi abaneengxaki zokufunda kwiMathematiki bakrotyiswe kwimisebenzi eyenzelwe ukufunda. Ixesha elininzi malisetyenziswe kwimizekelo nemisebenzi yezandla neyenziwayo kunabanye abafundi, umzekelo, ukusetyenziswa kwemisebenzi enzima msinyane kungadodobalisa ukuqhubeka kwaba bafundi. Aba bafundi mabanikwe ithuba elongezelelweyo:

- Lokugqibezela imisebenzi;
- Ukufumana izakhono zokucinga (belandela iindlela ezithile); kunye
- Nemisebenzi yokuHlola.

Inani lemisebenzi emayenziwe malilungiselelwe abafundi kodwa kungasileli izakhono ekufuneka zifundisiwe.

2.7.3 Imisebenzi yokubala ngentloko

Ukubala ngentloko kunendima enkulu kwikharityhulam. Iibhondi zamanani neetheyibhuli zokuphinda-phinda zithatha ngokuba abafundi bayazi okanye bamele ukukhumbula uluhlu lwesigaba ngasinye. Kwakhona, ukubala ngentloko kwenzelwa ukubala ukuya kufika kumanani amakhulu ubala ngokuqakatha nokwenza imisebenzi enjengo"kubala phantsi naphezulu kwileli yamanani", umzekelo, utitshala unokubuza le mibuzo ilandelayo "imibuzo ethungelanayo" "qala kuma-796 yongenza ngesi-7. Ewe, ngama-803 nciphisa isi-5. Ewe, ngama-798. Yandisa nge-10…wandise ngesi-2… kuma-90…unciphise ngesi-5…" njl. Le misebenzi incedisa abafundi ekwakheni imigca-manani yokubala ngentloko.

Ukubala ngentloko kubonakala kakhulu xa kubalwa naxa kuphuhliswa icandelo lamanani ngokunxulumene nesihloko samanani neepateni, kunokuphinda kuvele kwimisebenzi yolinganiselo nakwindlela yokusebenza ngolwazi oluqokelelweyo. Xa besebenzisa imisebenzi yokubala ngentloko, utitshala makangabanyanzeli abafundi ukuba benze imisebenzi abangenakho ukuyenza — izixhobo zokubhala nezokubala mazisoloko zifumaneka kubafundi abazifunayo.

2.8 IBANGA LABAQALAYO(R)

Indlela yokufunda iMathematika mayisetyenziswe ngokunxulumanisa nangokufunda ngokudlala. Utitshala makasoloko ezixhobisa, abe nomcebisi kunomququzeleli. Umcebisi usebenzisa amathuba okufunda okungacwangciswanga xa abafundi besenza imidlalo ngokukhululekileyo kwikona yokudlala ngokuzikhethela okanye kweyeebhloko zokwakha, zesanti, nemidlalo yamanzi nemisebenzi, encediswa ngutitshala kwizibalo ezijongene nengqiqo ezinjengokubala, uphuhliso lwengqiqo yamanani, nesithuba nesimo, iipateni, ixesha neminye imisebenzi eqalayo yeMathematiki. Imibala yodwa asiyongqiqo yeMathematika, kodwa ingasetyenziswa ekuphuhliseni iingqiqo zeMathematika ezinjengokuhlenga-hlengisa, ukwahlula-hlula nokuchaza.

Yonke imiba yeBanga labaQalayo, iquka ubume beklasi, ukufundisa nokufunda makukhokelele ekuphuhlisweni kokufunda komfundi ngokupheleleyo. Uphuhliso olunxulunyaniswe nokufunda kwabaqalayo, inyumerasi luquka nokuphuhliswa kwengqondo (ukusombulula iingxaki, ukucinga ngolandelelwano nokuqiqa), uphuhliso lolwimi (ulwimi lweMathematika kunye nokuphuhlisa izakhono zokushukuma kunye nemvakalelo yobume. Zonke ezi meko zingaphuhliswa ngamabali, iingoma, imidlalo yeminwe, izicengcelelzo, imidlalo yamanzi, iithoyi zokufundisa kunye nemidlalo yeebhodi, ngokwakha nemisebenzi yokuzungeza, imidlalo yemibono, imidlalo yangaphandle neyaseyadini yokudlala. Imidlalo emininzi mayiquke izakhono zenyumeresi, umzekelo, ukulinganisa izixhobo zokupheka okanye ukubala xa uyokuthenga.

Ngamanye amazwi, ukufumana izakhono zeMathematika yabaqalayo nezinye izakhono ezinxulumene neMathematika ezinjengezootitshala abaphum' izandla, kulandela le migaqo yamanqanaba okufunda ilandelayo:

- Kwinqanaba lezinto ezibanjwayo (esebenzisa umzimba nemizwa);
- Kwinqanaba lezinto eziphathekayo (3-D, usebenzisa izinto ezinje ngeebhloko, iziciko zeebhotile, amasebe, neezinye izinto ezisekuhlaleni); kunye
- Besebenzisa/ bebonisa iphepha nepensile (ezemizobo, amakhadi okuthelekisa njl.)

KwiBanga labaQalayo ithayimtheyibhile ibizwa ngokuba yinkqubo yemihla ngemihla, iquka la macandelo alandelayo:

- Imisebenzi ekhokelwa ngutitshala;
- Izinto ezenziwa rhoqo; kunye
- Imisebenzi ekhokelwa ngabafundi okanye imidlalo ekhululekileyo.

Ugxininiso malube sekusetyenzisweni kwezi zakhono kwisicwangciso semihla ngemihla ukukhuthaza ulwazi lwenyumeresi yabaqalalyo ngokuyonwabela nangokufunda. Umzekelo, ekufundeni okukhokelwa ngutitshala inyumeresi ifunyanwa ngexesha lesangqa. Uninzi lwezangqa lunokunikwa ukuphuhlisa iMathematika kwisangqa sakusasa xa abafundi bebuliswa kujongwa abakhoyo nabangekhoyo; lithuba lokufundisa amanani nokubala. Kwezinye izangqa, ezinjengezangqa zeMathematika, izangqa zamalungu asetyenziswa ukubona , ukushukuma, umculo nezangqa zobugqi zinokuncedisa ukufundisa iMathematika.

Imisebenzi yobugcisa bokuyila inokubethelela kwiMathematika, umzekelo, kusetyenziswe iimilo zejiyometri njengezangqa nezikwere ukwenza ikholaji okanye ukuyila iipateni zokwenza ifreyimi yemifanekiso. Itshati yemozulu,

ikhalenda neengoma zeentsuku zokuzalwa zinika ixesha lokufundisa izakhono zeMathematika. Lulwazi lukatitshala olunokuphuhlisa imfundo yabafundi.

- *Indlela zokwenza izinto*, apho abafundi bathatha inxaxheba, njengexesha lokutya, ukufika, ixesha lokugoduka, ixesha lokuya ezimfanelweni (ngasese), zonke ezo zinto zinokusetyenziswa ukufundisa iMathematika. Abafundi abanxibe bomvu, umzekelo, yiya ezimfanelweni (ngasese) (imibala kunye namanani aqhelekileyo), umfundi ngamnye ufumana ipleyiti kunye nesonka (ungqamaniso lwamanani), uThandi ufuna isonka sesibini, uMandla yena wanele. Le nto ikhokelela kumathuba okufundisa, ngamanye amazwi, ukuba ngumcebisi wokufundisa.
- Ngexesha lokudlala utitshala angakhuthaza ukufundiswa kweMathematika yabaqalayo kwiindawo ezilungiselelwe ukudlala. Imidlalo yangaphandle enjengokugwencela (ukukhwela) emaplangeni okanye ukuqhuba ibhayisekile kunokukhuthaza isigama esinjengokunyuka/ ukwehla, ezantsi/ phezulu, ukukhawuleza/ ukucotha, phezulu/ ezantsi, njl. Imidlalo yesanti namanzi iza kuqinisa ulwazi lwezakhono ezinjengobunzima, nomthamo. Yonke le misebenzi ikhuthaza izakhono zamalungu omzimba, ikhuthaza ukufundisa esikolweni ilitheresi nenyumeresi. Nantsi imizekelo yezi zakhono:
  - Ukuphuhlisa ulwazi lwendawo yesithuba, umzekelo emva, phambili, ngaphantsi, emva kwento (umzekelo, le nto ingayanyaniswa nendawo yenani kwiMathemathika); kunye
  - Nezalathiso kunye namacala (zinganxulumaniswa namanani nokubhala iileta nasekufundeni ukunene nasekhohlo).

Le nto sithetha ngayo apha ngentla ibonisa indlela iBanga labaQalayo eliphuhlisa ukusombulula iingxaki, ukucinga ngengqiqo nemfundo yokuba ngabemi ngenxa yokubethelela ukuba ngabafundi abasebenzisanayo nabaxoxisanayo. Ngokusebenzisa amathuba afundisekayo, utitshala makakhuthaze abafundi ukuba bajonge izigqibo abazithathayo baqikelele okunokwenzeka, umzekelo, ukuba isikhongozeli esisetyenziswe ngexesha ebesesisetyenziswe kumdlalo wamanzi singathatha amanzi angaphezu kwesinye isikhongozeli.

Ngokunika ingcebiso aze acele umngeni kubantwana ukuba bacinge ngezinye iindlela zokusombulula iingxaki, aphinde abakhuthaze ukuba bacinge nzulu ngezizathu nangezigqibo abathi bazithathe. Ngale ndlela yokucinga awuncedi iMathematika kuphela, koko uphuhlisa ulwazi ngokupheleleyo yaye izizathu zikaCAPS ziyaphuhliseka kakhulu.

Iindlela zokuhlaziya kwiBanga labaQalayo mazibe zezinganyanzelisi ukubhala uvavanyo yaye abantwana maBangafakwa kuxinzelelo lokubhala uvavanyo. Ngenxa yesi sizathu, imisebenzi yokuHlola ayifakwanga kulo mqulu kaCAPS. Umsebenzi ngamnye wovavanyo mawulungiswe ngobunono ukwenzela ukuba unxulumanise izakhono ezininzi.

KwiBanga labaQalayo uvavanyo lwenziwa ngokujonga, utitshala erekhodisha esebenzisa itshekhilisti. Loo nto inika indlela aqhuba ngayo umfundi ngamnye wonyaka wonke, ubunzima abufumeneyo neendawo ebegqwese kuzo. Olu hlobo lunceda ukukhawulelana neengxaki nendawo agqwesa kuzo ukuba ziqhubele phambili.

Indlela yakudala, yokufundisa abafundi bevaleleke kwigumbi lokufundela engenakudlala mayingasetyenziswa, nanjengoko ingakukhuthazi ukufunda inyumeresi ngokugqibeleleyo komfundi okwisiGaba sabaQalayo. IBanga labaQalayo malingenziwa iBanga loku-1. Eli Banga linezalo iimpawu ezibonisa indlela abantwana abakule minyaka abazifumanela ngayo ubomi jikelele, ulwazi, izakhono, nendlela yokuziphatha eza kubanika amathuba kwiminyaka ezayo yokufunda okuseSikweni.

INKQUBO YEMIHLA-NGEMIHLA: IBANGA LABAQALAYO (R)

(Ukusaka ± 7:30 – 13:00)

UKUFIKA NEMIDLALO

Ama- 36 emiz

Ukubulisa Iimini Zokuzalwa Irejista Iindaba

IIMISEBENZI IILWIMI EKHOKELWAYO IZIBALO NGUTITSHALA IZAKHONO ZOBOMI

IiLwimi
IziBalo
Izakhono zoBomi

Ama- 50 emiz

- IMISEBENZI YOBUGCISA (yonke imihla: undoqo -1 +2/3 imisebenzana exhasayo)
- UKUDLALA IMIDLALO YOKUZIKHETHELA EKLASINI

- Imidlalo yelizwe lokuzakhela
- Imidlalo yokulinganisa
- Ukwakha
- Ukudlala ngeebhloko
- Iithoyi zokufunda
- Imidlalo yokusebenzisa ukucinga
- Iiphazili
- Ikona yeencwadi
- Ixesha lokuthula

Ama- 30 emiz

IMISEBENZI IILWIMI EKHOKELWA IZIBALO NGUTITSHALA IZAKHONO ZOOMI

I-10 Iemiz

IXESHA LOKUYA KUZIKHULULA (NGASESE) uLwimi, IziBalo, IzaKhono zoBomi

Ama- 20 emiz

IXESHA LOKUTYA
uLwimi, IziBalo, izaKhono zoBomi

Ama- 60 emiz

Ukudlala Imidlalo Yokuzikhethela Eklasini Ze Kucocwe.

- Umdlalo Ngamanzi
- Umdlalo Ngesanti
- Umdlalo Ngokulinganisa
- Iibhola
- Oojingi
- Iithoyi Zamavili
- Iithoyi Zokufunda
- Ijangili jim
- Amatayara
- Imithambo
- Imidlalo

I-10 Iemiz

IXESHA LOKUYA KUZIKHULULA uLwimi, IziBalo, izaKhono zoBomi

Ama- 30 emiz

IMISEBENZI IILWIMI EKHOKELWAYO IZIBALO NGUTITSHALA IZAKHONO ZOBOM

Ama- 30 emiz

IBALI Yonke imihla

Ixesha lokuphumla/ lokuthula ze kugodukwe

IZIBALO

- Imisebenzi Esekelwe Kwikharithyulam (Caps) (Izibalo)
- Iingoma Nomculo
- Imisebenzi Efuna Ucinge
- Izicengcelezo Zokubala
- Iingxoxo Ngezihloko
- Umfuniselo Wezenzululwazi
- Imidlalo Yokuzikhethela
- Okwenziwa Imihla Ngemihla

ULWIMI

- Imisebenzi esekelwe kwi-kharityhulam (caps)
- (Ulwimi lwasekhaya)
- Amabali
- Ukudlala eqongeni
- Iincwadi/imifanekiso
- Ukufunda imifanekiso
- Iingxoxo
- Imisebenzi efuna ucinge
- Ipowusta yomzali
- Ileta yomzali
- Iindaba
- Imibongo nezicengcelezo
- Umculo/iingoma
- Izikali/ iiteyiphu
- Iingxoxo ngezihloko
- Imisebenzi yoluntu
- Ezenziwa imihla ngemihla
- Imidlalo yokuzikhethela

IZAKHONO ZOBOMI

- Imisebenzi ethathelwe kwipolisi yekharityhulum nokuhlola (Izakhono zobomi)
- Iingoma nomculo
- Imibongo nezicengcelezo
- Ukuxoxwa kwemixholo
- Imihla yokuzalwa
- Imisebenzi yesiqhelo
- Ukudlala okukhululekileyo

2.9 IZIXHOBO EZICETYSWAYO: IGUMBI LESIGABA ESISISISEKO

- Izinto zokubala
- idayisi elikhulu
- ifreyim enkulu yokubala
- itshati yobude
- iposta enkulu ka-1 – 100 neka-101 – 200 (itshati ye-100)
- iintlobo ezahlukeneyo zomgca-manani
- iseti yefladi-khadi(Flard cards)
- imali yokudlala — umwangalala nengamaphepha
- ikhalenda yonyaka esikuwo
- iwotshi yosiba enkulu yodonga
- isikali
- iibhloko zokwakha
- udongwe
- iintlobo zeebhokisi ngokweemilo nobungakanani obuvela emakhaya
- iintlobo zeebhotile zeplastiki nezikhongozeli zokubonisa ubungakanani
- imizekelo yesifiye/ingqukumba (sphere) (ibhola), amaxande, ityhubhu, ikhowuni, ipiramidi kunye nesilinda. Utitshala angazenzela ezakhe izixhobo.
- Iiplastiki, amakhalibhodi azizikwere, amaxande ahlukeneyo, izangqa, oonxantathu beendidi zobukhulu
- Imidlalo yeMathematika, umzekelo, iLudo, inyoka neleli, iiphazili ezijiko-jiko, idomino, iiTangram, njl.
- Ezifunekayo kwiBanga labaQalayo (R) neloku-1:
- Iindawo zesanti nokudlala ngamanzi
    - Izixhobo zokugwencela, zokuncekelela, zooswingi nezoogqaphu
    - Ivenkile yomdlalo nezinto zokuthengwa ngemali yokudlala
    - Imidlalo exutyiweyo enjengothi ‘yintoni esesikwereni’?
    - iibhloko

ISAHLUKO SESI- 3: INKCAZELO YOMXHOLO

3.1 INTSHAYELELO

KuMjikelo weMfundo noQeqesho Jikelele kukho iinkalo ezintlanu zemixholo yeMathematika:

- Amanani, ii-Opareyshini noLwalamano.
- Iipateni, iiFankshini/ifankshini i ne-aljibra.
- Isithuba nemilo (Ijiyometri).
- Umlinganiselo.
- Ukusebenza ngolwazi oluqokelekweyo.

Umxholo wenkalo nganye uyacazululwa ube zizihloko zeMathematika, umzekelo, kwisiThuba neMilo kwisiGaba esisisiSeko isihloko esinye sineemilo ezinokwakheka kuka (2-D). Iingqiqo nezakhono zixeliweyo kwisihloko ngasinye. ICandelo lesi-3 leNkcazelo yePolisi kaZwelonke yeKharityhulam nokuHlola linika lize licacise ngomxholo weMathematika ofunekayo.

3.2 INKCAZELO YOMXHOLO UKUBONISA INKQUBELA-PHAMBILI

Iitheyibhile zesigaba ezingamagqabantshintshi zibonisa inkcazelo yeengqiqo nezakhono nenkqubela-phambili ukusuka kwiBanga labaQalayo ukuya kwelesi-3.

Nangona kunjalo, kwizihloko ezithile, iingqiqo nezakhono ziyafana kumaBanga amabini okanye amathathu alandelelanayo. Ingcaciso ngomxholo iza kukunika izikhokelo ngendlela inkqubela-phambili efanele ukuba imiliselwe ngayo. Okufumaneka kumxholo othile makufundwe kunye nangcaciso ngomxholo lowo.

Amagqabantshintshi ngesiGaba esisisiSeko abonisa inkqubela-phambili ngeenkalo zomxholo; Ukubala ngamanani nolwalamano, iipateni, imisebenzi ne-aljibra, umlinganiselo nokusetyenziswa kolwazi/ datha kwiBanga labasaQalayo – ukuya kwelesi-3 njengoko kuxeliwe kule theyibhile ingasezantsi:

AMAGQABANTSHINTSHI ESIGABA ESISISEKO

1. AMANANI, II-OPAREYSHINI NOLWALAMAMO

Inkqubela-phambili yamanani, ukubala nolwalamano.

- Inkqubela-phambili engundoqo kumanani, ukubala nolwalamano yenzeka ngeendlela ezintathu:
  - Uluhlu lwamanani luyanda.
  - Iindidi ezahlukeneyo zamanani ziyafundiswa.
  - Iindlela zokubala ziyaguquka.
- Njengokuba ummandla wamanani owenza izibalo usanda ukuya kwiBanga lesi-3, abafundi kufanele babe neendlela ezichanekileyo zokubala.
- Imeko-bume mayithathelwe ingqalelo uluhlu lwamanani lweBanga kunye nokukwazi ukubala kwabafundi.

ISIHLOKO	IBANGA LABAQALAYO	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
UKUPHUHLISA INGQIQO YAMANANI: Bala ngamanani apheleleyo.				
1.1 **Bala izinto.**	**Bala izinto eziphathekayo.** Qikelela uze ubale uye kufika kwi-10 lezinto ezisetyenziswa imihla ngemihla ngokuzithemba.	**Bala izinto eziphathekayo.** Qikelela uze ubale uye kufika kuma-50 ezinto ezisetyenziswayo imihla ngemihla ngokuzithemba. Kukhuthazwa ukubala ngokuqukanisa.	**Bala izinto eziphathekayo.** Qikelela uze ubale uye kufika kuma-200 ezinto ezisetyenziswayo imihla ngemihla ngokuzithemba. Kukhuthazwa ukubala ngokuqukanisa.	**Bala izinto eziphathekayo.** Qikelela uze ubale uye kufika kwi-1 000 lezinto ezisetyenziswayo imihla ngemihla ngokuzithemba. Kukhuthazwa ukubala ngokuqukanisa.
1.2 **Bala usiya phambili, ubale ubuya umva.**	Bala uye phambili nasemva ngezinye ukususka kwisi-1 ukuya kwi-10; Sebenzisa izingqisho neengoma zamanani.	Bala uye emva naphambili ngezinye ukusukela kulo naliphi inani phakathi kwe-0 ukuya kwi-100. • Bala uye phambili: • Ngama-10 ukusukela kwisininzi sama-10 phakathi ko-0 ne-100. • Ngezi-5 ukusukela kwisininzi sezi-5 phakathi kwe-0 ne-100. • Ngezi-2 ukusukela kwisininzi sezi-2 phakathi kwe-0 ne-100.	Bala uye phambili nasemva: • Ngoo-1 ukusukela kulo naliphi inani eliphakathi kwe-0 nama-200. • Ngama-10 ukusukela kwisininzi sama-10 phakathi kwe-0 nama-200. • Ngezi-5 ukusukela kwisininzi sezi-5 phakathi kwe-0 nama-200. • Ngezi-2 ukusukela kwisininzi sezi-5 phakathi kwe-0 nama-200. • Ngezi-3 ukusukela kwisininzi sezi-3 phakathi ko-0 nama-200. • Ngezi-4 ukusukela kwisininzi sezi-4 phakathi kwe-0 nama-200.	Bala uye phambili nasemva: • Ngoo-1 ukusukela kulo naliphi inani eliphakathi kwe-0 ne-1000. • Ngama-10 ukusukela kwisininzi sezi-10 phakathi kwe-0 ne-1000. • Ngezi-5 ukusukela kwisininzi sezi-5 phakathi kwe-0 ne-1000. • Ngezi-2 ukusukela kwisininzi sezi-2 phakathi kwe-0 ne-1000. • Ngezi-3 ukusukela kwisininzi sezi-3 phakathi kwe-0 ne-1000. • Ngezi-4 ukusukela kwisininzi sezi-4 phakathi kwe-0 ne-1000. • Ngama-20, ngama-25, ngama-50 ne-100 ukuya kwi-1000.

ISIHLOKO	IBANGA LABAQALAYO	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
UKUPHUHLISA INGQIQO YAMANANI: Ukumela amanani azeleyo.				
1.3 **Iisimboli zamanani namagama amanani**	**Qaphela, gqala uze ufunde amanani.** • Qaphela, gqala uze ufunde iisimboli zamanani ukusuka ku-1 ukuya kwi-10. • Qaphela, gqala uze ufunde amagama amanani ukusuka ku-1 ukuya kwi-10.	**Qaphela, gqala uze ufunde amanani.** • Qaphela, gqala uze ufunde iisimboli zamanani ukusuka ku-1 ukuya kwi-100. • Bhala iisimboli zamanani ukusuka ku-1 ukuya kuma-20. • Qaphela, gqala uze ufunde amagama amanani ukusuka ku-1 ukuya kwi-10. • Bhala amagama amanani ukusuka ku-1 ukuya kwi-10.	**Qaphela, gqala uze ufunde amanani.** • Qaphela, gqala uze ufunde iisimboli zamanani ukusuka kwi-0 ukuya kuma-200. • Bhala iisimboli zamanani ukusuka kwi-0 ukuya kwi-100. • Qaphela, gqala uze ufunde amagama amanani ukusuka kwi-0 ukuya kwi-100. • Bhala amagama amanani ukusuka kwi-0 ukuya ku-100.	**Qaphela, gqala uze ufunde amanani.** • Qaphela, gqala uze ufunde iisimboli zamanani ukusuka kwi-0 ukuya kwi-1 000. • Bhala iisimboli zamanani ukusuka kwi-0 ukuya kwi-1 000. • Qaphela, gqala uze ufunde amagama amanani ukusuka kwi-0 ukuya kwi-1 000. • Bhala amagama amanani ukusuka kwi-0 ukuya kwi-1 000.
UKUPHUHLISA INGQIQO YAMANANI: Chaza, thelekisa uze ucwangcise amanani azeleyo.				
1.4 **Chaza, thelekisa uze ucwangcise amanani azeleyo.**	**Chaza, thelekisa uze ucwangcise ingqokelela yezinto ukuya kwi-10.** • Chaza amanani azeleyo ukuya ku-10. • Thelekisa ukuba kwezi ngqokelela zimbini zinikiweyo zezinto ziziphi ezinkulu, ezincinane, ezincinane kunenye, ezinkulu kunezinye, ezingaphezu kwenye, ezingaphantsi kwezinye, ezilingana nenye, ezininzi, ezimbalwa ukuya kutsho ku-10. • Cwangcisa ngaphezu kweengqokelela ezimbini ezinikiweyo zezinto ukusukela kweyona incinane ukuya kweyona inkulu ukuya kutsho kwi-10.	**Chaza, thelekisa uze ucwangcise ingqokelela yezinto ukuya kuma-20.** • Chaza uze uthelekise ingqokelela yezinto ngokobuninzi, ngokobuncinane nangokufanayo. • Chaza uze ucwangcise ingqokelela yezinto ukusukela kweyona ininzi ukuya kweyona incinane nokusuka kweyona incinane ukuya kweyona inkulu.		

ISIHLOKO	IBANGA LABAQALAYO	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
1.4 **Chaza, thelekisa uze ucwangcise amanani azeleyo.**	**Sebenzisa amanani aqhelekileyo ukubonisa ucwangciso, indawo okanye ubume.** Phuhlisa ulwazi ngamanani aqhelekileyo, umzekelo, okokuqala, okwesibini, okwesithathu ukuya kweyesithandathu neyokugqibela.	**Chaza, thelekisa uze ucwangcise amanani ukuya kutsho kuma-20.** • Chaza uze uthelekise amanani azeleyo ngokobuncinane kunelinye, ubukhulu kunelinye nokuba ngaphezulu kwelinye, ngokuba ngaphantsi kwelinye, nokulingana nelinye. • Chaza uze ucwangcise amanani ukusukela kwelona lincinane ukuya kwelona likhulu nokusukela kwelona likhulu ukuya kwelona lincinane. **Sebenzisa amanani aqhelekileyo ukubonisa ucwangciso, indawo okanye ubume.** Beka izinto emgceni ukusukela kweyokuqala ukuya kweyeshumi okanye eyokuqala ukuya kweyokugqibela, umzekelo, eyokuqala, eyesibini, eyesithathu..... kweyeshumi.	**Chaza, thelekisa uze ucwangcise amanani ukuya kutsho kuma-99.** • Chaza uze uthelekise amanani azeleyo ukuya kuma-99 ngokobuncinane kunelinye, ubukhulu kunelinye nokuba ngaphezulu kwelinye, ngokuba ngaphantsi kwelinye, nokulingana nenye. • Chaza uze uthelekise amanani azeleyo ukuya kuma-99 ukusukela kwelona lincinane ukuya kwelona likhulu nokusukela kwelona likhulu ukuya kwelona lincinane. **Sebenzisa amanani aqhelekileyo ukubonisa ucwangciso, indawo okanye ubume.** Beka izinto emgceni ukusukela kweyokuqala ukuya kweyeshumi okanye eyokuqala ukuya kweyokugqibela, umzekelo, eyokuqala, eyesibini, eyesithathu..... kweyamashumi amabini.	**Chaza, thelekisa uze ucwangcise amanani ukuya kutsho kuma-999.** • Chaza uze uthelekise amanani azeleyo ukuya kuma-999 ngokobuncinane kunelinye, ubukhulu kunelinye nokuba ngaphezulu kwelinye, ngokuba ngaphantsi kwelinye, nokulingana nelinye. • Chaza uze uthelekise amanani azeleyo ukuya kuma-99 ukusukela kwelona lincinane ukuya kwelona likhulu nokusukela kweyona likhulu ukuya kwelona lincinane. **Sebenzisa amanani aqhelekileyo ukubonisa ucwangciso, indawo okanye ubume.** Sebenzisa, funda uze ubhale amanani aqhelekileyo, kuquka ukushunqulela (okokuqala, okwesibini, okwesithathu ukuya kweyama-31).
UKUPHUHLISA INGQIQO YAMANANI: Ixabiso lendawo elimi kuyo inani				
1.5 **Ixabiso lendawo elimi kuyo inani.**		**Qalisa ukuqonda ixabiso lendawo elimi kuyo inani ubuncinane amanani amivo mi-2 ukuya kuma-20.** • Cazulula amanani amivo mi-2 abe zizininzi ze-10 kunye nemivo (neeyunithi).	**Qalisa ukuqonda ixabiso lendawo elimi kuyo inani ubuncinane amanani amivo mi-2 ukuya kwi-99.** • Cazulula amanani amivo mi-2 ukuya kwi-99 abe zizininzi ze-10 kunye nemivo. • Chonga uze uxele ixabiso lendawo lomvo ngamnye.	**Qaphela ixabiso lendawo ame kuyo amanani amivo mi-3 ukuya ku-999.** • Cazulula amanani amivo mi-3 ukuya kwi-999 abe zizininzi ze-100, zibe zizininzi ze-10 kunye nemivo. • Chonga uze uxele ixabiso lendawo lomvo ngamnye.
SOMBULULA IINGXAKI ZOKUBALA KWIMEKO ETHILE				
1.6 **Iindlela ngeendlela kusombulula iingxaki zezibalo**	Sebenzisa iindlela ngeendlela ezilandelayo ukuya kutsho kwi-10: • Izixhobo eziphathekayo, umzekelo, iikhawunta / izixhobo zokubala.	Sebenzisa iindlela ngeendlela ezilandelayo xa usombulula iingxaki zezibalo nokuchaza izisombululo kwiingxaki zezibalo:	Sebenzisa iindlela ngeendlela ezilandelayo xa usombulula iingxaki zezibalo nokuchaza izisombululo kwiingxaki zezibalo:	Sebenzisa iindlela ngeendlela ezilandelayo xa usombulula iingxaki zezibalo nokuchaza izisombululo kwiingxaki zezibalo:

ISIHLOKO	IBANGA LABAQALAYO	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
1.6 **Iindlela ngeendlela zokusombulula iingxaki zezibalo**	• Ileli yamanani aphathekayo.	• Izixhobo eziphathekayo, umzekelo, iikhawunta / izixhobo zokubala. • Imifanekiso yokuzoba ibali ngezibalo. • Ukwakha nokucazulula amanani. • Ukuphindaphinda nokwahlulahlula amanani. • Imigca-manani.	• Imizobo okanye izixhobo eziphathekayo, umzekelo, iikhawunta / izixhobo zokubala. • Ukwakha nokucazulula amanani. • Ukuphindaphinda nokwahlulahlula amanani. • Imigca-manani.	• Ukwakha nokucazulula amanani. • Ukuphindaphinda nokwahlulahlula • amanani. • Imigca-manani. • Ukuwelisela inani kumashumi.
1.7 **Ukudibanisa okuthabatha.**	Sombulula iingxaki zokubala izibalo (amabali ngezibalo) ngokusemxholweni ucacisa isisombululo sakho kwiingxaki zezibalo kuquka ukudibanisa nokuthabatha ngeempendulo ukuya kutsho kwi-10.	Sombulula iingxaki zokubala izibalo (amabali ngezibalo) ngokusemxholweni ucacisa isisombululo sakho kwiingxaki zezibalo kuquka ukudibanisa nokuthabatha ngeempendulo ukuya kutsho kuma-20.	Sombulula iingxaki zokubala izibalo (amabali ngezibalo) ngokusemxholweni ucacisa isisombululo sakho kwiingxaki zezibalo kuquka ukudibanisa nokuthabatha ngeempendulo ukuya kutsho kuma-99.	Sombulula iingxaki zokubala izibalo (amabali ngezibalo) ngokusemxholweni ucacisa isisombululo sakho kwiingxaki zezibalo kuquka ukudibanisa nokuthabatha ngeempendulo ukuya kutsho kuma-999.
1.8 **Ukudibanisa okuphindiweyo okukhokelela kuphindaphindo lwamanani.**		Sombulula iingxaki zokubala izibalo (amabali ngezibalo) ngokusemxholweni ucacisa isisombululo sakho kwiingxaki zezibalo kuquka ukudibanisa nokuthabatha ngeempendulo ukuya kutsho kuma-20.	Sombulula iingxaki zokubala izibalo (amabali ngezibalo) ngokusemxholweni ucacisa isisombululo sakho kwiingxaki zezibalo usebenzisa ukudibanisa ngokuphindaphindeneyo nophindaphindo oluneempendulo ukuya kuma-50.	Sombulula iingxaki zokubala izibalo (amabali ngezibalo) ngokusemxholweni ucacisa isisombululo sakho kwiingxaki zezibalo kuquka ukudibanisa nokuthabatha ngeempendulo ukuya kutsho kwi-100.
1.9 **Ukwahlula ngokwamaqela nokwaba ngokulinga okukhokelela kulwahlulwa-hlulo.**	Sombulula uze ucacise izisombululo kwizibalo zamagama ngokusemxholweni (izibalo zamazwi) eziquka ukwaba ngokulinganayo, ukwahlula ngokwamaqela ngamanani azeleyo ukuya kutsho kwi-10 kunye neempendulo ezinokuquka iintsalela.	Sombulula uze ucacise izisombululo kwiingxaki zezibalo abazenza ngokwabo abafundi kuquka ukwaba ngokulinganayo nokwahlula ngokwamaqela amanani azeleyo ukuya kutsho kuma-20 kunye neempendulo eziquka iintsalela.	Sombulula uze ucacise izisombululo kwiingxaki zezibalo abazenza ngokwabo abafundi kuquka ukwaba ngokulinganayo nokwahlula ngokwamaqela amanani azeleyo ukuya kutsho kuma-50 kunye neempendulo eziquka iintsalela.	Sombulula uze ucacise izisombululo kwiingxaki zezibalo abazenza ngokwabo abafundi kuquka ukwaba ngokulinganayo nokwahlula ngokwamaqela ukuya kutsho kwi-100 kunye neempendulo ezinokuquka iintsalela.
1.10 **Ukwaba ngokulinganayo okukhokelela kumaqhezu.**			Sombulula uze ucacise izisombululo kwiingxaki eziprekthikhali zezibalo eziquka ukwaba ngokulinganayo kukhokelele kwizisombululo eziquka amaqhezu amanyeneyo.	Sombulula uze ucacise izisombululo kwiingxaki eziprekthikhali zezibalo eziquka ukwaba ngokulinganayo kukhokelele kwizisombululo eziquka amaqhezu angamanyananga namanyeneyo.

ISIHLOKO	IBANGA LABAQALAYO	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
1.11 **Imali**	Phuhlisa ulwazi ngemali eziinkozo/ engumwangalala nengamaphepha yebhanki yaseMzantsi Afrika.	• Qaphela uze ufundise ngemali eziinkozo yaseMzantsi Afrika (i-5c, i-10c, i-20c, i-50c, i-R1, i-R2, i-R5) kunye nemali engamaphepha eyi-R10 nama-R20. • Sombulula iingxaki zemali eziquka iitotali netshintshi ye-R20 kunye neesenti ukuya kuma-20c.	• Qaphela uze ufundise ngemali eziinkozo yaseMzantsi Afrika (i-5c, i-10c, i-20c, i-50c, i-R1, i-R2, i-R5) kunye nemali engamaphepha eyi-R10, i-R20 nama-R50. • Sombulula iingxaki zezemali eziquka iitotali netshintshi ye-R99 kunye neesenti ukuya kuma-90c.	• Qaphela uze ufundise ngemali eziinkozo yaseMzantsi Afrika kunye nemali engamaphepha. • Sombulula iingxaki ezingemali eziquka iitotali netshintshi ngokweerandi okanye iisenti. • Guqula phakathi kweerandi neesenti.
IZIBALO EZINGALAWULWA-MEKO				
1.12 **Ubuchule bokubala** **(lindela)**		Sebenzisa iindlela ngeendlela ezilandelayo zokubala xa usenza izibalo: • Imizobo okanye izixhobo eziphathekayo, umzekelo, iikhawunta / izixhobo zokubala. • Ukwakha nokucazulula amanani. • Ukuphindaphinda nokwahlulahlula amanani. • Imigca-manani.	Sebenzisa iindlela ngeendlela ezilandelayo zokubala xa usenza izibalo: • Imizobo okanye izixhobo eziphathekayo, umzekelo, iikhawunta / izixhobo zokubala. • Ukwakha nokucazulula amanani. • Ukuphindaphinda nokwahlulahlula amanani. • Imigca-manani.	Sebenzisa iindlela ngeendlela ezilandelayo zokubala xa usenza izibalo: • Ukwakha nokucazulula amanani. • Ukuphindaphinda nokwahlulahlula amanani. • Imigca-manani. • Ukuwelisa inani kumashumi.
1.13 **Ukudibanisa nokuthabatha.**	Sombulula iingxaki zokudibanisa nokuthabatha ngomlomo nezisombululo ukuya kutsho kwi-10.	• Dibanisa ukuya kuma-20. • Thabatha ukusuka kuma-20. • Sebenzisa iisimboli ezifanelekileyo (+, –, =, □) • Qhelanisa iibhondi zamanani ukuya kwi-10.	• Dibanisa ukuya kuma-99. • Thabatha ukusuka kuma-99. • Sebenzisa iisimboli ezifanelekileyo (+, –, =, □). • Qhelanisa iibhondi zamanani ukuya kuma-20.	• Dibanisa ukuya kuma-999. • Thabatha ukusuka kuma-999. • Sebenzisa iisimboli ezifanelekileyo (+, –, =, □). • Qhelanisa iibhondi zamanani ukuya kuma-30.
1.14 **Ukudibanisa ngokuphinda phindiweyo okukhokelela kuphindaphindo lwamanani.**		• Dibanisa inani elinye ngokuphinda phindiweyo ukuya kutsho kuma-20. • Sebenzisa iisimboli ezifanelekileyo (+, =, □).	• Phindaphinda amanani ngo-1 ukuya kwi-10 ngo-2, 5, 3 kunye no-4 kwitotali engama-50. • Sebenzisa iisimboli ezifanelekileyo (+, –, =, □).	• Phindaphinda ngalo naliphi inani ngo-2, 3, 4, 5, 10 ukuya kwitotali eli-100. • Sebenzisa iisimboli ezifanelekileyo (x, □).

ISIHLOKO	IBANGA LABAQALAYO	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
1.15 **Ukwahlulahlula.**				• Hlulahlula amanani ukuya kuma-99 ngo-2, 3, 4, 5, 10. • Sebenzisa iisimboli ezifanelekileyo (÷, =, □).
1.16 **Izibalo zentloko.**		**Ingqiqo ngamanani: Uluhlu lwama-20.** • Xela inani phambi nasemva kwenani elinikiweyo. • Cwangcisa iseti enikiweyo yamanani akhethiweyo. • Thelekisa amanani ukuya kutsho kuma-20 uze uxele ukuba u-1 kunye no-2 ungaphantsi okanye ungaphezulu.	**Ingqiqo ngamanani: Uluhlu lwama-99.** • Cwangcisa iseti enikiweyo yamanani akhethiweyo. • Thelekisa amanani ukuya kutsho kuma-99 uze uxele ukuba u-1, 2, 3, 4, 5 kunye no-10 ungaphantsi okanye ungaphezulu.	**Ingqiqo ngamanani: Uluhlu lwama-999.** • Cwangcisa iseti enikiweyo yamanani akhethiweyo. • Thelekisa amanani ukuya kutsho kuma-999 uze uxele ukuba u-1, 2, 3, 4, 5 kunye ne-10 ungaphantsi okanye ungaphezulu.
		Ukukhumbula ngokukhawuleza: • Izinto eziyinyaniso ngokudibanisa nokuthabatha ukuya kwi-10 •	**Ukukhumbula ngokukhawuleza:** • Izinto eziyinyaniso ngokudibanisa nokuthabatha ukuya kuma-20. • Dibanisa okanye uthabathe izininzi ze-10 ukusuka kwi-0 ukuya kwi-100. •	**Ukukhumbula ngokukhawuleza:** • Khumbuza ngezinto eziyinyaniso ngokudibanisa nokuthabatha ukuya kuma-20. • Dibanisa okanye uthabathe izininzi zika-10 ukusuka kwi-0 ukuya kwi-100. • Izinto eziyinyaniso ngophindaphindo: - 2 lithaymtheyibhile ka-2 eneempendulo ukuya kutsho kuma-20. - 10 iithayimtheyibhile ze-10 eneempendulo ukuya kutsho kwi-100 • Izinto eziyinyaniso ngokwahlulahlula amanani: - Ukuya kutsho kuma-20 kohlulwe ngo-2 - Ukuya kutsho kwi-100 kohlulwe nge-10

ISIHLOKO	IBANGA LABAQALAYO	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
		lindlela zokubala • Sebenzisa iindlela zokubala ukudibanisa nokuthabatha ngokukuko: • Beka inani elikhudlwana kuqala ukuze ubale ukuya phambili okanye ngasemva. • Umgca-manani. • Ukuphindaphinda nokwahlulahlula amanani. • Ukwakha nokucazulula amanani.	**lindlela zokubala** • Sebenzisa iindlela zokubala ukudibanisa nokuthabatha ngokukuko: • Beka inani elikhudlwana kuqala ukuze ubale ukuya phambili okanye ngasemva. • Umgca-manani. • Ukuphindaphinda nokwahlulahlula amanani. • Ukwakha nokucazulula amanani. • Sebenzisa ulwalamano phakathi kokudibanisa nokuthabatha.	**lindlela zokubala** • Sebenzisa iindlela zokubala ezilandelayo: • Beka inani elikhudlwana kuqala ukuze ubale ukuya phambili okanye ubuya umva. • Umgca-manani. • Ukuphindaphinda nokwahlulahlula amanani. • Ukwakha nokucazulula amanani. • Sebenzisa ulwalamano phakathi kokudibanisa nokuthabatha. • Sebenzisa ulwalamano phakathi kokuphindaphinda nokwahlulahlula.
1.17 **Amaqhezu.**			• Sebenzisa uze uxele amaqhezu e-unitary (unitary fractions) ngokwemixholo eqhelekileyo kuquka iziqingatha, iikota, izithathu nezine. • Qaphela amaqhezu ngokodidi lomzobi. • Bhala amaqhezu njengesiqingatha esi-1.	• Sebenzisa uze uxele amaqhezu e-unitary (unitary fractions) ngokwemixholo eqhelekileyo kuquka iziqingatha, iikota, izibhozo, izithandathu, izihlanu, izithathu nezine. • Qaphela amaqhezu ngokodidi lomzobo. • Qala ukuqaphela ukuba iziqingatha ezibini okanye ezithathu zezithathu zenza enye epheleleyo kunye nesiqingatha esinye kunye neekota ezimbini ziyalingana. • Bhala amaqhezu njengesiqingatha esi-1, nezithathu ezi-2.

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2. IIPATENI, ISIPHUMO SENTSEBENZISWAMO YAMANANI / IFANKSHINI NE-ALJIBRA

Inkqubela-phambili kwiipateni, iifankshini/ ifankshini ne-aljibra.

- Kwiipateni, kwiifankshini ne-aljibra, sinika abafundi amathuba:
  - Okugqibezela nokwandisa iipateni ezimelwe ziimo ezahlukeneyo.
  - ukukhetha nokuchaza iipateni.
- Ukuchaza iipateni sisiseko sabafundi kwisiGaba esiPhakathi ukuchaza imithetho ngeepateni. Oku kwenziwa ngokuseSikweni kumsebenzi we-aljibra kwisiGaba esiPhezulu.

ISIHLOKO	IBANGA LABAQALAYO	IBANGA LOKU-1	IBANGA LESI-2	IBANGA LESI-3
2.1 **Iipateni zejiyometri**	**Ukukhuphela nokwandisa** • Ukukhuphela nokwandisa iipateni ezilula usebenzisa izinto nemizobo (umzekelo, ukusebenzisa imibala neemilo).	**Ukukhuphela, ukwandisa nokuchaza.** • Ukukhuphela, ukwandisa nokuchaza amagama. • Iipateni ezilula ezenziwe ngezinto eziphathekayo. • Iipateni ezilula ezenziwa ngemizobo yemigca, iimilo okanye izinto. **Ukuyila iipateni zakho.** • Ukuyila iipateni zakho zejiyometri. • Ngezinto eziphathekayo. • Ngokuzoba imigca, iimilo okanye izinto. **Iipateni ezisirhangqileyo** Ukukhetha, ukuchaza ngamagama nokukhuphela iipateni zejiyometri • Kwindalo, • Kubomi bemihla ngemihla, • Kwimveli yethu yenkcubeko.	**Ukukhuphela, ukwandisa nokuchaza.** • Ukukhuphela, ukwandisa nokuchaza amagama. • Iipateni ezinzima ezenziwe ngezinto eziphathekayo. • Iipateni ezinzima ezenziwa ngemizobo yemigca, iimilo okanye izinto. **Ukuyila nokuchaza iipateni zakho.** • Ngezinto eziphathekayo. • Ngokuzoba imigca, iimilo okanye izinto. **Iipateni ezisirhangqileyo** Ukukhetha, ukuchaza ngamagama nokukhuphela iipateni zejiyometri • Kwindalo, • Kubomi bemihla ngemihla, • Kwimveli yethu yenkcubeko.	**Ukukhuphela, ukwandisa nokuchaza.** • Ukukhuphela, ukwandisa nokuchaza amagama. • Iipateni ezinzima ezenziwe ngezinto eziphathekayo. • Iipateni ezinzima ezenziwa ngemizobo yemigca, iimilo okanye izinto. **Ukuyila nokuchaza iipateni zakho.** • Ngezinto eziphathekayo. • Ngokuzoba imigca, iimilo okanye izinto. **Iipateni ezisirhangqileyo** Ukukhetha, ukuchaza ngamagama nokukhuphela iipateni zejiyometri. • Kwindalo, • Kubomi bemihla ngemihla, • Kwimveli yethu yenkcubeko.
2.2 **Iipateni zamanani**		**Ukukopa, ukwandisa nokuchaza.** Ukukopa, ukwandisa nokuchaza ulandelelwano lwamanani olulula ukuya kutsho kwi-100. **Ukuyila nokuchaza iipateni zakho.**	**Ukukopa, ukwandisa nokuchaza.** Ukukopa, ukwandisa nokuchaza ulandelelwano lwamanani olulula ukuya kutsho kuma-200. **Ukuyila nokuchaza iipateni zakho.**	**Ukukopa, ukwandisa nokuchaza.** Ukuopa, ukwandisa nokuchaza ulandelelwano lwamanani olulula ukuya kutsho kuma-999. **Ukuyila nokuchaza iipateni zakho.**

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3. ISITHUBA NEMILO (IJIYOMETRI)

Ukuqhubeka kwindawo nemo

Undoqo wokuqhubeka kwindawo nemo kungaphunyezwa ngoku:

- bethelela kwiipropati neempawu zemo nezinto kwiBanga ngalinye; kunye
- nokusuka efundeni kolwimi lwendawo nokudityaniswa kwezimvo ezahlukeneyo kwangalaa nto ekufundeni nasekulandeni indlela kwiimephu ezingekho seSikweni.

ISIHLOKO	IBANGA R	IBANGA 1	IBANGA 2	IBANGA 3
3.1 **Indawo-bume, ukufumana indawo nembonakalo**	**Ulwimi lwendawo** Chaza indawo yento malunga nenye umz. ngaphezulu kwenye, ngaphambili, ngasemva, ekunene, ekhohlo, phantsi, phezulu, ecaleni **Indawo -bume nesalathiso** Landela izalathiso ukuhamba-hamba eklasini	**Ulwimi lwendawo** Chaza indawo yento malunga nenye umz. ngaphezulu kwenye, ngaphambili, ngasemva, ekuneene, ekhohlo, phantsi, phezulu, ecaleni **Indawo-bume nembonakalo** • Qonda ze udibanise iimbonakalo ezahlukeneyo ngezinto ezifanayo yonke imihla **Indawo nesalathiso** • Landela izalathiso ukuhamba-hamba eklasini • Landela imiyalelo ukubeka into enye ngokuhambelana nenye umz. ukubeka ipensile emva kwebhokisi	**Ulwimi lwendawo** Chaza indawo yento malunga nenye umz. ngaphezulu kwenye, ngaphambili, ngasemva, ekunene, ekhohlo, phantsi, phezulu, ecaleni **Indawo-bume nembonakalo** • Qonda ze udibanise iimbonkalo ezahlukeneyo ngezinto ezifanayo yonke imihla **Indawo nesalathiso** • Landela izalathiso ukuhamba-hamba eklasini	**Indawo-bume nembonakalo** • Qonda ze udibanise izimvo ezahlukeneyo ngezinto ezifanayo yonke imihla • Xela into yemihla ngemihla njengoko kuboniswe ubume bayo obungaqhelekanga • Funda, tolika, ze uzobe iimephu ezingekho seSikweni okanye izimvo eziphezulu zengqokelela yezinto. • Khangela izinto kwimephu **Indawo nesalathiso** • Landela izalathiso ukuhamba-hamba eklasini nasesikolweni . • Nika izalathiso zokuhamba-hamba eklasini nasesikolweni. • Landela izalathiso ukusuka kwenye indawo uye kwenye kwimephu engekho seSikweni

ISIHLOKO	IBANGA R	IBANGA 1	IBANGA 2	IBANGA 3
3.2 **Izinto ezinokwakheka kuka 3-D**	**Uludwe/ uluhlu lwezinto** Khumbula ze uxele izinto ezinokwakheka kuka 3-D eklasini • Iimilo ezibubhola, • Iimilo ezibubhokisi **impawu zezinto** Chaza, hlela uze uthelekise izinto eznokwakheka kuka 3-D malunga: • nobungakanani • umbala • izinto eziqengqelekayo • izinto ezitshibilikayo **Imisebenzi yokubethelela** • sebenzisa izinto ezinokwakheka kuka 3-D ezifana neebhloko zokwakha, ukuvuselela ngokutsha, njalo njalo ukwakha amalungu ezinto umz iithawa, iibhulorho, njalo njalo.	**Uludwe/ uluhlu lwezinto** Khumbula ze uxele izinto ezinokwakheka kuka 3-D eklasini nasemifanekisweni • Iimilo ezibubhola (into engqukuva eqinileyo • Iimilo ezibubhokisi **Iimpawu zezinto** Chaza,hlela uze uthelekise izinto ezinokwakheka kuka 3-D malunga: • nobungakanani • umbala • izinto eziqengqelekayo • izinto ezitshibilikayo **Imisebenzi yokubethelela** • Qaphela ze wakhe izinto ezinokwakheka kuka 3-D ozinikiweyo usebenzisa imathiriyeli ephathekayo efana neebhloko zokwakha, ukuvuselela neekiti zokwakha	**Uludwe/ uluhlu lwezinto** Khumbula ze uxele izinto ezinokwakheka kuka 3-D eklasini nasemifanekisweni • Iimilo ezibubhola (into engqukuva eqinileyo • Iimilo ezibubhokisi (into ebonakala ngokufanayo) • Iisilinda / imibhobho **Iimpawu zezinto** Chaza,hlela uze uthelekise izinto ezinokwakheka kuka 3-D malunga: • nobungakanani • izinto eziqengqelekayo • izinto ezitshibilikayo **Imisebenzi yokubethelela** • Qaphela ze wakhe izinto eziyi -3-D ozinikiweyo usebenzisa imathiriyeli ephathekayo efana nemisikwa ezinokwakheka kuka 2-D, iibhloko zokwakha, ukuvuselela, iikiti zokwakha nezinye izinto ezinokwakheka kuka 3-D ezinemigca neembombo -	**Uludwe/ uluhlu lwezinto** Khumbula ze uxele izinto ezinokwakheka kuka 3-D eklasini nasemifanekisweni • Imilo ezibubhola (into engqukuva eqinileyo • Iimilo ezibhokisi (into ebonakala ngokufanayo) • Iisilinda / imibhobho • iiphiramidi • iikhowuni **Iimpawu zezinto** Chaza, hlela uze uthelekise izinto ezinokwakheka kuka 3-D malunga • Iimilo ezinokwakheka kuka 2-D ezenza iimbuso zezinto ezinokwakheka kuka 3-D • Izinto ezisicaba nezigosogoso **Imisebenzi egxininiswayo** • Qaphela ze wakhe izinto ezinokwakheka kuka 3-D ozinikiweyo usebenzisa imathiriyeli ephathekayo efana nemisikwa ezinokwakheka kuka 2-D , udongwe, micinga yokuvungula, imicinga yokusela (izitro) nezinye izinto ze 3-D ezinemigca nembobo

ISIHLOKO	IBANGA R	IBANGA 1	IBANGA 2	IBANGA 3
3.3 **Imilo enokwakheka kuka** **2-D**	**Uluhlu lweemilo** Chaza, hlela ze uthelekise iimilo ezinokwakheka kuka 2-D/ imifanekiso ngokwezi zinto: • Ubungakanani • Umbala • Imilo eyimigca nembombo	**Uluhlu lweemilo** Qonda/khumbula ze uxele iimilo ezinokwakheka kuka 2-D • Izangqa • oonxantathu • izikwere **limpawu zemilo** Chaza, hlela ze uthelekise iimilo ezinokwakheka kuka 2-D malunga: • nobungakanani • umbala • amacala athe ngqo • izangqa	**Uluhlu lweemilo** Qonda/khumbula ze uxele iimilo ezinokwakheka kuka 2-D • Izangqa • oonxantathu • izikwere • iingxande **limpawu zemilo** Chaza, hlela ze uthelekise iimilo ei 2-D malunga: • nobungakanani • milo • amacala athe ngqo • izangqa	**Uluhlu lweemilo** Qonda/khumbula ze uxele iimilo ezinokwakheka kuka 2-D • Izangqa • oonxantathu • izikwere • iingxande **limpawu zemilo** Chaza, hlela ze uthelekise iimilo eyi 2-D malunga: • nemilo • amacala athe ngqo • izangqa **Ukuzoba imilo** • Izangqa • oonxantathu • izikwere • iingxande
3.4 **Ulingano-macala (isimetri)**	**Ulingano-macala (Isimetri)** • Ukukhumbula isimetri emzimbeni wakho	**Ulingano-macala (Isimetri)** • khumbula isimetri emzimbeni wakho • khumbula ze wakhe umgca wesimetri kwiimilo ezinokwakheka kuka 2-D enemigca neembombo nengenayo	**Ulingano-macala (Isimetri)** • khumbula ze wakhe umgca wesimetri kwimilo ezinokwakheka kuka 2-D enemigca neembombo nengenayo	**Ulingano-macala (Isimetri)** • khumbula ze wakhe umgca wesimetri kwiimilo ezinokwakheka kuka 2-D enemigca neembombo nengenayo • Yenza umgca wesimetri ngephepha elisongiweyo

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4. UMLINGANISELO

Ukuqhuba noMlinganiselo

- Undoqo wokuqhuba nomlinganiselo kumaBanga jikelele ungaphunyezwa ngokuqalwa kwe:
  - Milo/ iifomu ezintsha zomlinganiselo
  - Izixhobo ezitsha zomlinganiselo, ukuqala ngezixhobo ezingekho seSikweni ze udlulele kwezo ziseSikweni kubaBanga lesi- 2 nelesi-3
  - Iiyunithi ezintsha zomlinganiselo ngakumbi kumaBanga elesi -2 nelesi-3.
- Ubalo nokusombulula iingxaki ngomlinganiselo makuthabathele ingqalelo ubungakanani bomsebenzi osele wenziwe.

ISIHLOKO	IBANGA R	IBANGA 1	IBANGA 2	IBANGA 3
4.1 **Ixesha**	**Ukuqingqa ixesha** Ukuthetha malunga nokudlula kwexesha • Ukuthetha ngezinto ezenzeke emini nezo zenzeka ebusuku • Abafundi balandelelanisa iziganeko ezenzeke ngexesha lasemini • Ukulandelelanisa iziganeko ezenzeka rhoqo ebomini babo.	**Ukuqingqa ixesha** Ukuthetha malunga nokudlula kwexesha • Ukulandelelanisa iziganeko ezenzeka rhoqo ebomini babo. • Ukuthelekisa ubude bexesha usebenzisa ulwimi umz. ende, emifutshane, ekhawulezayo necothayo. • Ukulandelelanisa iziganeko usebenzisa ulwimi umz. izolo, namhlanje, ngomso.		

ISIHLOKO	IBANGA R	IBANGA 1	IBANGA 2	IBANGA 3
4.1 **Ixesha**		**Ukuxela ixesha** • Chaza ukuba into yenzeke xesha nini umz. kusasa, emva kwemini, ebusuku, kwangoko/ngethuba, kade • Xela ze ulandelelanise iintsuku zeveki neenyanga zonyaka • Bhala iintsuku zokuzalwa kwikhalenda	**Ukuxela ixesha** • Xela ze ulandelelanise iintsuku zeveki neenyanga zonyaka • Bhala iintsuku zokuzalwa, iminyhadala yenkolo, iintsuku zeholide, iziganeko zembali, iziganeko zesikolo ngokwekhalenda • Ixesha ngosuku, ngeziqendu zeeyure, umkhono weyure **Bala ubude bexeha nokuhamba kwalo** • Sebenzisa ikhalenda ukubala nokuchaza ixesha: - ngosuku, - ngeeveki • Ukusebenzisa iwotshi ukubala ubude bexesha: - Iiyure - Iziqendu zeyure	**Ukuxela ixesha** • Funda imihla yekhalenda • Bhala iintsuku zokuzalwa, iminyhadala yenkolo, iintsuku zeholide, iziganeko zembali, iziganeko zesikolo ngokwekhalenda • Xela ixesha ngokosuku - Iiyure - Iziqendu zeyure - Umkhono weyure - Imizuzu • iwotshi yosiba newotshi edanyazayo, umz. Ixesha leselula **Bala ubude bexeha nokuhamba kwalo** • Sebenzisa ikhalenda ukubala nokuchaza ixesha: - ngosuku, - ngeeveki - neenyanga • Sebenzisa iwotshi ukubala ubude bexesha: - Iiyure - Iziqendu zeyure - Umkhono weeyure.

ISIHLOKO	IBANGA R	IBANGA 1	IBANGA 2	IBANGA 3
4.2 **Ubude**	**Umlinganiselo ongekho seSikweni** • Thelekisa ze ulandelelanise ubude, umphakamo okanye ububanzi bezinto ezimbini nangaphezulu ngokuzibeka zibe calanye. Sebenzisa ulwimi ukuthetha malunga nokuthelekisa umz ende, emfutshane, nebanzi	**Umlinganiselo ongekho seSikweni** • Thelekisa ze ulandelelanise ubude, umphakamo okanye ububanzi bezinto ezimbini nangaphezulu ngokuzibeka zibe calanye. Sebenzisa ulwimi ukuthetha malunga nokuthelekisa umz ende, emfutshane, nebanzi • Qikelela, thatha umlinganiselo, thelekelela, landelelanisa ze urekhodishe ubude usebenzisa imilinganiselo engekho seSikweni umz umlinganiselo ngesandla, izantya, ubude bepensile nekhawunta. • Chaza ubude bezinto ngokubala nokuxela ubude beeyunithi ezingekho seSikweni	**Umlinganiselo ongekho seSikweni** • Qikelela, thatha umlinganiselo, thelekisa, landelelanisa, ze urekhodishe ubude usebenizisa imilinganiselo engekho seSikweni umz umlinganiselo ngesandla, izantya, ubude bepensile nekhawunta. • Chaza ubude bezinto ngokubala nokuxela ubude beeyunithi ezingekho seSikweni **Ukwazisa umlinganiselo oseSikweni** • Qikelela, thatha umlinganiselo, thelekisa, landelelanisa ze urekhode ubude usebenzisa iimitha (usenokusebenzisa izinti okanye imisonto) njengeeyunithi zobude eziseSikweni.	**Umlinganiselo ongekho seSikweni** • Qikelela, thatha umlinganiselo, thelekelela, landelelanisa ze urekhode ubude usebenzisa imilinganiselo engekho seSikweni umz umlinganiselo ngesandla, izantya, ubude bepensile nekhawunta • Chaza ubude bezinto ngokubala nokuxela ukuba zingaphi iiyunithi ezingekho seSikweni nobude bazo **Ukwazisa umlinganiselo oseSikweni** • Qikelela, thatha umlinganiselo, thelekisa, landelelanisa ze urekhodishe ubude usebenzisa iimitha (usenokusebenzisa izinti okanye imisonto) njengeeyunithi zobude eziseSikweni. • Qikelela ze ulinganisele ubude ngeesentimitha usebenzisa irula. Akukho nguqulelo zifunekayo phakathi kweemitha neesentimitha

ISIHLOKO	IBANGA R	IBANGA 1	IBANGA 2	IBANGA 3
4.3 **Umthamo**	**Umlinganiselo ongekho seSikweni** • Thelekisa ze ulandelelanise ubude bezinto ezimbini nangaphezulu ngokuziva ngesandla okanye usebenzise isikali sokulungelelanisa • **Sebenzisa ulwimi** ukuthetha malunga nothelekiso umz ilula, inzima, ilulana, inzinyana	**Umlinganiselo ongekho seSikweni** • Qikelela, thatha umlinganiselo, thelekisa, landelelanisa, ze urekhodishe ubuninzi usebenzisa isikali nemilinganiselo engekho seSikweni umz iibloksi, izitena • Chaza ubude bezinto ngokubala nokuxela ubude beeyunithi ezingekho seSikweni • **Sebenzisa ulwimi** ukuthetha malunga nothelekiso umz ilula, inzima, ilulana, inzinyana	**Umlinganiselo ongekho seSikweni** • Qikelela, thatha umlinganiselo, thelekisa, landelelanisa, ze urekhodishe ubuninzi usebenzisa isikali nemilinganiselo engekho seSikweni umz iibloksi, izitena • Chaza ubude bezinto ngokubala nokuxela ubude beeyunithi ezingekho seSikweni • **Sebenzisa ulwimi** ukuthetha malunga nothelekiso umz ilula, inzima, ilulana, inzinyana **Ukwazisa umlinganiselo oseSikweni** • Thelekisa, ulandelelanise ze urekhodishe ubuninzi bezinto ezilungiselelwe intengiso ezinobunzima obuxelwe ngekhilogrem kuphela umz u2 kg werayisi no1kg womgubo • Thatha umlinganiselo umlinganiselo wobubanzi babo ngeekhilogram usebenzisa isikali sendlu yokuhlambela	**Umlinganiselo ongekho seSikweni** • Qikelela, thatha umlinganiselo, thelekisa, landelelanisa ze urekhodishe ubuninzi usebenzisa isikali nemilinganiselo engekho seSikweni umz iibloksi, izitena. • Chaza ubude bezinto ngokubala nokuxela ubude beeyunithi ezingekho seSikweni • **Sebenzisa ulwimi** ukuthetha malunga nothelekiso umz ilula, inzima, ilulana, inzinyana • **Ukwazisa umlinganiselo oseSikweni** • Thelekisa, landelelanisa, ze urekhodishe ubuninzi bezinto ezilungiselelwe iintengiso ezinobunzima obuxewe ngeekhilogrem: • u2 kg werayisi no1kg womgubo • Iigrem umz. 500 grems yetyuwa • Thatha umlinganiselo umlinganiselo wobubanzi babo ngeekhilogram usebenzisa isikali sendlu yokuhlambela • Akukho nguqulelo phakathi kweegrem nekhilogrem
	Umlinganiselo ongekho seSikweni • Thelekisa ze ulandelelanise umlinganiselo wobubanzi (ubuninzi ngokomthamo) kwizikhongozeli ezibini ezibekwe ngokusondeleleneyo. Abafunda bajonga ngokugalela kwisikhongozeli sesithathu xa kuyimfuneko. • Thelekisa ze ulandelelanise umlinganiselo wokubanzi onokuthwalwa zizikhongozeli ezimbini xa zigcwalisiwe. (ubuninzi)	**Umlinganiselo ongekho seSikweni** • Thelekisa ze ulandelelanise umlinganiselo wokubanzi (ubuninzi ngokomthamo) kwizikhongozeli ezimbini ezibekwe ngokusondeleleneyo. Abafundi bajonga ngokugalela kwisikhongozeli sesithathu xa kuyimfuneko. • Thelekisa ze ulandelelanise umlinganiselo wokubanzi onokuthwalwa zizikhongozeli ezimbini xa zigcwalisiwe. (ubuninzi)	**Umlinganiselo ongekho seSikweni**	**Umlinganiselo ongekho seSikweni**

ISIHLOKO	IBANGA R	IBANGA 1	IBANGA 2	IBANGA 3
4.4 **Umthamo/ Ivolumu**	• Sebenzisa ulwimi ukuthetha malunga nokuthelekisa izinto umz ngaphezulu, kancinci, izele, ayinanto	• Sebenzisa ulwimi ukuthetha malunga nokuthelekisa izinto umz ngaphezulu, kancinci, izele, ayinanto • Qikelela, thatha umlinganiselo, thelekisa, landelelanisa, ze urekhodishe ubude usebenzisa imilinganiselo engekho seSikweni umz amacephe neekomityi • Chaza ubuninzi besikhongozeli ngokubala nokuxela ukuba zingaphi iiyunithi ezingekho seSikweni ukugcwalisa isikhongozeli umz ibhotile inobuninzi beekomityi ezine	• Qikelela, thatha umlinganiselo, thelekisa, landelelanisa, ze urekhodishe ubuninzi bomthamo wezikhongozeli (ubuninzi bomthamo wesikhongozeli xa ugcwalisiwe) ngokusebenzisa imilinganiselo engekho seSikweni umz amacephe neekomityi • Chaza ubuninzi besikhongozeli ngokubala nokuxela ukuba zingaphi iiyunithi ezingekho seSikweni ukugcwalisa isikhongozeli, umz. ibhotile inobuninzi beekomityi ezine. • **Umlinganiselo ongekhoseSikweni** • Qikelela, thatha umlinganiselo, thelekisa, landelelanisa, ze urekhodishe ubuninzi bezinto ngomlinganiselo weelitha • Thelekisa, ulandelelanise ze urekhodishe ubuninzi bezinto ezilungiselelwe iintengiso ezinobunziba obuxelwe ngeelitha umz iilitha ezimbini zobisi, ilitha enye yesiselo esibandayo, iilitha ezintlanu zepeyinti	• Qikelela, thatha umlinganiselo, thelekisa, landelelanisa, ze urekhodlshe ubuninzi bomthamo wezikhongozeli (ubuninzi bomthamo wesikhongozeli xa ugcwalisiwe) ngokusebenzisa imilinganiselo engekho seSikweni umz amacephe neekomityi • Chaza ubuninzi besikhongozeli ngokubala nokuxela ukuba zingaphi iiyunithi ezingekho seSikweni ukugcwalisa isikhongozeli umz ibhotile inobuninzi beekomityi ezine. • **Umlinganiselo ongekhoseSikweni** • Qikelela, thatha umlinganiselo, thelekisa, landelelanisa, ze urekhodishe ubuninzi bezinto ngomlinganiselo weelitha • lihafu zelitha neekota zelitha • Thelekisa, ulandelelanise ze urekhodishe ubuninzi bezinto ezilungiselelwe iintengiso ezinobunziba obuxelwe ngeelitha Akukho nguqulelo phakathi kweegrem nekhilogrem, iimililitha neelitha
4.5 **Umjikelezo nommandla**				**Umjikelezo nommandla** Phanda ngomgama ophakathi kweemilo ezinokwakheka kuka 2-D neyi-3-D usebenzisa uthelekiso okanye iiyunithi ezingekho seSikweni. **Ummandla** Phanda i-eriya usebenzisa uthayilisho

AMAGQABANTSHINTSHI ESIGABA ESISISEKO

5. INDLELA YOKUSEBENZA NGOLWAZI OLUQOKELELWEYO

Ukuqhubeka kwindlela yokusebenza ngolwazi oluqokelelweyo

- Undoqo wokuqhubeka kwendlela yokusebenza ngolwazi oluqokelelweyo kumaBanga jikelele lungaphunyezwa ngoku:
- Ukuqhubela phambili ngokuSebenza ngoLwazi oluQokeleleweyo (ulwazi) kuwo onke amaBanga okufezekiswa ngolu hlobo:
  - Ukusuka ekusebenziseni kwento uye kusebenzisa ulwazi / ulwazi; kunye
  - Nokusebenza neefom ezintsha zomelo-lwazi lwedatha.
- Abafundi mabasebenze umjikelo opheleleyo wedatha ubuncinane kanye ngonyaka – oku kuquka ukuqokelelwa nokulungisa ulwazi, ukumela ulwazi, ukuhlahlela/ukucalula, ukutolika nokunika ingxelo ngedatha.
- Ezinye zezi nkangeleko zingentla zedatha zingenziwa njengemisebenzi ekhethekileyo.

ISIHLOKO	IBANGA R	IBANGA 1	IBANGA 2	IBANGA 3
5.1 **Qokelela ze uhlele izinto**	**Ukuqokelela nokulungisa izinto** Qokelela ze uhlele izinto eziphathekayo zemihla ngemihla	**Ukuqokelela nokulungisa izinto** Qokelela ze uhlele izinto eziphathekayo zemihla ngemihla		
5.2 **Ukumela/ ukubonakalisa ingqokelela ehleliweyo yezinto**	**Ukumela/ukubonakalisa ingqokelela ehleliweyo yezinto** Zoba umfanekiso wengqokelela yezinto (ipictograph)	**Ukumela/ukubonakalisa ingqokelela ehleliweyo yezinto** Zoba umfanekiso wengqokelela yezinto		
5.3 **Ukuxoxa nokunika ingxelo ngengqokelela ehleliweyo yezinto**	**Ukuxoxa nokunika ingxelo ngengqokelela ehleliweyo yezinto** Ukuphendula imibuzo emalunga: • Nokuba ingqokelela ihlelwe njani • Ukuzoba ingqokelela	**Ukuxoxa nokunika ingxelo ngengqokelela ehleliweyo yezinto** • Nika izizathu zokuba ingqokelela ihlelwe njani • Ukuphendula imibuzo emalunga - Nokuba uhlelo lwenziwe njani (inkqubo) - Ibonakala njani le ngqokelela ihleliweyo(imveliso) • Chaza ingqokelela okanye/ umzobo • Cacisa ukuba le ngqokelela ihlelwe njani		

ISIHLOKO	IBANGA R	IBANGA 1	IBANGA 2	IBANGA 3
5.4 **Ukuqokelela nokulungisa ulwazi**		**Ukuqokelelo nokulungisa ulwazi** • Qokelela ulwazi emalunga neklasi okanye isikolo ukuphendula imibuzo ebuzwa ngutitshala	**Ukuqokelelo nokulungisa ulwazi** • Qokelela ulwazi emalunga neklasi okanye isikolo ukuphendula imibuzo ebuzwa ngutitshala • Lungiselela ulwazi ngokungqinelana kwazo	**Ukuqokelelo nokulungisa ulwazi** • Qokelela ulwazi emalunga neklasi okanye isikolo ukuphendula imibuzo ebuzwa ngutitshala • Lungiselela ulwazi enikezelwe ngutitshala okanye incwadi yomfundi • Lungiselela ulwazi ngoko - Uluhlu - Ngokungqinelana - kwetheyibhile
5.5 **Ukubonakalisa ulwazi**		**Ukubonakalisa ulwazi** Ukubonakalisa igrafu yemifanekiso (picto graph) ejongene no-1 ukuya ku-1 kuphela	**Ukubonakalisa ulwazi** Ukubonakalisa igrafu yemifanekiso, ejongene no-1 ukuya ku-1 kuphela	**Ukubonakalisa ulwazi** • Lungiselela ulwazi ngokwe - igrafu yemifanekiso, ejongene no-1 ukuya ku-1 kuphela - igrafu yezitena(bar graph)
5.6 **Ukucalula nokutolika ulwazi**		**Ukucalula nokutolika ulwazi** Phendula imibuzo emalunga nedatha yegrafu yemifanekiso ejongene no-1 ukuya ku-1 kuphela	**Ukucalula nokutolika ulwazi** Phendula imibuzo emalunga nedatha yegrafu yemifanekiso ejongene no-1 ukuya ku-1 kuphela	**Ukucalula nokutolika ulwazi** Phendula imibuzo emalunga nolwazi enikezelweyo • igrafu yemifanekiso ejongene no-1 ukuya ku-1 kuphela • igrafu yezitena

3.3 INKCAZELO NGOMXHOLO

Kweli candela lenkcazelo ngomxholo utitshala unikwe oku kulandelayo:

- Amagqabantshintshi ekota eBanga labaQalayo ukuya kwiBanga lesi- 3.
- Ingcebiso ngendlela yokulandelelelanisa izihloko ngokweekota: ayiyiyo yonke imiba yezihloko emayifundiswe kwikota nganye. Eminye imiba yezihloko kufuneka ifundisiwe kuqala phambi kokuba kufundiswe eminye.
- Ingcebiso ngexesha emalithathwe ukufundisa izihloko ezithile apha enyakeni. Ixesha emalithathwe ukufundisa umxholo othile liyohluka - omnye umxholo ufuna ixesha elininzi kunomnye.
- Ingcaciso nemigaqo yokufundisa enemizekelo apho kuyimfuneko.

Ummandla womxholo ngamnye wohlulwe wazizihloko. Yonke imimandla yomxholo kufuneka ifundiswe kwikota nganye. Ukulandelelaniswa kwezihloko ngokweekota kunika uluvo lokuba izihloko zingasasazwa njani kwaye zingahlaziywa njani apha enyakeni. Akuyomfuneko ukuba zifundiswe kwikota nganye zonke izihloko zezithuba, iimilo nomlinganiselo wokusebenza ngolwazi oluqokelelwayo. Kodwa ke zonke ezinye izihloko mazifundiswe unyaka wonke.

Kwisahluko sesi-2 (umhlathi 2.6) indlela yokuthatha umlinganiselo umxholo inikiwe. Xa oku kudityaniswe neeyure zonyaka (jonga kumhlathi we-3.5 ngasezantsi) unokuthi ukwazi ukubala iiyure eziqingqiweyo zommandla womxholo ngamnye.

Ootitshala banokukhetha indlela yokulandelelanisa nexesha emalithathwe kumxholo ngamnye ngendlela eyahlukileyo, oko bekwenza ngokweengcebiso abazifumene kwesi sahluko. Oko kukuthi ootitshala Bangalitshintsha kancinci ixesha ebelicetyisiwe elabelwe isihloko eso kodwa ke makuqatshelwe umlinganiselo neeyure ezimiselweyo zommandla womxholo weMathematika wesiGaba esisisiSeko.

- **IMathematika yeBanga labaQalayo** yimilo yeMathematika yabaQalayo kwaye ke ayohlulwanga ngokwamaxesha esifundo. Utitshala weBanga labaQalayo makadibanise iMathematika kwizifundo zemihla ngemihla kodwa ke ixesha malibekwe bucala apho utitshala aqwalasela ngokukodwa kwimisebenzi yeMathematika. Ukuba akakwenzi oku abafundi abasayi kuye bazazi kwaye bavelise **iingqiqo nezakhono ezinqwenelekayo**.
- Ixesha lamaBanga oku-1 - 3 labiwe ngolu hlobo:
    - **Iiyure ezisixhenxe ngeveki (10 iiveki x 4 iikota x 7 iiyure = 280 iiyure ngonyaka) kufuneka iiyure ezisixhenxe ngeveki zisetyenziselwe iMathematika**)
    - Isifundo ngasinye seMathematika kufuneka sibe **yiyure e-1, imizuzu engama-24 ngosuku kwiBanga loku-1 ukuya kwelesi-3**
    - **Oku kuthetha ukuba kukho ii**kota ezine ezineeveki ezilishumi ezinezifundo ezintlanu (Ukusuka ngomvulo ukuya kutsho ngolwesihlanu) ngeveki.
    - Vumela ithuba elingangeveki ukulungiselela ukuqhelanisa nokuqinisa ukuqala kwekota nganye kuba abantwana abancinci bayakulibala oko bakufundisiweyo ngakumbi ngexesha leholide kwaye bayaphuma kwisingqi sesikolo. Vumela iveki ekupheleni kwekota ukuqinisa iingqiqo. Oku kunika 8 x 4 x 5 = 160 zezifundo.

3.4 UKULANDELELANISA NESANTYA SOMXHOLO

Ezi theybhile zilandelayo zinikiwe kwiBanga ngalinye kwiBanga labaqalayo ukuya kwelesithathu (R-3):

- Isantya sezihloko zonyaka (zibonisa ukusasazwa kwezihloko ngokweekota kwaye zicebisa ngokomlinganiselo wexesha emalichithwe kummandla womxholo.
- Ukulandelelana kwezihloko zonyaka (bonisa ukuba izihloko zabiwe ngokweekota kwaye kukho inkqubela phambili yomxholoi nezakhono kwiikota zonke)
- Ukucaciswa kwamanqaku ngokwesihloko –ezi theyibhile zinika ingcaciso ngomxholo nesikhokelo sokufundisa sesihloko ngasinye njengoko silandelelanisiwe ngokweekota.

Iiplani zezifundo – Ukwabiwa kwexesha ngokwekota

Inani sesona sihloko sibalulekileyo kwimathematika yamaBanga asisiseko. Amaxesha amaninzi kwiveki nganye, kwikota kunye nonyaka kugqaliselwa kumanani,izibalo nolwalamano.Iavareji kukuba nezifundo zeMathematika ezintathu okanye ezininzi kunoku ezigqale kuManani,Izibalo,noLalwamano.Ixesha elishiyekileyo malahlulwe kweminye imimandla yomxholo.Isithuba neSimo noMlinganiselo zifuna ixesha nengqwalaselo kunolwazi olusetyenziselwa ukuhlalutya iiPateni,Iifankshini ne-Aljibra.Itheybhile engezantsi ibonisa inani lezifundo ezabelwe umxholo nezihloko zeBanga ngalinye kwiiPateni,Isiphumo sentsebebnziswano yamanani ne-Aljibra,Isithuba neSimo.uMlinganiselo, ukusebenza ngoLwazi olusetyenziselwa ukuhlalutya:

Ukwabiwa kommandla womxholo nezihloko kwizifundo zeBanga labaqalayo

Njengoko **kwiBanga labaqalayo** imathematiki ikwimo **yemathematika yabaqalayo i**ingcebiso ezilandelayo zokwabiwa kwexesha zinika ugqaliselo kwiziqendu zemathematika nemisebenzi engekho seSikweni ehambelanayo. Oku kukuqinisekisa ukuba zonke iinkalo zomxholo zikhona. Imisebenzi yemathematiki yabaqalayo inokuba kukubala inani lezitya neekomityi zokugalela izimuncumuncu,ukubala imidlalo edlalwa naphandle ,imidlalo edlalwa ngaphakathi endlwini umz. Idomino neephazili.Utitshala kufuneka alungise yonke imisebenzi ngokweemfuno zabafundi kunye nezixhobo zokufundisa ezikhoyo egumbini lokufunda.

ISithuba neMilo yimiba ebalulekileyo ekukhuleni kwemathematika kubafundi abancinci kwaye kufuneka isasazwe evekini,kugqalwe kwiziqendu ezithile phantsi kwenkxaso katitshala kunikwe namathuba amaninzi okuba abafundi bakhe izinto,badlale ngesanti namanzi.

Umlinganiselo mawufakwe kwimisebenzi yokubala,umz ukuthelekelela nokubala xa bethatha umlinganiselo umgama ngezandla,ngeenyawo namanqwanqwa.

Irejista yokubhalisa abafundi netshati yemozulu zinika ithuba elininzi lokusebenza **ngolwazi olusetyenziselwa ukuhlalutya.**

Itheyibhile 3.1: Ulwabiwo lwexesha ngeveki ngokommandala womxholo

UMMANDLA WOMXHOLO	ISIHLOKO	Ixesha elinokusetyenziswa
Amanani, Ii-Opareyshini noLwalamano	Ukubala Ukuqaphela amanani Chonga aze achaze amanani azeleyo Ulwazi ngamanani Ukusombulula iingxaki zezibalo	Imizuzu eli -120
IiPateni , iiFankshini ne-Aljibra	Kopa,andise aze ayile iipateni zakhe	Imizuzu engama- 80
Isithuba nemilo (Ijiyomeri)	Nakana, chonga uze axele ukwakheka kweemilo zejiyometri / imifanekiso enokwakheka kuka 2-D. Yakha izinto ezinokwakheka kuka 3-D besebenzisa izixhobo eziphathekayo. Ukuzalana ngokwesithuba Izalathiso	Imizuzu engama- 80
Umlinganiselo	Ixesha Ubude Ubunzima Umthamo	Imizuzu engama- 80
Ukusebenza ngolwazi oluqokelelweyo	Qokelela, hlela, zoba, funda uze abonakalise ulwazi	Imizuzu engama- 60
IIYURE ZIZONKE		Imizuzu engama- 420 Iiyure ezisi -7 ngeveki

- **Ukwabiwa kwenkalo nezihloko kwizifundo zebanga loku-1 ukuya kwelesi-3**

Izifundo ezintathu ubuncicnci ngeveki mazichithwe kufundiswa Amanani,Izibalo,Ukuzalana (umz phakathi kwe 4 ne 4 $\frac{1}{4}$ seeyure). Izifundo ezibini ezishiyekileyo (umz.phakathi 2 $\frac{1}{2}$ ne 3 seeyure) mazahlulwe phakathi kwezihloko zeminye imimmandla yomxholo njengoko kucetyisiwe ngasezantsi.

Itheyibhile 3.2: Inani lezifundo ezicetyiswayo zebanga loku-1 ngekota

UMMANDLA WOMXHOLO	IZIHLOKO	Inani lezifundo				
		Ikota yoku- 1	Ikota yesi- 2	Ikota yei -3	Ikota yesi -4	Iiyure zizonke
Amanani, ii-Opareyshini noLwalamano	Zonke izihloko zaManani,ii-Opareyshini noLwalamano.	22	30	28	25	**105**
IiPateni , iiFankshini ne-Aljibra	Iipateni yamanani	3	3	3	3	**12**
	Iipateni zejiyometri	1	1	1	1	**4**
Isithuba nemilo (IJiyometri))	Iimilo zokwakheka kwe 2-D		3		3	**6**
	Ukwakheka kwezinto kuka 3-D	3		2	1	**6**
	Indawo, fumana indawo apho ikhoyo nembonakalo	2			1	**3**
	Ulingano macala			1	1	**2**
Umlinganiselo	Ixesha	2				**2**
	Ubude	2		2		**4**
	Ubunzima	2			2	**4**
	Umthamo	1	2		1	**4**
Ukusebenza ngolwazi oluqokelelweyo	Ukuqokelela, ukuhlela, abonakalise aze acalule izinto	2	1			**3**
	Umjikelo opheleleyo wolwazi			3		**3**
	Izintlu zomjikelo wolwazi				2	**2**
Izifundo zizonke		**40**	**40**	**40**	**40**	**160**

Itheyibhile 3.3: Inani lezifundo ezicetyiswayo zebanga lesi-2 ngekota

UMMANDLA WOMXHOLO	IZIHLOKO	Inani lezifundo				
		Ikota yoku- 1	Ikota yesi- 2	Ikota yei -3	Ikota yesi -4	Ilyure zizonke
Amanani, ii-Opareyshini noLwalamano	Zonke izihloko zaManani, ii-Opareyshini noLwalamano	24	25	24	26	**99**
IPateni , iiFankshini neAljibra	Iipateni yamanani	3	3	3	3	**12**
	Iipateni zejiyometri	1	1	1	1	**4**
Isithuba nemilo (IJiyometri)	Iimilo zokwakheka kuka 2-D		3		3	**6**
	Ukwakheka kwezinto kuka 3-D	3		2	1	**6**
	Indawo, fumana indawo apho ikhoyo nembonakalo		2	1		**3**
	Ulingano-macala		1		1	**2**
Umlinganiselo	Ixesha	3	1	3	1	**8**
	Ubude	3			1	**4**
	Ubunzima		3		1	**4**
	Umthamo			3	1	**4**
Ukusebenza ngolwazi oluqokelelweyo	Umjikelo opheleleyo wolwazi	3		3		**6**
	Izintlu zomjikelo wolwazi		1		1	**2**
Izifundo zizonke		**40**	**40**	**40**	**40**	**160**

Itheyibhile 3.4: Inani lezifundo ezicetyiswayo zebanga lesi-3 ngekota

UMMANDLA WOMXHOLO	IZIHLOKO	Inani lezifundo				
		Ikota yoku- 1	Ikota yesi- 2	Ikota yei -3	Ikota yesi -4	Ilyure zizonke
Amanani, ii-Opareyshini noLwalamano	Zonke izihloko zaManani, ii-Opareyshini noLwalamano	26	22	19	27	**94**
IiPateni , iiFankshini ne-Aljibra	Iipateni yamanani	3	3	3	3	**12**
	Iipateni zejiyometri	1	1	1	1	**4**
Isithuba nemilo (IJiyometri)	Iimilo zokwakheka kuka 2-D	2		2		**4**
	Iimilo zokwakheka kuka 3-D		3	3	1	**7**
	Indawo, fumana indawo apho ikhoyo nembonakalo		2	3		**5**
	Ulingano-macala		2		1	**3**
Umlinganiselo	Ixesha	3	2	3	2	**10**
	Ubude		2	2		**4**
	Ubunzima		2		1	**3**
	Umthamo	2			1	**3**
	Umjikelo			1		**1**
	I-eriya				2	**2**
Ukusebenza ngolwazi oluqokelelweyo	Umjikelo opheleleyo wolwazi	3		3		**6**
	Izintlu zomjikelo wolwazi		1		1	**2**
Izifundo zizonke		**40**	**40**	**40**	**40**	**160**

AMAGQABANTSHINTSHI EBANGA LABAQALAYO 1. AMANANI,II-OPAREYSHINI NOKUZALANA				
UKUBALA				
ISIHLOKO	**IKOTA YOKU-1**	**IKOTA YESI-2**	**IKOTA YESI-3**	**IKOTA YESI-4**
1.1 Ukubala izinto **Qikelela uze ubale izinto ukuvelisa ulwazi ngamanani.**	**Uluhlu lwanani: 1-5** • Uhambelwano lwamanani Yazisa itshati yoncedo uze ulandelelanise indlela izimuncumuncu ezinikezelwa ngayo • Bala ngoononye - Izixhobo eziphathekayo - Amalungu omzimba - Ukuqhwaba izandla - Ukungqisha - Ukunyuka ngamanqwanqwa • Bala ngokucengceleza -izicengcelezo zamanani neengoma	**Uluhlu lwamanani: 1-7** • Uhambelwano lwamanani Bethelela itshati yoncedo imihla ngemihla • Bala ngoononye - Izixhobo eziphathekayo - Amalungu omzimba - Ukuqhwaba izandla - Ukungqisha - Ukunyuka ngamanqwanqwa • Bala ngokucengceleza izicengcelezo zamanani neengoma • Qhwaba izandla amaxesha amaninzi/ambalwa	**Uluhlu lwamanani: 1 - 10** • Uhambelwano lwamanani Bethelela itshati yoncedo imihla ngemihla • Bala ngoononye - Izixhobo eziphathekayo - Amalungu omzimba - Ukuqhwaba izandla - Ukungqisha - Ukunyuka ngamanqwanqwa • Bala ngokucengceleza izicengcelezo zamanani neengoma • Qhwaba izandla:amaxesha amaninzi/ambalwa Leliphi inani lokuqhwaba elimbalwa/ elininzi zininzi/zimbalwa, ezona zininzi/ezona zimbalwa	**Uluhlu lwamanani: 0 - 10** • Uhambelwano lwamanani Bethelela itshati yoncedo imihla ngemihla • Bala ngoononye - Izixhobo eziphathekayo - Amalungu omzimba - Ukuqhwaba izandla - Ukungqisha - Ukunyuka ngamanqwanqwa • Bala ngokucengceleza iziicengcelezo zamanani neengoma • Qhwaba izandla: amaxesha amaninzi/ambalwa zininzi/zimbalwa, ezona zininzi/ezona zimbalwa
1.2 Bala usiya phambili ubale ubuya umva.	**Uluhlu lwamanani: 1** Ukubala okungacwangciswanga kusetyenziswa izicengcelezo zamanani neengoma, zokubala,izinto ezinokwakheka kuka 3-D,ukubala usebenzisa iintshukumo zomzimba. **Bala:** • ngoononye	**Uluhlu lwamanani: 1 ukuya ku- 4** Ukubala okungacwangciswanga kusetyenziswa izicengcelezo zamanani neengoma, izinto zokubala, izinto ezinokwakheka kuka 3-D,ukubala usebenzisa iintshukumo zomzimba neleli yamanani. **Bala** • ngoononye	**Uluhlu lwamanani: 1 ukuya ku -7** Ukubala okungacwangciswanga kusetyenziswa izicengcelezo zamanani neengoma, izinto zokubala, izinto ezinokwakheka kuka 3-D,ukubala usebenzisa iintshukumo zomzimba neleli yamanani. **Bala:** • ngoononye	**Uluhlu lwamanani: 0 ukuya ku -10** Ukubala okungacwangciswanga kusetyenziswa izicengcelezo zamanani neengoma, izinto zokubala,izinto ezinokwakheka kuka 3-D,ukubala usebenzisa iintshukumo zomzimba neleli yamanani. **Bala:** • ngoononye • ngonombini

ISIHLOKO	IKOTA YOKU-1	IKOTA YESI-2	IKOTA YESI-3	IKOTA YESI-4
1.3 **Iisimboli zamanani namagama amanani.** (Nakana uze uchonge iisimboli zamanani baze baqaphele amagama amanani)	**Uluhlu lwamanani:** • Iisimboli zamanani:**1** • Amagama amanani: **nye** - Ukufunda usebenzisa umzimba - Eziphathekayo elinokwakheka ka 3 –D ezinenani elingu -1. - Ezibubambeka ezinamakhadi emifanekiso equka inani u- 1. - Ezibubambeka ezinamakhadi anamachaphaza aquka inani u- 1. • Bethelela ulwazi alufumeneyo olunenani elingu -1	**Uluhlu lwamanani:** • Iisimboli zamanani: **2 ukuya kwi - 4** • Amagama amanani: **nye , mbini , ne.** - Ukufunda usebenzisa umzimba - Eziphathekayo ezinokwakheka kuka - 3 –D ezinamanani 2, 3 no- 4. - Ezibubambeka ezinamakhadi emifanekiso equka amanani 2,3 no- 4. - Ezibubambeka ezinamakhadi anamachaphaza aquka amanani 2,3 no- 4. • Bethelela ulwazi alufumeneyo olunenani elingu -1 ukuya kwisi-4	**Uluhlu lwamanani:** • Iisimboli zamanani: **5 ukuya kwi -7** • Amagama amanani: **ntlanu, ntandathu, sixhenxe** - Ukufunda usebenzisa umzimba - Eziphathekayo ezinokwakheka kuka 3 –D ezinamanani 5, 6 no- 7. - Ezibubambeka ezinamakhadi emifanekiso equka amanani 5,6 no- 7. - Ezibubambeka ezinamakhadi anamachaphaza aquka amanani 5,6 no- 7. • Bethelela ulwazi alufumeneyo olunenani elingu -1 ukuya kwisi-7	**Uluhlu lwamanani:** • Iisimboli zamanani: **0 ukuya kwi - 10** • Amagama amanani: **qanda, sibhozo, lithoba, lishumi** - Ukufunda usebenzisa umzimba. - Eziphathekayo elinokwakhekaku ka 3 –D ezinamanani 0,8,9 no 10 - Ezibubambeka ezinamakhadi emifanekiso equka amanani 0,8,9 no- 10. - Ezibubambeka ezinamakhadi anamachaphaza aquka amanani 0,8,9 no- 10. • Bethelela ulwazi alufumeneyo olunenani eli-0 ukuya kwi-10

ISIHLOKO	IKOTA YOKU-1	IKOTA YESI-2	IKOTA YESI-3	IKOTA YESI-4
NAKANA AMANANI				
1.4 **Chaza, thelekisa uze ucwangcise amanani azeleyo.** (Ukusebenzisa amananikwiimeko eziqhelekileyo)	**Sebenzisa amanani kwiimeko eziqhelekileyo** • Abafundi kufuneka bayazi iminyaka yabo • Ukugqityezelwa kwerejista yabafundi **Sebenzisa iindlela ezininzi zokuthatha irejista Umz.** - Ingaba umfundi onesimboli/ umzobo we- ayisi-khrim ukhona esikolweni namhlanje? - Ingaba umfundi ogama linguSipho ukhona esikolweni namhlanje ? - Ingaba umfundi ogama linguSipho onefani engu Mathole ukhona esikolweni namhlanje ? • Chonga amanani asemfanekisweni nakumaqweqwe anamachaphaza • Dlala umdlalo wamakhadi amanani	**Sebenzisa amanani kwiimeko eziqhelekileyo** • Abafundi kufuneka bazazi iinombolo zezindlu zakumawabo needilesi zabo • Bethelela ukusetyenziswa kwamanani ngokugqibezela irejista njengakwikota yokuqala. umz. - Ingaba umfundi ohlala kwindlu enenombolo ye- 123 ukhona esikolweni namhalnje - Ingaba umfundi ohlala kwinombolo ye 123 Wendy sitalato ukhona namhlanje ? - Ingaba umfundi onenombolo yomnxeba engu 082234567 ukhona esikolweni namhalnje? • Chonga amanani emfanekisweni nakwiqweqwe elinamachaphaza • Dlala umdlalo wamakhadi amanani • Chonga amanani kwisibhengezo/ ucwecwe lolwazi,kwicwecwe elidala lomhla wokuzalwa	**Sebenzisa amanani kwiimeko eziqhelekileyo** • Abafundi kufuneka bawazi amagama abo neenombolo zeminxeba zakumawabo/okanye inombolo yeselula (inombolo yabazali babo) • Bethelela ukusetyenziswa kwamanani ngokugqibezela irejista njengakwikota yokuqala. • umz.ingaba umfundi ubhiyozela umhla wakhe wokuzalwa ngomhla we 16 Matshi ukhona namhlanje? • Chonga amanani asemfanekisweni nakumaqweqwe anamachaphaza • Dlala umdlalo wamakhadi amanani • Chonga amanani kwisibhengezo/ ucwecwe lolwazi,kwicwecwe elidala lomhla wokuzalwa	**Sebenzisa amanani kwiimeko eziqhelekileyo** • Bethelela ulwazi malunga neminyaka,inombolo yendlu,idilesi,inombolo yomnxeba yasekhaya/inombolo yeselula. • Bethelela ukusetyenziswa kwamanani ngokugqibezela irejista njengakwikota yokuqala umz - Bangaphi abafundi abangekhoyo esikolweni namhlanje ? Singakwazi njani oku Abantwana baxoxa ngoku phakathi kwabo. • Qashisa; • Bala iikhabathi ezingenanto • Bala izitulo ezingahlalanga bantu • Chonga amanani asemfanekisweni nakumaqweqwe anamachaphaza • Dlala umdlalo wamakhadi amanani • Chonga amanani kwisibhengezo/ ucwecwe lolwazi,kwicwecwe elidala lomhla wokuzalwa

ISIHLOKO	IKOTA YOKU-1	IKOTA YESI-2	IKOTA YESI-3	IKOTA YESI-4
INGQIQO NGAMANANI (UKUZALANA)				
Chaza, thelekisa uze ucwangcise amanani (Chonga uze uchaze amanani apheleleyo)	**Uluhlu lwamanani: 1** • **Chonga uze uchaze amanani apheleleyo** ukuya kwi-1	**Uluhlu lwamanani: 1 ukuya kwi- 5** • **Chonga uze uchaze** amanani apheleleyo • Amanani apheleleyo 2, 3 nesi-4 • Bethelela amanani -1ukuya kwi-4	**Uluhlu lwamanani: 1 ukuya kwi- 7** • **Chonga uze uchaze** amanani apheleleyo • Amanani apheleleyo 5, 6 ne -7 • Bethelela amanani -1 ukuya kwi -7	**Uluhlu lwamanani: 0 ukuya - 10** • **Chonga uze uchaze** amanani apheleleyo • 8, 9, 10 ne 0 • Bethelela amanani- 0 ukuya kwi -10
Thelekisa ukuba zeziphi ezona kwezi zimbini kwingqokelela yezinto ezi: a) Nkulu nencinci b) Nkudlwana nencinanana c) Eyona incinci neyona inkulu	Thelekisa ukuba zeziphi ezona kwezi zimbini kwingqokelela yezinto ezi**:** • Nkulu nencinci • Nkudlwana nencinanana • Eyona inkulu neyona incinci • (Yazis*a ingqiqo) • Lungisa ezingaphezulu kwesibini kwingqokelela yezinto ozinikiweyo ukusuka kweyona incinci ukuya kweyona inkulu kunye nokusuka kweyona inkulu ukuya kweyona incinci			
Thelekisa ukuba zeziphi e zimbini kwingqokelela yezinto ezi a) Nkulu kune- b) Ncinci kune- c) Lingana ne-	• Ninzi nencinane Umz. Ukuqhwaba ngokungalindelekanga	• Nkulu kune-, ncinci kune- lingana ne- • Ninzi nencinane Umz. ukuqhwaba ngokungaliindelekanga	• Nkulu kune-, ncinci kune- lingana ne- • Ninzi nencinane umz. ukuqhwaba ngokungaliindelekanga • Ukubuza umbuzo ongowona	• Nkulu kune-, ncinci kune- lingana ne- • Ninzi nencinane umz. ukuqhwaba ngokungalindelekanga • Ukubuza umbuzo ongowona

ISIHLOKO	IKOTA YOKU-1	IKOTA YESI-2	IKOTA YESI-3	IKOTA YESI-4
Inani lolandelelwano/ lesingaphi	**Ukwakha ukuqwalasela amanani olandelelwano ngokusaphuhliswayo, umzekelo,** eyokuqala, eyesibini, eyesithathu.... eyokugqibela, elandelayo. • Ukutshayelela ngexesha lokutya lemihla ngemihla nangexesha lokuzikhulula – eyokuqala, eyesibini, eyokugqibela nelandelayo	**Ukwakha ukuqwalasela amanani olandelelwano ngokusaphuhliswayo, umzekelo,** eyokuqala, eyesibini, eyesithathu.... eyokugqibela, elandelayo. • Ukomeleza amanani olandelelano ngokusaphuhliswayo ngexesha lokuzikhulula lemihla nemihla • Ukuwasebenzisa nangexesha lemisetyenzana yezakhono zobomi. • Nangexesha lemisetyenzana yobuchwepheshe bokuyila (xa kukho imfuneko)	**Ukwakha ukuqwalasela amanani olandelelwano ngokusaphuhliswayo, umzekelo,** eyokuqala, eyesibini, eyesithathu.... eyokugqibela, elandelayo. • Ukomeleza amanani olandelelano ngokusaphuhliswayo ngexesha lokuzikhulula lemihla nemihla • Ukuzisebenzisa nangexesha lemisetyenzana yezakhono zobomi	**Ukwakha ukuqwalasela amanani olandelelano ngokusaphuhliswayo, umzekelo,** eyokuqala, eyesibini, eyesithathu....eyokugqibela, elandelayo. • Ukutshayelela amanani olandelelano – okokuqala, okwesibini, ukwesithathu, ukuya kokwesithandathu • Ukomeleza amanani olandelelano ngokusaphuhliswayo ngexesha lokuzikhulula lemihla nemihla • Ukuwasebenzisa nangexesha lemisetyenzana yezakhono zobomi.
UKUSOMBULULA IINGXAKI NGOKWEMEKO USEBENZISA EZI NDLELA ZILANDELAYO:				
1.6 **Ubuchule bokusombulula iingxaki zezibalo** (Ukusebenzisa obu buchule bulandelayo)	**Ukusebenzisa ezi ndlela zilandelayo** • Izixhobo ezibonwayo umzekelo, izinto zokubala	**Ukusebenzisa ezi ndlela zilandelayo** • Izixhobo eziphathekayo umzekelo, , izinto zokubala	**Ukusebenzisa ezindlela zilandelayo** • Izixhobo eziphathekayo umzekelo, , izinto zokubala • Ileli yamanani	**Ukusebenzisa ezindlela zilandelayo** • Izixhobo eziphathekayo umzekelo, , izinto zokubala • Ileli yamanani

ISIHLOKO	IKOTA YOKU-1	IKOTA YESI-2	IKOTA YESI-3	IKOTA YESI-4
1.7 **Ukudibanisa nokuthabatha** Ukusombulula izibalo zomlomo nokucacisa isisombululo efakela okulandelayo: a) Ukudibanisa nokuthabatha ngeempendulo ezifikelela kwi -10 **1.9** **Ukwahlula ngokwamaqela nokwaba ngokulinganayo okukhokelela kulwahlulwa-hlulo.** b) Ukwaba ngokulinganayo nangamaqela kumanani apheleleyo ukuya kwi-10 ngeempendulo eziquka intsalela.		• Ukusebenzisa izixhobo zokubala nokusombulula izibalo eziquka u-1,-2,-3 no -4 ngokuthetha. • Ukubethelela ukusonjululwa kwezibalo eziquka amanani ukusuka kwelo- 1 - 4	• Ukusebenzisa izixhobo zokubala nokusombulula izibalo eziquka u-5,-6, no -7 ngokuthetha. • Ukubethelela ukusombululwa kwezibalo eziquka amanani ukusuka kwelo-1 - 7	• Ukusebenzisa izixhobo zokubala nokusombulula izibalo eziquka u-8,-9, -10 no 0 ngokuthetha. • Ukubethelela ukusombululwa kwezibalo eziquka amanani ukusuka kwelo-1 – 10.

ISIHLOKO	IKOTA YOKU-1	IKOTA YESI-2	IKOTA YESI-3	IKOTA YESI-4
1.11 **Imali**		**Imali** • Velisa ukwazi imali yaseMzantsi Afrika engumwangalala. • 20c, 50c, R1, R2, R5 • Chonga imibala kunye nezilwanyana ezibonakala kwezi nkozo. • Chonga ukufana nomahluko okhoyo kwezi nkozo umz. hlela imali ngokombala nangobukhulu • Banike imali yokudlala kwikona yasekhaya.	**Imali** • Velisa ukwazi imali yaseMzantsi Afrika engamaphepha • R10, R20, R50, R100, R200, • Chonga ukufana nomahluko okhoyo phakathi kwemali engamaphepha umz. hlela imali ngokombala nangobukhulu • Banike imali yokudlala kwikona yasekhaya.	**Imali** • Banike imali yokudlala kwikona yasekhaya
BALA NGOKUSEBENZISA:				
1.13 **Ukudibanisa nokuthabatha.** Ukusombulula izibalo zokudibanisa nokuthabatha ngokuchaziweyo nezisombululo ukuya kwi- 10 ngokuthetha		Ukusombulula izibalo zokudibanisa nokuthabatha ukuya ku -4 ngokuthetha	Ukusombulula izibalo zokudibanisa nokuthabatha ukuya ku -7 ngokuthetha.	Ukusombulula izibalo zokudibanisa nokuthabatha ukuya ku -10 ngokuthetha.

Iintlobo Zezibalo kwiSigaba sabaQalayo(R)

Izibalo ezimiswayo kubafundi beSigaba sabaQalayo kufuneka kuquke izinto ezisegumbini lokufundela kuphela, umzekelo, izinto zokubala, abantwana, izihlangu, kodwa ingabi ziilekese, imivundla iityatyambo, njalo-njalo. Ayingabo bonke abantwana abancinci abanokuzikhohlisa ngokuthi izibali okanye iminwe yimivundla – badinga izinto ngokwazo. Utishala angasebenzisa imifanekiso kwisiqendu sesibini sonyaka kuphela. Izinto eziphathekayo mazigcinwe – imifanekiso kukongeza, ayithathi indawo yezinto ezibonwayo. Amasetyana angasetyenziswa xa utitshala engenazo izixhobo.

Izibalo ezilandelayo zizekelisa iintlobo zezibalo emazilungelelaniselwe utitshala ukulungela umngangatho wokuqonda wabafundi bakhe.

Ukwahlula ngamaqela

Nanga amaqebengwana a – 8. (Utitshala ukhupha iznto zokubala ezi – 8, okanye ubonisa umfanekiso wamaqebengwana a – 8). UThemba ufumana amaqebengwana a - 2 yonk'imihla. Uza kufumana amaqebengwana ngeentsuku ezingaphi ?

Ukwaba ngokulinganayo

Amaqebengwana ama – 6. (Utitshala ukhupha izibali ezi – 6, okanye ubonisa imifanekiso yamaqebengwana ama – 6.) Kufuneka oothedi abathathu babelane ngawo onke amaqebengwana bafumane inani elilinganayo lamaqebengwana. Uthedi ngamnye uza kufumana amaqebengwana amangaphi ?

Ukudibanisa, ukuthabatha, ukudibanisa okuphinda phindiweyo

Abantwana ababini (2) banamehlo amangaphi?

Abantwana abane (4) baneendlebe ezingaphi?

Mingaphi iminwe esandleni esinye (1)?

Mingaphi iminwe kwizandla ezibini (2)?

ULinda unezibali ezintandathu (6). Unika uBandile izibali ezibini (2). Unezibali ezingaphi ngoku?

Ootitshala mabaxube iintlobo zezibalo imihla ngemihla. Mabandise ubukhulu bamanani abawasebenzisayo ngokuthe chu, Bangathathi ngokungathi abafundi abanakho ukusebenza ngamanani amakhulu.

AMAGQABANTSHNTSHI ESIGABA SABAQALAYO (R) 2.IIPATENI, IIFANKSHINI NOLWALAMANO				
ISIHLOKO	**IKOTA YOKU -1**	**IKOTA YESI -2**	**IKOTA YESI -3**	**IKOTA YESI -4**
2.1 **Iipateni zejiyometri** Kopa wandise iipateni ezilula eziphindaphindwayo usebenzisa izinto ezibonwayo nemizobo. (Yila iipateni zakho eziphindaphindwayo)	• Chonga iipateni empahleni, kwizinto nakokusingqongileyo • Kopa ugqibezele iipateni • Kopa iipateni usebenzisa ukubethana komzimba • Kopa,gcwalisa uyile ezakho iipateni	• Kopa, wandise uyile ezakho iipateni • Kopa iipateni ozinikiweyo usebenzisa imali eziinkozo/ engumwangalala	• Kopa, wandise uyile ipateni yakho ngemifanekiso	• Kopa, wandise uyile iipateni zakho ozimameleyo • Kopa ipateni yengxolo • Ipateni yomdlalo wokungciloza

AMAGQABANTSHINTSHI KWISIGABA SABAQALAYO(R) 3. ISITHUBA NEMILO (IJIYOMETRI)				
ISIHLOKO	**IKOTA YOKU -1**	**IKOTA YESI -2**	**IKOTA YESI -3**	**IKOTA YESI -4**
3.1 **Indawo-bumilo, ukufumana indawo apho ikhoyo nembonakalo** Ukuchaza into enye enokwakheka kuka 3-D uyinxulumanisa nenye (umzekelo, ngaphambili nangasemva)	**Ulwalamano ngokobume** **Indawo yezinto ezimbini okanye ezininzi ngokunxulumene nomfundi** • Ngaphambili nangasemva • Phezulu,phezu kwe, ngaphantsi nangezantsi • Ngaphakathi nangaphandle • Phantsi naphezulu • Ecaleni kwe naphakathi kwe **Imidlalo yangaphandle ibalulekile. isixhobo sokugwencela singasetyenziswa ukubethelela, umzekelo:** • Ingqiqo zeMathematika • Ubugcisa bokuyila • Ukwakheka komzimba	**Ulwalamano ngokobume** **Indawo yezinto ezimbini okanye ezininzi ngokunxulumene nemfundo** • Ngaphezulu nangaphantsi	**Ulwalamano ngokobume** **Indawo yezinto ezimbini okanye ezininzi ngokunxulumene nemfundo** • Ngaphambili nangasemva • Phezulu, phezu kwe, ngaphantsi nangezantsi • Ecaleni kwe • Phakathi • Ekhohlo nasekunene • Umsebenzi wephegibhodi **Chaza izinto uzivelela kumacala ngamacala bezibona ngeendlela ezahlukileyo , umzekelo, unodoli, indlu ngaphambili, ngasemva, emacaleni kuxhomekeke ukuba ume ndawoni**	**Ulwalamano ngokobume** **Indawo yezinto ezimbini okanye ezininzi ngokunxulumene nemfundo** • Ngaphambili nangasemva • Phezulu, phezu kwe, ngaphantsi nangezantsi • Ecaleni kwe • Phakathi • Ekhohlo nasekunene **Indawo yezinto ezimbini okanye ezininzi ngokunxulumene nemfundo** • Ngaphambili nangasemva • Phezulu, phezu kwe, ngaphantsi nangezantsi • Ecaleni kwe • Phakathi • Ekhohlo nasekunene • Umsebenzi wephegibhodi • Phambili nasemva
Ulandela izalathiso (eyedwa no/okanye nomnye weqela) ukuzibeka kwisithuba esithile (Ingqiqo yokwalathisa)	• Izalathiso -phambili / emva • Imidlalo enje ngokulandela uloliwe • Imiqobo xa ulandela isalathiso • Ukufunda ngemithambo yomzimba nemisetyenzana ngomculo		• Phambili/ emva • Itshati yeentolo	• Phambili nasemva • Phantsi naphezulu • Ngentla nangezantsi • Ekhohlo nasekunene • Siphuma phi isandi?

ISIHLOKO	IKOTA YOKU -1	IKOTA YESI -2	IKOTA YESI -3	IKOTA YESI -4
3.2 **Izinto ezinokwakheka kuka -3-D** Qonda, uchonga nokuthiya izinto ezinokwakheka kuka 3-D egumbini lokufundela: a) Iibhola b) Iibhokisi	• **Iibhola:** Fundisa unike ithuba lokusebenza ngeebhola • **Iibhokisi:** Fundisa unike ithuba lokusebenza neebhokisi			
3.2 **Izinto ezinokwakheka kuka -3-D** **Chaza, uhlele nokuthelekisa izinto ezinokwakheka kuka 3-D no – 2-D ngo:** a) Ubungakanani (nkulu/ncinci) b) Mbala (bomvu, bhlowu, mthubi,hlaza) c) Imilo (isangqa, unxa-ntathu, isikwere, uxande) d) Izinto eziqengqelekayo e) Izinto ezitshebelezayo	• **Ukufundisa Itshati Yoqoqosho** (ukuhlela izinto zokudlala) • **Ubungakanani:** Hlela izinto ezinokwakheka kuka 3-D ngobukhulu • **Umbala:** hlela izinto ezinokwakheka kuka 3-D no – 2-D ngokwemibala yokuqala • **Imilo:** hlela izinto ezinokwakheka kuka 3-D no 2-D ngokwemilo • Izinto eziqengqelekayo - Chonga uphonononge izinto eziqengqelekayo - Ukomeleza izinto eziqengqelekayo • **Izinto ezitshebelezayo** - Chonga uphonononge izinto ezitshebelezayo - Qonda uphonononge izinto ezitshebelezayo	• Hlela ngokufana nangokwahluka • **Ubungakanani:**hlela izinto ezinokwakheka kuka 3-D ngobukhulu • **Umbala:** chonga uhlele izinto zokubala ngemibala ebomvu, ebhlowu, emthubi neluhlaza • **Imilo:** hlela izinto ezinokwakheka kuka 3-D no 2- D ngokwemilo	• **Ubungakanani:** hlela izinto ezinokwakheka kuka 3-D **ngobukhulu** • **Umbala:** hlela izinto ezinokwakheka kuka 3-D nezimacala-mabini ngokwemibala • **Imilo:** hlela izinto ezinokwakheka kuka -3-D no 2-D ngokweemilo zazo	• **Ubungakanani:** hlela izinto ezinokwakheka kuka 3-D **ngobukhulu** • **Umbala:** hlela izinto ezinokwakheka kuka 3-D nezimacala-mabini ngokwemibala • **Imilo:** hlela izinto ezinokwakheka kuka 3-D no 2-D ngokwemibala

ISIHLOKO	IKOTA YOKU -1	IKOTA YESI -2	IKOTA YESI -3	IKOTA YESI -4
Ukwakha izinto ezinokwakheka kuka 3-D ngokusebenzisa imathiriyeli ephathekayo (umzekelo, iibhloko zokwakha)	**Iyaqhubekeka** • Bonelela ngeebhloko zokwakha nemathiriyeli yokwakha ngexesha lokudlala ngaphakathi yonke imihla • Phonononga ngeebhloko zokwakha	**Iyaqhubekeka** • Bonelela ngeebhloko zokwakha neemathiriyeli yokwakha ngexesha lokudlala ngaphakathi yonke imihla • Phonononga ngeebhloko zokwakha	**Iyaqhubekeka** • Bonelela ngeebhloko zokwakha nemathiriyeli yokwakha ngexesha lokudlala ngaphakathi yonke imihla • Abafundi mabazakhele esabo isakhiwo bekopa kumzekelo onikiweyo • Khuphela isakhiwo esifanayo kuyilo okanye ikhadi lomfanekiso • Ukomeleza ukukhuphela isakhiwo esifanayo kuyilo okanye ikhadi lomfanekiso	**Iyaqhubekeka** • Bonelela ngeebhloko zokwakha nemathiriyeli yokwakha ngexesha lokudlala ngaphakathi yonke imihla • Iyaqhubekeka ngexesha lokudlala ngaphakathi
3.3 **Iimilo ezinokwakheka kuka-2-D.** **Qonda, uchonga nokuthiya iimilo ezinokwakheka kuka 2-D egumbini lokufunda nasemifanekisweni , kuquka:** a) Iisimboli zabafundi b) Igama leklasi **Ukwakha iiphazili** a) Ubuncinane: b) Iikota 1: 6 izijungqe c) Ikota 2: 12 izijungqe d) Ikota 3: 18 izijungqe e) Ikota 4: 24 izijungqe	• Vumela umfundi ngamnye akhethe ikhadi lakhe lesimboli ngosuku lokuqala • Bonisa isimboli/ifoto kwiinyanga ezintathu zokuqala • Yazisa igama leklasi, umzekelo, ngokusebenzisa umfanekiso . • Leyibhelisha ucango ngegama likatitshala . • Ileyibhile ebonisa iBanga labaQalayo **Iiphazili** • **Qalisa ukufundisa iiphazili** unike isikhokelo sokwakha iiphazili • Xoxa umfanekiso wephazili ngohoyo olulodwa kwiinkcukacha ezifana nombala, abantu/ izilwanyana, izinto, ukuma kwabantu/izilwanyana nezinto • Abafundi mabagqibe ubuncinane iphazili enezijungqe ezi-6 ekupheleni kwekota yoku-1.	• Bonisa iisimboli/iifoto zomfundi negama lomfundi kwiinyanga ezintathu ezilandelayo. • Iyaqhubekeka **Iiphazili (Iyaqhubekeka)** • Nika iintlobo ngeentlobo zeephazili ngexesha lokudlala ngaphakathi imihla ngemihla. • Abafundi mabagqibe ubuncinane iphazili yezijungqe ezi-12 ekupheleni kwekota yesi- 2. • Yila bagcwalise eyabo iphazili yezijungqe ezi – 4	• Bonakalisa **igama lomfundi** kuphela • kwiinyanga ezintandathu zokugqibela zonyaka • Iyaqhubekeka **Iiphazili (Iyaqhubekeka)** • Nika iintlobo ngeentlobo zeephazili ngexesha lokudlala ngaphakathi imihla ngemihla • Abafundi mabagqibe ubuncinane iphazili yezijungqe ezi-18 ekupheleni kwekota yesi- 3 • Yila bagcwalise eyabo iphazili yezijungqe ezi – 5	• Bonakalisa **igama lomfundi** kuphela • Kwiinyanga ezintandathu zokugqibela zonyaka • Iyaqhubekeka **Iiphazili (Iyaqhubekeka)** • Nika iintlobo ngeentlobo zeephazili ngexesha lokudlala ngaphakathi imihla ngemihla • Abafundi mabagqibe ubuncinane iphazili yezijungqe ezingama -24 ekupheleni kwekota yesi- 4.

ISIHLOKO	IKOTA YOKU -1	IKOTA YESI -2	IKOTA YESI -3	IKOTA YESI -4
3.3 **Iimilo ezinokwakheka kuka-2-D.** **Ukuqwalasela okuthile** **Iimilo zejiyometri** a) Isangqa b) Unxantathu c) Isikwere d) Uxande e) Ulwazi ngemilo (ukuqinisekisa isimo)	• Tshayelela ukuqwalasela kokuthile (chonga izinto –"ndibona ngamehlo am amancinane") • Ukubethelela isangqa • Ukufundisa isangqa • Ukufundisa unxa-ntathu • Ukubethelela isikwere	• Ukomeleza ukuqwalasela kokuthile ngokuhlela imisetyenzana, ukutshatisa nemisetyenzana yamaqela nexesha lokuqoqosha lemihla ngemihla. • Ukubethelela unxa-ntathu • Ukukwazi ukuqaphela iimilo kwiimo zonke ezifumaneka kuzo (ukuqinisekisa isimo sikanxa-ntathu)	• Ukomeleza ukuqwalasela kokuthile ngokuhlela imisetyenzana, ukutshatisa nemisetyenzana yamaqela nexesha lokuqoqosha lemihla ngemihla. • Ukubethelela isikwere • Ukukwazi ukuqaphela iimilo kwiimo zonke ezifumaneka kuzo (ukuqinisekisa isimo semilo efundiweyo)	• Ukomeleza ukuqwalasela kokuthile ngokuhlela imisetyenzana, ukutshatisa nemisetyenzana yamaqela nexesha lokuqoqosha lemihla ngemihla. • Ukubethelela isangqa, unxa-ntathu, isikwere noxande • Ukomeleza uxande • Ukukwazi ukuqaphela iimilo kwiimo zonke ezifumaneka kuzo (ukuqinisekisa isimo semilo esifundisiweyo)
3.4 **Ulingano macala** Unakana umgca wolingano –macala kunye noko kumngqongileyo	• Chonga amalungu omzimba (phantsi kokubala) • Intloko, amehlo, impumlo, umlomo, isilevu, intamo, amagxa, ingalo, isandla, iminwe, isifuba, umlenze, idolo, unyawo, iinzwane. • Umzimba womntu unamacala amabini • bethelela ukuqwalasela ukuba umzimba unamacala amabini , umzekelo, "icala elinye" "nelinye icala" nto leyo ikhokela "kwicala lasekunene necala lasekhohlo" • Ukuwela umgca osembindini okubandakanywa kwizibalo. • Okungasentla makwenziwe ngexesha lokwakheka komzimba. • Ukusebenzisa izicengcelezo neengoma • Ngexesha lobugcisa bokuyila	• Ukuwela umngca ophakathi-ukwenza intshukumo • Sebenzisa ukuwela umgca osembindini ngexesha leZakhono Zobomi (uKwakheka Komzimba) • izicengcelezo neengoma • Imisetyenzana yobugcisa bokuyila	• Ukuwela umngca ophakathi–imisetyenzana yebhodi • Sebenzisa ukuwela umgca osembindini ngexesha leZakhono Zobomi (uKwakheka Komzimba)	• Ukwakha uqwalaselo lokuba kukho ulingano-macala kwizinto • Sebenzisa ukuwela umgca osembindini ngexesha leZakhono Zobomi (uKwakheka Komzimba)

AMAGQABANTSHINTSHI KWISIGABA SABAQALAYO(R) 4.UMLINGANISELO				
ISIHLOKO	**IKOTA YOKU -1**	**IKOTA YESI -2**	**IKOTA YESI -3**	**IKOTA YESI -4**
4.1 **Ixesha:** Chaza ixesha losuku ngokwe- imini okanye ubusuku .	• Fundisa isigama “imini no-busuku” ne “ukukhanya/ubumnyama “’ • Ekuseni, emva kwemini, ebusuku (ukufunda ngokungekho seSikweni ngexesha lenkqubo yemihla ngemihla netshati yemozulu)			
Ukulandelelanisa iziganeko ezenzeka rhoqo ebomini bakho bemihla ngemihla. a) Inkqubo Yemihla ngemihla b) Itshati Yemozulu	• **Ukuqalisa inkqubo Yemihla ngemihla** - abafundi banikwa ithuba lokulandelelanisa iziganeko ezenzeka emini . - Imifanekiso iboniswa ukusuka ngasekhohlo ukuya ekunene ukwakha icala uqala kulo xa ufunda - Inkokheli yosuku ihambisa utolo olushukunyiswayo ngokwemisetyenzana ekwinkqubo yemihla ngemihla . • **Ukufundisa Itshati Yemozulu (yonke imihla)** - Utitshala ukhokela abafundi ukwazi igama losuku, umhla nenyanga ngengoma nangemvano-siphelo, oonotsheluza nokubonisa iileyibhile neesimboli kwikhalenda ebonisa iveki - Ukwakha uqwalaselo lwesigama sexesha . - Ukubonisa iintsuku zokuzalwa, ukuphuma, iintsuku ezibalulekileyo, iintsuku zokuphumla phakathi evekini . - Ukulandelelanisa iinyanga zonyaka ngengoma.	• **Inkqubo Yemihla ngemihla (iyaqhubekeka)** - Ukubethelela ukulandelelanisa iziganeko ezenzeka ngosuku kwinkqubo yemihla ngemihla • **Itshati yemozulu (yonke imihla)** - Utitshala ukhokela abafundi ukwazi igama losuku, umhla nenyanga ngengoma nangemvano-siphelo, oonotsheluza nokubonisa iileyibhile neesimboli kwikhalenda ebonisa iveki .	• **Inkqubo Yemihla ngemihla (iyaqhubekeka)** - Ukubethelela ukulandelelanisa iziganeko ezenzeka ngosuku kwinkqubo yemihla ngemihla • **Itshati yemozulu (yonke imihla)** - Utitshala ukhokela abafundi ukwazi igama losuku, umhla nenyanga ngengoma nangemvano-siphelo, oonotsheluza nokubonisa iileyibhile	• **Inkqubo Yemihla ngemihla (iyaqhubekeka)** - Ukubethelela ukulandelelanisa iziganeko ezenzeka ngosuku kwinkqubo yemihla ngemihla • **Itshati yemozulu (yonke imihla)** - Abafundi bazi usuku , umhla nenyanga ngoonotsheluza babonise iileyibhile neesimboli kwikhalenda yeveki .

ISIHLOKO	IKOTA YOKU -1	IKOTA YESI -2	IKOTA YESI -3	IKOTA YESI -4
4.1 **Ixesha:** Ukulandelelanisa iziganeko ezenzeka rhoqo ebomini bakho bemihla ngemihla. c) Iintsuku zeveki d) Itshati yamaxesha onyaka	• **Iintsuku zeveki** - Utitshala ufundisa abafundi ingoma okanye imvano-siphelo ngeentsuku zeveki. Phinda yonke imihla xa ku xoxwa ngetshati yemozulu	• **Iintsuku zeveki (iyaqhubekeka)** - Utitshala ufundisa abafundi ingoma okanye imvano-siphelo ngeentsuku zeveki. Phinda yonke imihla xa ku xoxwa ngetshati yemozulu	• **Iintsuku zeveki (iyaqhubeka)**	• **Iintsuku zeveki (iyaqhubeka)**
	- Ukulandelelanisa iintsuku zeveki ngengoma • **Itshati yamaxesha onyaka** - Ukutshayelela itshati ebonisa amaxesha amane onyaka ngokubonisa: o IHlobo o UKwindla o Ubusika o Intwasa-hlobo	• **Itshati yamaxesha onyaka** - Usiba olubonisa ixesha lonyaka liyahanjiswa xa kutshintsha amaxesha onyaka - Ngosuku lokuqala emva kweeholide z esikolo utitshala makabuze abafundi ukuba bebesenza ntoni ngexesha leeholide - Ukwakha uqwalaselo lokwenziwayo ngumfundi ukusukela xa evuka ukuya xa esiya esikolweni . - Ukwakha uqwalaselo ngokwenzekileyo phakathi kwexesha lesidlo sasebusuku nelokulala .	• **Itshati yamaxesha onyaka** - Usiba olubonisa ixesha lonyaka liyahanjiswa xa kutshintsha amaxesha onyaka - Ngosuku lokuqala emva kweeholide zesikolo utitshala makabuze abafundi ukuba bebesenza ntoni ngexesha leeholide	• **Itshati yamaxesha onyaka** - Usiba olubonisa ixesha lonyaka liyahanjiswa xa kutshintsha amaxesha onyaka - Ngosuku lokuqala emva kweeholide zesikolo utitshala makabuze abafundi ukuba bebesenza ntoni ngexesha leeholide
Ukufundisa itshati ngokweentsuku zokuzalwa	• Ukufundisa **itshati yeentsuku zokuzalwa** • Abafundi mabazi iminyaka yabo • Ukwakha uqwalaselo lwecala ekubhekiswa ngakulo xa kufundwa. • Abafundi mabazi iintsuku zabo zokuzalwa (usuku nenyanga)	• Kuyaqhubekeka qho xa kulusuku lomfundi lokuzalwa • Iyaqhubekeka	• Kuyaqhubekeka qho xa kulusuku lomfundi lokuzalwa • Iyaqhubekeka	• Kuyaqhubekeka qho xa kulusuku lomfundi lokuzalwa • Iyaqhubekeka

ISIHLOKO	IKOTA YOKU -1	IKOTA YESI -2	IKOTA YESI -3	IKOTA YESI -4
4.2 **Ubude** Ukuthelekisa nokulandelelanisa izinto ngokuziphatha usebenzisa isigama esisiso sokuchaza ubude. • Baqalise itshati yobude - Linganisa ngezandla (ngokubonwayo nangokumayana) - Ukulinganisa ngemizila yeenyawo (ngokubonwayo nangokumayana) - Ukulinganisa ngetheyipi yukulinganisa (ngokubonwayo nangokumayana) - De, futshane - Ndana, futshanana - Mde,mdana (ngokubonwayo) - Qikelela.	**Ubude** • Ubude nobufutshane, ukuba mdana nokuba mde (ngokubonwayo). • Ukutshayelela isigama sobude. • Itshati yobude ngezandla/iinyawo	**Ubude** • Ende kakhulu nemfutshane kakhulu, endana, emfutshanana (ukuphicotha ubude). • Ukubethelela isigama sobude . • Abafundi bakhangela ukuba bakhulile na oko kwikota ephelileyo ***(abafundi bangathelekisa ubude babo kwinto ekhoyo eklasini, umzekelo, ikhabhathi)***	**Ubude** • Qikelela ubude bezinto ezahlukileyo. • Qikelela ulinganise izinto ezahlukileyo usebenzisa iinyawo, izandla, umsonto, uluthi, njalo-njalo.	**Ubude** • Linganisa ubude bomfundi ngetheyipi yokulinganisa ***(sebenzisa izandla endaweni yetheyipi yokulinganisa).***

ISIHLOKO	IKOTA YOKU -1	IKOTA YESI -2	IKOTA YESI -3	IKOTA YESI -4
4.3 **Ubunzima** Thelekisa, ulandelelanise izinto ngokuziphatha usebenzisa isigama ukuchaza okulandelayo: a) Lula, nzima b) Lulana, nzinyana c) Iyaqhubekeka ngexesha lokudlala ngamanzi nesanti			**Ubunzima** • Fundisa isigama sobunzima ngokuthelekisa ubunzima bezinto ezahlukahlukileyo, umzekelo, - Lula/nzima - Lulana/nzinyana • Ukubethelela ubunzima (lulanyana/nzima)	
4.4 **Umthamo** **Thelekisa ulandelelanise izinto ngokuziphatha usebenzisa isigama ukuchaza okulandelayo:** a) Ayinanto, izele b) Kakhulu, kancinci c) Phantsi kune, phezulu kune d) Iyaqhubekeka ngexesha lokudlala ngamanzi nesanti.			**Umthamo** • Fundisa isigama somlinganiso womthamo ngokuthelekisa umthamo wezikhongozeli ezahlukahlukileyo, umzekelo, - “ayinanto/izele - “ninzi kune/ncinci kune • Ukomeleza umthamo	**Umthamo** • Thelekisa ulandelelanise izinto ngokuphathekayo usebenzisa isigama ukuchaza okulandelayo: - Ayinanto/izele - Kakhulu/kancinci - Ncinci kune/ninzi kune - Ninzi /ncinci - Iyaqhubekeka ngexesha lokudlala ngamanzi nesanti .

AMAGQABANTSHINTSHI KWISIGABA SABAQALAYO(R) 5.UKUSEBENZA NGOLWAZI OLUQOKELELWEYO				
ISIHLOKO	**IKOTA YOKU -1**	**IKOTA YESI -2**	**IKOTA YESI -3**	**IKOTA YESI -4**
5.1 **Ukuqokelela nokuhlela izinto.** **Qokelela ulwazi** **Qokelela** izinto eziphathekayo zodidi olufanayo (emnye okanye/elilungu leqela) umzekelo, amagqabi alishumi, iimilo ezilishumi	• Fundisa isigama solwazi olusetyenziselwa ukuhlalutya ngokuqokelela ulwazi lwenani lamakhwenkwe nenani lamantombazana abaseklasini	• Qokelela izinto (izinti ezahlukeneyo ngobukhulu)	• Buza umbuzo: “Ingaba amagama anonoobumba abathandathu ngawo axhaphakileyo?” • Qokelela ulwazi ukuphendula usebenzisa oonotsheluza bamagama.	• Sebenzisa itshati yokuzalwa ukwazi ukuba lusuku lukabani lokuzalwa olukweyiphi inyanga. • Qokelela ulwazi kubafundi ukwazi umbala wodongwe lokudlala lweveki ezayo, umzekelo, bhlowu, mthubi, luhlaza Qokelela ulwazi (abafundi basebenzisa oluphi uhlobo lwesithuthi xa besiza esikolweni)
Ukuhlela nokurekhodisha ulwazi Hlela izinto eziphathekayo ngobunjani,umzekelo, ubungakanani bamagqabi.	• Hlela ulwazi ngokumisa abafundi ngokwemigca yamakhwenkwe namantombazana.	• Hlela izinto eziqokelelweyo (izinti ngobukhulu bazo.	• Hlela oonetsheluza bamagama ngokwenani kwigama ngalinye.	• Hlela ulwazi ngokweentsuku zokuzalwa zabafundi. • Umntwana ngamnye ukhetha ibhloko emela umbala awukhethileyo aza kudlala ngawo evekini • Hlela ulwazi oluqokelelweyo (abahamba ngenyawo, ngemoto yabazali, iteksi, okanye ibhasi).
5.2 **Ukubonisa ingqokelela ehleliweyo yezinto.** **(Zoba igrafu ukubonisa ulwazi** Zoba umfanekiso nje ngerekhodi yolwazi eqokelelweyo).	• Sebenzisa igrafu ngebhloko okanye imilo ukubonisa ulwazi. • Yenza igrafu ukubonisa ulwazi oluqokelelweyo usebenzisa izitena okanye iimilo	• Zoba igrafu yengqokelela yezinto (izinti ngobukhulu bazo).	• Zoba igrafu ngokuncamathisela unotsheluza wegama phantsi kwekholamu efanelekileyo.	• Zoba igrafu ebonisa iintsuku zabafundi kwinyanga nganye. • Sebenzisa izinto zokwenyani ukwenza igrafu njengebhloko, iityhubhu ezipakishiweyo, iibhokisi zeLego ezimela imibala yodongwe oluza kusetyenziswa, umzekelo, bhlowu, mthubi noluhlaza.
				• Zoba igrafu yemifanekiso ukubonisa abafundi abahamba ngenyawo, abeza ngeteksi,ngeemoto zabazali nabeza ngebhazi.

ISIHLOKO	IKOTA YOKU -1	IKOTA YESI -2	IKOTA YESI -3	IKOTA YESI -4
5.3 **Ukuxoxa nokunika ingxelo ngengqokelela ehleliweyo ye-zinto.** **Funda uze utolikeutolike igrafu** Ukuphendula imibuzo esekelwe kumfanekiso wakho okanye izinto ezihleliweyo, umzekelo, “Uzobe amagqabi amangaphi amakhulu ? Ngawaphi amakhulu kakhulu okanye amancinci?	• Funda utolike ulwazi ngokusebenzisa udongwe ukubonisa inani la makhwenkwe nelamantombazana aseklasini.	• Funda utolike iigrafu usebenzisa imibuzo	• Funda utolike ulwazi ngokubala oonotsheluza bamagama kwikholamu nganye nokufikelela kwisigqibo.	• Funda utolike iigrafu usebenzisa imibuzo ukwazi inyanga eneentsuku ezininzi zokuzalwa . • Ngokukhethwa ngabafundi umbala wodongwe lokudlala uzakuba mthubi ,umzekelo. • Funda utolike iigrafu(Bangaphi abahamba ngeenyawo, abeza ngeteksi, ngebhasi, njalo njalo) .

3.5 AMANQAKU ANGCACISO

IBANGA LABAQALAYO(R) IKOTA YOKU- 1			
Iveki 1 **Uqhelaniso**	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu umsebenzi weMathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
4.1 **Ixesha** Ukulandelelaniswa kweziganeko ezilandelelanayo kubomi bemihla ngemihla Inkqubo yemihla ngemihla	**Ukulandelelanisa iziganeko eziqhubekayo ebomini babo bemihla ngemihla** • Qala ukufundisa inkqubo yemihla ngemihla - Yakha ukulandelelana kweziganeko zosuku olunye. - Imifanekiso mayixhonywe ukusuka ekunene kuye ekhohlo. - Inkokeli yosuku ihambisa isikhombisi ukusuka ekhohlo ukuya ekunene njengoko imisebenzi yenkqubo yosuku iqhubeka. - Abafundi bafumana amava okulandelelanisa iziganeko ngosuku.	Inkqubo yemihla ngemihla inikezelwa ngemo yomfanekiso	Imihla ngemihla, emva kokwaziswa

INKQUBO YEMIHLA NGEMIHLA ECETYISWAYO










Ukufika	**Irejista, imihla yokuzalwa, imozulu, iindaba**	**Umsebenzi weklasi okhokelwa ngutitshala (ucwangciswe kwiCAPS), ubugcisa obubonwayo, umdlalo wangaphakathi okhululekileyo**	**Ithuba lokucoca**	**Umsebenzi weklasi okhokelwa ngutitshala (ucwangciswe kwiCAPS)**		**Amathuba okuya ngasese**



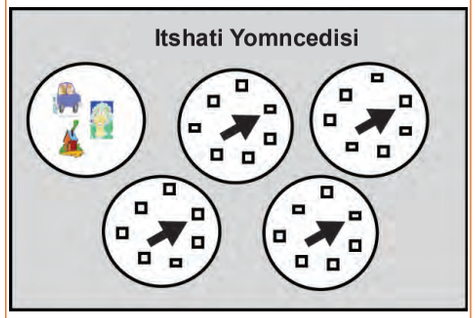





Ixesha lokutya	**umdlalo wangaphandle okhululekileyo nokucoca**	**Amathuba okuya ngasese**	**Umsebenzi weklasi okhokelwa ngutitshala (ucwangciswe kwiCAPS)**	**Ixesha lokuphumla**	**Ixesha lokugoduka**

Iveki 1 Uqhelaniso	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu umsebenzi weMathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
Amanqaku: • Ukunikezelwa/ukufundiswa komxholo kuxhomekeke kwixesha elikwinkqubo yemihla ngemihla. • Inkqubo yemihla ngemihla iyaguqu-guquka, umz amathuba okuya ngasese angasuswa asiwe kwenye inkqubo kuxhomekeke kw imeko yesikolo. • Bonakalisa imisebenzi yetshati kuphela emva kokuba yazisiwe. • **IIKHOLAMU ZAMANQAKU ANGCACISO AZIBHALWA NGOKULANDELELANA, KOKO ZIBHALWA MALUNGA NOMXHOLO.** Ngako oko kufuneka wenze isigqibo sokuba ngowuphi umsebenzi omawenziwe. • Kwezinye iiveki imisebenzi ingaphezulu kwesihlanu. Oku kukuqinisekisa ukuba unemisebenzi eyaneleyo oza kukhetha kuyo, loo nto ayithethi ukuba kufuneka wenze yonke imisebenzi efakiweyo.			
1.4 **Chaza, thelekisa uze ulandelelanise amanani**	• Ukuqalisa izifundo ngamathuba okuya ngasese (sebenzisa amanani olandelelwano ukubonisa idawo-bume) - Khulisa ukuqonda kokulandelelana kwamathuba okuya ngasese, umz amanani olandelwano umz. (qala uye kwindlu yangasese, emva koko hlamba izandla, vala itephu, ze wosule /womise izandla, njalo njalo.) - Yenza uqhelaniso lwamanani aqhelekileyo umz. uNandi ngowokuqala, uNamhla ngowesibini, njalo njalo	isepha, itaweli yobuso, izindlu zangasese, amanzi abalekayo	Emva kokuba amathuba angasese azisiwe, lo msebenzi mawenzeke yonke imihla.

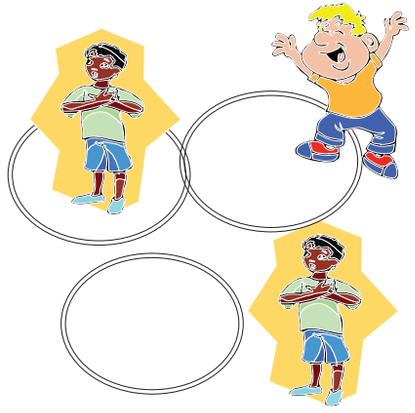
Iveki 1 **Uqhelaniso**	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu umsebenzi weMathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
3.2 **Izinto ezinokwakheka kuka 3-D**	• **Ukwazisa itshati yokucoca** - Misela amaqela amancinci okusebenza. - Khuthaza ukulandelelaniswa nokuhlelwa kwezixhobo Yahlula inani labafundi eklasini yakho babengamaqela asibhozo okucoca. Iqela ngalinye malithabathe inxaxheba ekucoceni indawo betshintshisana ngeveki **Chaza, hlela uze uthelekise izinto ezinokwakheka kuka 3-D ngoko:** • Bungakanani • Umbala • Izinto eziqengqelekayo • Izinto ezitshebelezayo	Itshati yokucoca  Hlamba izikhongozelo zepeyinti neebrashi  Incwadi yokucoca ikona  Ukubuyisela iiblhoko endaweni yazo  Tshayela umgangatho  Ukuqoqosha ikona yendlu  Pakisha/ buyisela iiphazili endaweni yazo  Coca iitafile zobugcisa  Coca i itafile 	Emva kokuba amathuba okucoca azisiwe, lo msebenzi mawenziwe yonke imihla.

Iveki 1 **Uqhelaniso**	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu umsebenzi weMathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.1 **Bala izinto**	• Ukwazisa Itshati Yomncedisi nendlela ekuza kuhanjiswa ngayo ukutya/ ekuza kutyiwa ngayo. **Qikelela uze ubale izinto ukukhulisa ingqiqo yamanani** - Itshati yomncedisi isetyenziselwa ukuchonga umncedisi wosuku oza kulungisa itafile ngexesha lokutya. - Izangqa ezihlanu kwitshati yabancedisi zimele amaqela amahlanu abafundi abahluliweyo, umz iqela elibomvu, iqela elibhlowu, iqela elityheli, iqela eliluhlaza kunye neqela eli-orenji. Angasebenzisa iindidi zeziqhamo/ izilwanyana/ izithuthi njalo njalo. - Isimboli yomfundi ngamnye mayibekwe ngaphakathi kwesangqa seqela angena kulo. - Ukujika iintolo ezidityaniswe phakathi kwisangqa sichaza inkokeli yeqela. Inkokeli yeqela iyajikeleza yonke imihla ukuqinisekisa ukuba umfundi ngamnye ufumana ithuba lokuba yinkokeli. - Inkokeli yeqela ibala inani labafundi neepleyiti malunga nenani labafundi abakhoyo kwiqela laloo mini. (ukuhambelana kwepleyiti nomfundi)	**Itshati yomncedisi**  	Emva kokuba Itshati Yomncedisi yazisiwe, izidlo mazityiwe yonke imihla.
3.3 **Izinto ezinokwakheka kuka -2-D**	**Ukunakana , ukuchonga nokuxela imilo/imifanekiso enokwakheka kuka- 2-D eklasini.** - Iisimboli zabafundi • **Nika umfundi ngamnye ithuba lokuzikhethela isimboli yakhe yekhadi.** - Yenza amalungiselelo ebhloko yobuchule ngesimboli yomfundi ngamnye (umfanekiso okanye ifoto). - Ncamathisela isimboli kwilokhari yomfundi ngamnye. - Yeka umfundi achonge ilokhari yakhe edibana nesimboli yakhe. - Ncamathisela isimboli negama ezimpahleni zomfundi. - Abafundi bachonga iisimboli zabo nezabahlobo babo ngokudlala imidlalo ukukhuthaza abafundi ekuchongeni amakhadi esimboli ahlukileyo umz abafundi benza isangqa notitshala bebonisa zonke iisimboli ze bafuze abafundi ukuba bachonge ezabo. - Iifoto ezincinci zabafundi zingasetyenziswa njengamakhadi esimboli ukuba zikhona. - **Amagama eklasi** • **Bethelela into yokuba abafundi Bangamalungu eqela elinye elikhulu ngokuba iklasi uyinike igama elinye, umz ngokusebenzisa imifanekiso yeklasi.** Abafundi mabalazi igama likatitshala wabo	Amakhadi aneesimboli ezizodwa zabafundi. Yenza amakhadi enziwe ngemifanekiso yeesimboli. Iilokha, iibhokisi okanye iihuku ezixhonywe eludongeni zineesimboli eziphawuliweyo. Ileyibheli yeBanga labaQalayo (R) Umfanekiso wegama leklasi oxhonywa elucangweni. Mawube neleyibheli yegama nefani yetitshala.	Njengokuba abafundi befika ngosuku lokuqala.

Iveki 1 **Uqhelaniso**	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu umsebenzi weMathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
Amanqaku: • Bonisa kuphela isimboli yomfundi/ifoto kwiinyanga ezintathu zokuqala. • Bonisa isimboli yomfundi/ifoto kunye negama lomfundi kwiinyanga ezintathu ezizayo. • Bonisa kuphela igama lomfundi kwileyibheli kwiinyanga ezintandathu zokugqibela enyakeni • Gcina ucango unyaka wonke. • Leyibhelisha igama likatitshala • Leyibhelisha ubonisa iklasi yeBanga R			

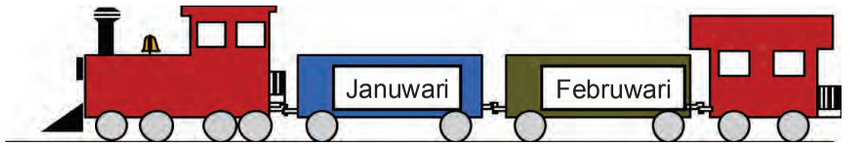
Iveki 2 **Uqhelwaniso**	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu, umsebenzi wemathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.1 **Bala izinto**	**Qikelela ze ubale ngokuthemebekileyo izinto zemihla ngemihla** **Ukubala kwemihla ngemihla** • Ukubala ngentloko/ ngesingqi ukusuka kwisinye ukuya kwisihlanu. • Cula amaculo ngamanani nezicengcelezo Noxa abafundi bengenalwazi ngamanani xa beqala iBanga R, mabakhuthazwe ukuba benze izicengcelezo zamanani amaculo ze babale ngentloko yonke imihla.	Inani lamaculo nezicengcelezo	Imihla ngemihla

Iveki 2 Uqhelwaniso	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu, umsebenzi wemathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.4 **Chaza, hlela, ze ulandelelanise amanani**	**Thelekisa ukuba phakathi kwezinto ezimbini ozinikiweyo yeyiphi enkulu nencinci** **Bafundise ngokhulu noncinci** **Ukufunda usebenzisa intshukumo yomzimba** - Abafundi bafumana amava ngokhulu noncinci, baqotha imizimba bazenze bancinci ze bazolule kangangoko banako bezenza bakhulu. - Xelela abafundi badibanise izandla zabo nezabahlobo bejonga ukuba zezikabani ezikhulu okanye ezincinci. - Thelekisa izandla zikatitshala nezomfundi - Thelekisa ingalo katitshala neyomfundi. **Chaza ,uhlele uze uthelekise izinto ezinokwakheka kuka 3-D no 2-D ngokobungakanani** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Yenza iibhola ezinkulu nezincinci. - Fumana izinto ezinkulu nezincinci - Phawula izinto ezinkulu ngesitikha esibomvu ze ezincinci uziphawule ngesityheli. Thetha malunga nobungakanani obahlukeneyo bezinto . - Hlela izinto ezinkulu nezincinci ngokobungakanani. **Ukusebenzisa izinto okanye iimilo ezokwakheka kuka 2-D okanye imifanekiso** Sebenzisa amagama ‘ubukhulu’ no‘buncinci’ xa usenza imisebenzi yobugcisa: - Ngokukhangela imifanekiso yezinto ezinkulu nezincinci uze uyisike. - Abafundi mababhale ngokucinezela/mabathreyise izandla zabo ze basike umtrheyiso. Mababeke umthreyiso omnye phezu komnye. Jonga ukuba sisandla sikabani esikhulu nesincinci. - Yahlula iphepha kabini. - Ncamathisela zonke izinto ezincinci kwelinye icala lephepha ze uncamathisele izinto ezinkulu kwelinye.	Abafundi Udongwe lokudlala Izinto ezinkulu nezincinci Iimagazini, amaphepha-ndaba, izibhengezo, izikere Iphepha i-A3, iikhrayoni	Usuku olu-1

Iveki 2 **Uqhelwaniso**	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu, umsebenzi wemathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
3.1 **Indawo-bume, ukufumana indawo apho hoyo, nembonakalo**	**Chaza idawo bume yezinto ezi-2 okanye ezi-3 ezinokwakheka kuka 3-D ngokunxulumene nomfundi: ngaphandle nangaphakathi** **Ukufunda usebenzisa intshukumo yomzimba** - Nika umfundi ngamnye uHula-hupu (*Hoops*). (Utitshala ubonisa abafundi ngokuthi enze nabo ebiza abagama “ngaphakathi nangaphandle”). Mabatsibatsibe ngaphakathi nangaphandle uhula-hupu belinganisa imiyalelo katitshala. - Yima ngomlenze omnye kuhula-hupu ze omnye umlenze ube ngaphandle. - Thabatha ibhokisi ze umfundi atsibatsibe ngaphakathi nangaphandle emva koko abafundi baxoxe ngokuba umfundi ungaphandle na okanye ungaphakathi. - Tsibela ngaphandle nangaphakathi kwamavili njengomsebenzi wokuthamba. - Tsibela ngaphakathi nangaphandle kuhula-hupu uvale amehlo. **Ukusebenzisa izinto eziphathekayo ezinekwakheka kuka 3-D** Yeka abafundi: - Batsale unodoli (umntwana) ngaphakathi bafake unodoli phakathi ze bamkhuphele ngaphandle kwekhothi (ibhedi) - Jula ibhola /ibhinbhegi (*bhinbhegi*) kuhula-hupu/evilini - Sebenzisa udongwe ze ulubumbe lube ziibhola izisicaba (indlu yentaka); bumba ngaphezu kwebhola enye (amaqanda) ze uwabeke ngaphakathi/ ngaphandle kwendlwana yentaka ngokomyalelo katitshala. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Yalela abafundi ukuba: - Bajonge umfanekiso ze bakhangele ukuba Bangazifumana na izinto ezibonisa izinto ezingaphakathi nezingaphandle. - Mabazobe zona ngaphandle / ngaphakathi kukahula-hupu/ ibhafu, njalo njalo.	**UHula-hupu (*Hoops*)** 	Usuku olu-1

Iveki 2 Uqhelwaniso	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu, umsebenzi wemathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
3.2 **Izinto ezinokwakheka kuka 3-D**	**Ukwakha izinto ezinokwakheka kuka- 3-D usebenzisa izinto eziphathekayo** • **Phonononga amathuba okwakha iibhloko ngexesha kusenziwa umdlalo okhululekileyo wangaphakathi** - Inxaxheba ethathwa ngutitshala ekujongeni lo mdlalo - Phonononga amathuba okwakha ibhloko ngokuncedisa abafundi ukuba bakhe ngokunqamlezileyo (ezisicaba), ngokwehlayo (sicaba), izakhiwo ezide nezifutshane. - Hlela ze ulandelelanise iibhloko ezahlukeneyo ngokudibanisa ezineemilo ezifanayo. - Hlela ze ulandelelanise iimilo ezahlukeneyo ngokuzidibanisa ngokobungakanani. - Hlela iibhloko ngokobukhulu nobuncinci. - Umfundi ngamnye makafumane ibhloko enamacala anokwakheka kuka 3-D, ebuxande ze azilungise ngeendlela ezininzi, ukuba kunokwenzeka, umz zidwelise ze uziqokelele ngeendlela ngeendlela. Abafundi Bangathelekisa ze bakope /bakhuphele ezabanye. Basenokwabelana ngeebhloko bengamaqela ukubenza baqonde ngeendlela ezimi ngayo. - Nyusela ukupakishwa kweebhloko zokwakha ngokoyilo olunikiweyo olungasemva kweshelfu ngokuzidibanisa ngokolu yilo lunye.	Iibhloko mazipakishwe kwishelfu, ngokoyilo olunikiweyo olungasemva kweshelfu . Izixhobo ezongezelelweyo ezifana neminwe emifutshane, (imifanekiso/ iimbuso ezincanyathiselwe ezimpahleni ngeephegi), iimoto zokudlala, izilwanyana zasezifama, iimpawu zendlela, njalo njalo mazenziwe zifumaneke.	Imini e-1 uze ukuphinde oku ngexesha lokudlala ngokukhululekileyo yonke imihla

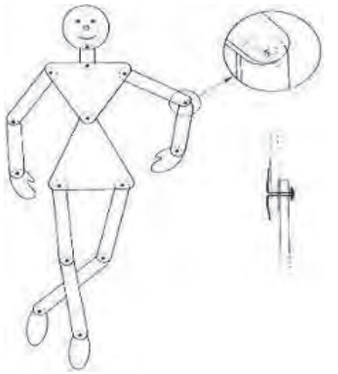
Iveki 2 **Uqhelwaniso**	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu, umsebenzi wemathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
3.2 **Izinto ezinokwakheka kuka 3-D**	**Chaza, hlela ze uthelekise izinto ezinokwakheka kuka 3-D no 2-D ngokwemibala engundoqo, oluhlaza okwesibhakabhaka, obomvu, otyheli/oqanda** Bonisa umbala ube mnye ngexesha. Sukudibanisa umbala omnye nesimo esinye Yahlula abafundi babe ngamaqela amahlanu. Nika iqela ngalinye izinto ezinemibala emininzi ezinokwakheka kuka 3-D no -2-D ngokweemilo. - Bafundise umbala ngamnye ngokubabonisa ikhadi elinalo mbala ufuna abantwana bawazi, umz obhlowu. Wuphinda-phinde nomnye umbala. - Abafundi mabahlele izinto ngokokwakheka kuka 3-D no -2-D ngokwamakhadi awohlukeneyo abonisiweyo. **Ukufunda usebenzisa intshukumo yomzimba** - Ncamathisela izangqa ezinemibala eyahlukeneyo (bomvu, qanda, bhlowu), nqunqa ikhalibhodi esifubeni somfundi ngamnye. - Abafundi mabazicwangcise ngokwemibala eyahlukileyo. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Utitshala ubiza abafundi abahlanu beze ngaphambili ze anike umfundi ngamnye into eyahlukileyo enokwakheka kuka 3-D ukuba ayibambe ngesandla sakhe. - Abafundi abashiyekileyo mabahlale phantsi ngokwamaqela benengqokelela yezinto ezinokwakheka kuka 3-D kumbindi wetafile. - Umfundi wokuqala ngaphambili makaphakamise into yakhe enokwakheka kuka 3-D umz. ibhloko yeyunifiksi ebhlowu okanye isangqa esiqanda, iimilo zelogu okanye iiphazili, njalo njalo - Abafundi, ngokwetafile, bahlela izinto ezahlukeneyo ezinokwakheka kuka 3-D njengoko abafundi beziphethe.	Izinto/imifanekiso eyahlukeneyo enokwakheka kuka 3-D no -2-D/ imifanekiso eklasini umz imintla yeebhotile, iibhloko zeLego, iilogu ezimibala-bala, njalo njalo. amakhadi ayimibala: obhlowu, obomvu, oqanda. Izinto ezahlukeneyo ezikwimo ezinokwakheka kuka 2-D nezi 3-D Izangqa ezibomvu, eziqanda nezibhlowu ngutitshala ezisikwe kwikhalibhothi. Izinto ezahlukeneyo ezikwiimo ezinokwakheka kuka 3-D eziqokelelwe phambi kwexesha ze zabekwa kumbindi weqela ngalinye. **Iresiphi yokupeyinta ngeminwe**: ikomotyi yomgubo ibe nye ikomityi yeswekile ibe nye amathontsi amathathu esijiki-bala sokutya/iphawuda yepeyinti iikomityi ezintlanu zamanzi abilileyo (zamisa amanzi ngokucothayo)	Usuku olu-1
3.3 **Izinto ezinokwakheka kuka 2-D**	**Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Utitshala ulungisa ipeyinti yeminwe kwangethuba - Abafundi bazoba imilo ngepeyinti besebenzisa iminwe. - Batrheyisa imilo ezinokwakheka kuka -2-D ze bayifake umbala.		

Iveki 2 Uqhelwaniso	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engekho ngaphantsi kwesihlanu, umsebenzi wemathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
4.1 **Ixesha**	**Ukulandelelanisa iziganeko ezenzeka rhoqo kubomi babo bemihla ngemihla** • Iinyanga zonyaka • Ixesha **Bafundise itshati yemihla yokuzalwa** - Yila / yenza itshati yemihla yokuzalwa emibalabala umz. uloliwe onamakhareji alishumi elinambini (inyanga nganye) – iinyanga mazilandelelane ukususka ekunene ukuya ekhohlo emakharejini. Beka igama nesimboli /ifoto yomfundi kwinyanga azalwa ngayo. - Benze baqonde ngokufundwa kwexesha umz. iinyanga zonyaka ngokuthi bacengceleze amagama eenyanga bezikhomba ngamagaba eenyanga. - Khulisa ukukwazi ukufunda izalathiso. Umz. Bonisa ileyibheli yenyanga nganye yonyaka kumqolo omnye ukususka ngasekhohlo ukuya ngasekunene. - Yalela abafundi bachonge iisimboli/iifoto zabo ze babethelele entloko (bankqaye) ukuba usuku lwakhe lokuzalwa lukweyiphi inyanga. - Bakhuthaze ukuba bazi iminyaka yabo. - Phinda–phinda lo msebenzi ngokuzingisileyo(amaxesha ngamaxesha) **Itshati yomhla/yosuku wokuzalwa** eneenyanga ezilishumi elinambini zonyaka zibonisiwe ukususka ekhohlo ukuya ekunene Isithsaba okanye umfanekiso wekeyiki yosuku lokuzalwa lubonakalisa ukuba usuku lokuzalwa ludlule. Ingoma: Qamba eyakho ingoma ***"EYOMQUNGU (JANYUWARI), EYOMDUMBA (FEBRUWARI), EYOKWINDLA (MATSHI), UTSHAZIMPUZI (EPRELI), UCANZIBE (MEYI), ISILIMELA (JUNI), EYEKHALA (JUNI), EYETHUPHA (AGASTI), EYOMSINTSI (SEPTEMBA), EYEDWARHA (OKTOBHA), EYENKANGA (NOVEMBA), EYOMNGA (DISEMBA).*** Unyaka wonke xa kukho usuku lokuzalwa.		

Qaphela:

- Usuku lokuzalwa komfundi lubaluleke kakhulu kwaye malubekwe bucala njengomjikelo weemini zokuzalwa apho abafundi baza kucula u"Min' eMnandi Kuwe!" beqhwaba izandla ngokweminyaka yokuzalwa kwamakhwenkwe/amantombazana.
- Umfundi ngamnye eklasini angazoba umfanekiso ze utitshala aqokelele/adibanise yonke imifanekiso kwincwadi yosuku lokuzalwa komntwana, lowo ubhiyozela usuku lwakhe lokuzalwa.
- Utitshala angenza imbasa yosuku lwemini yokuzalwa kwenkwenkwe okanye intombazana ze abafundi bayihombise ngezixhobo zekholaji.
- Lo msebenzi mawuphindaphindwe ngosuku lokuzalwa komfundi ngamnye apha eklasini.

Iveki 3 **Uqhelaniso**	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi weMathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Isihloko**	**Amanqaku angcaciso**
1.1 **Bala izinto**	**Qikelela ze ubale izinto zemihla ngemihla ezithembekileyo** • Ukubala ngomlomo kwemihla ngemihla - Ukubala ngentloko/ ngesingqi ukusuka kwisinye ukuya kwisihlanu. - Cula amaculo ngamanani nezicengcelezo Noxa abafundi bengenalwazi ngamanani xa beqala iBanga R, mabakhuthazwe ekuculeni izicengcelezo zamanani amaculo ze babale ngentloko yonke imihla. Chonga uze ubale amalungu omzimba awohlukileyo (Umfanekiso womzimba)	Inani lamaculo nezicengcelezo	Imihla ngemihla
	Chonga/khetha ze ubale iindawo ezahlukenleyo zomzimba Ukubala kwemihla ngemihla komlomo ukusuka kwisinye ukuya kwisihlanu. **IUkufunda usebenzisa intshukumo yomzimba (Ziqukwe nezakhono zobomi – ubume ubububo bomntu)** - Benze baqonde ngokufundwa kwamalungu omzimba ngokuthi babale amalungu omzimba. - Ndibonise impumlo ze uyibale. Zingaphi iimpumlo zakho? - Ndibonise iindlebe zakho uzibale.,Zingaphi? Ingaba ikho eyongeziweyo? Masibale ngokwengeza. - Ndibonise izandla zakho. Zingaphi? Masizibale.Ubona ntoni ezandleni zakho? Iminwe? Ungayibala? Masibale izandla neminwe: 1,2,3,4,5. - Mangaphi amehlo? Bala iindlebe zakho namehlo akho. Bamba amehlo neendlebe zakho ngeli xesha ubalayo, uqale ngeendlebe zakho. - Hlala ujongane nomhlobo wakho ze ubale amalungu akhe omzimba kodwa qala uwabambe ze uwabale. Utitshala makakhokele le nkqubo, umz bamba indlebe yomhlobo wakho ibe nye; bamba enye indlebe yakhe; yibale/zibale; inye, zimbini. Ingaba ziyafana nezakho. Qhuba nalo msebenzi. - Chonga / khetha amalungu omzimba apho lifumaneka lilinye emntwini umz impumlo inye, umlomo mnye, isilevu sinye, njalo njalo. **Ukusebenzisa iimilo ezinokwakheka kuka- 2-D okanye imifanekiso** Yalela abafundi: - Bajonge isipili ze bazithreyise/ bazizobe. - Mabenze uyilo lwemizimba yabo kwiphephandaba ze bawuhombise kakuhle. Zoba umgca embindini. - Nqunqa / sika imifanekiso yamalungu omzimba ahlukeneyo kwimagazini okanye isibhengezo ze ugqibezele ubuso. - Nqunqa/ sika ubuso kwiimagazini ze uzobe amanye amalungu omzimba ashiyekileyo.	Amaculo aneentshukumo nezicengcelezo Iphazili/ imidlalo ebonakalisa abantu nemizobo yomzimba Amakhadi emidlalo Abafundi Isipili esipheleleyo ngobude Iphepha i-A4 , iikhrayoni Imagazini, Izibhengezo, iiflaya, izikere.	Usuku olu-1

Iveki 3 Uqhelaniso	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi weMathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Isihloko**	**Amanqaku angcaciso**
3.3 **Ulingano - macala**	**Ukuqonda/ukunakana umgca wolingano-macala wakho** **Benze baqonde ukuba umzimba womntu unamacala amabini** **Ukusebenza ngentshukumo yomzimba** Bethelela kwicala elinye / kwelinye icala Utitshala uthetha nabantwana malunga nomphambili womzimba nomva kwakunye nomntla nomzantsi womzimba. **Yenza abafundi:** - Bazijonge esipilini apho banokuthi babone yonke imizimba yabo. - Bachonge /bakhethe okokuba ngawaphi amalungu akwelinye icala aphinde abe kwelinye icala lomzimba. - Babambe amalungu omzimba njengoko kufuneka umz 'bamba iinzwane zakho, bamba iinyawo zakho, bamba imilenze yakho" Abafundi bangenza imithambo bevale amehlo. - Babambe ilungu elinye lomzimba nelinye ilungu lomzimba umz. chukumisa amaqatha akho ngempumlo njalo njalo. (ikwangumsebenzi womgca ogqitha embindini)	Abafundi  Isipili esipheleleyo ngobude utitshala angabeka esebenzisa imilinganiselo yeminwe/umzobo osikwe ekhadibhodini	Usuka olunye
3.2 **Izinto ezinokwakheka kuka 3-D**	**Ukuqonda/ ukunakana, ukuchonga nokuxela izinto ezinokwakheka kuka- 3-D eklasini.** **iibhola** **Benze baqonde, bachonge baze bathiye iibhola amagama** - Abafundi badlala ngeebhola ze babonakalise, baxele zonke izinto abanokuzenza ngebhola. Utitshala ukhokela ingxoxo ngokubuza imibuzo. - Chonga zonke izinto ezinokuqengqeleka umz. bonisa iibhokisi ze ubuze imibuzo: ucinga ukuba ibhloko ingaqengqeleka? Masibone". - Qengqa zonke izinto ze ubukele ukuba ziqengqeleka njani umz iinkonkxa ziqengqelekela kwicala elinye kuphela. - Sebenzisa udongwe ukubumba iibhola ezinokuqengqeleka xa kusenziwa imidlalo (umdlalo wokuzikhethela ngaphakathi). - Ngexesha lentshukumo abafundi Bangazama ukuyeka imizimba yabo iqengqeleke, iqengqwa ngexesha becambalele ngemizimba yabo njengebhola neengqukumba.	izinto ezingqukuva umz ii-orenji, ii -apile, iibhola, iinkonkxa ezingqukuva ezingenanto. (Yenza iibhola usebenzisa izinto esele zisebenzile umz. iibhola zamaphephandaba abotshwe ngekawusi endala) izinto ezisisikweri umz iibhloko ukudlala iresiphi yodongwe: ikomityi yomgubo ihafu yekomityi yetyuwa, ikomityi enye yamanzi, iitispuni ezimbini ze-oyile yokupheka amathontsi ambalwa okujika umbala ukutya	Usuku olu-1 **Xuba zonke izithako**

Iveki 3 **Uqhelaniso**	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi weMathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Isihloko**	**Amanqaku angcaciso**
3.3 **Izinto ezinok-wakheka kuka 2-D**	**Ukuqonda/ ukunakana, ukuchonga nokuxela iimilo ezinokwakheka kuka 2-D eklasini okanye imifanekiso** - **izangqa** • **Ukufundisa izangqa** Xa ufundisa izangqa okokuqala izinto ezisetyenziswayo mazifane ncakasana ngento yonke umz. ubungakanani obunye, umbala omnye, imvakalo enye). **Imisebenzi eyenziwa ngentshukumo yomzimba** Utitshala uzoba isangqa phantsi /emgangathweni. Yeka abantwana bahamba-hambe bejikeleza isangqa ngexesha bethetha, " ndihamba ecaleni kwesangqa…jikelele jikelele" Yenza abafundi: - Babambane ngezandla benze isangqa. - Benze isangqa ngemizimba yabo. - Bajikeleze isangqa ngaxeshanye becula ingoma. - Bahlale phantsi esangqeni bephoselana ngento ukusuka komnye ukuya komnye ngexesha becula "mbongolo, mbongolo, ibigqith' aph' imbongolo". Umfundi osenento ngexesha kuyekwa ukucula, makahambe aye kuhlala embindini wesangqa.	Makusetyenziswe ingoma ehambelana nesangqa. Umdlalo, "inkukhw' ibek' iqanda. Intoni? Iqanda"	Usuku olu-1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Utitshala ubonisa abantwana isangqa sokudlala ze abacacisele ukuba xa sibizwa kuthiwa sisangqa. Isangqa asinazikona. Yenza abafundi: - Baphathe isangqa sokudlala esinokwakheka kuka 3-D ngeli xa bejikeleza isangqa. - Fumane izinto eklasini ezifana ncakasana nesangqa. **Ukuhlela ze bathelekise izinto ezinokwakheka kuka 3-D ngokobungakanani nombala** Utitshala unika abafundi iintlobo ngeentlobo zezinto ezimilo zinokwakheka kuka 3-D no -2-D ngokobungakanani obahlukeneyo (khulu kunye noncinci) kunye nemibala bomvu, qanda, bhlowu) ezifana nebhola yentenetya, amaqam, iibhaloni njalo njalo. Yenza abafundi: - Hlela izinto ngokobukhulu nobuncinci. - Hlanganisa izinto ngokwemibala eyahlukeneyo.	Hula-hupu Izinto eziziindidi ngeendidi ezinokwakheka kuka 3-D ezifana nebhola yentenetya, amaqam, iibhaloni njalo njalo. imilo ezinokwakheka kuka 2-D ezifana nokusika isangqa seplastikhi.	Usuku olu -1

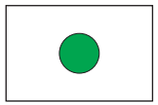
Iveki 3 **Uqhelaniso**	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi weMathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Isihloko**	**Amanqaku angcaciso**
4.1 **Ixesha**	• **Ukwazisa itshati yemozulu nekhalenda** a) Ixesha b) Iintsuku zeveki c) Ukulandelelanisa iziganeko d) Ukubala - Imozulu imele iveki enye (iintsuku ezintlanu) usebenzisa iisimboli zamakhadi. umz iintsuku ezintathu ngeveki zilandelelana ukusuka ekhohlo ukuya ekunene (jonga umzekelo apha ngezantsi) - Imozulu mayenziwe **yonke imihla** - Utitshala ukhokela abafundi ukuqonda amagama eentsuku, imihla, iinyanga ngokoonotsheluza abanemifanekiso (ekugqibeleni abafundi Bangachonga ze babonise oonotsheluza ngokwabo). - Inkokeli yosuku iqwalasela imozulu phandle ze yabelane ngaloo nto iyifumeneyo namalungu eqela xa ewonke umz kuyana, kukho amafu, yimini eshushu. - Utitshala ubonisa abafundi izinto azifumeneyo ngokusebenzisa oonotsheluza njengemifanekiso (ekugqibeleni abafundi Bangabonisa ababo oonotsheluza). - Ngokwenza oku abafundi Bangafunda ngeentsuku zeveki neempelaveki. - Bafunda ngo'namhlanje, izolo, ngomso' njalo njalo, ngokungalindelekanga. - Abafundi banikwa amathuba okubala ukuya kuma kwisihlanu. Babala iintsuku ezishushu, ezibandayo, ezinomoya, njalo njalo. - Babonisa iisimboli zabafundi ukuba ngaba kukho iintsuku zokuzalwa kuloo veki. - Babonisa nawuphi na umsebenzi owenzeka evekini umz. ukuya kumzi wezilwanyana (ibonakaliswe ngomfanekiso wezilwanyana)	Itshati yemozulu kufuneka ibonise iiveki, umz iintsuku zeveki ngokulandelelana kwazo ukusuka ekhohlo ukuya ekunene kwiinyanga zokuqala ezintandathu ze yenziwe yonke imihla. Oonotsheluza: - BeeNtsuku zeveki - Bamanani ukusuka kwisinye ukuya kumashumi amathathu ananye - Amagama eenyanga ezilishumi elinambini - Unyaka umz. 2012 - Amakhadi anemozulu umz  kukho umoya kushushu kuyana kukho amafu	Emva kokuba itshati ifundisiwe yemozulu lo msebenzi mawenziwe yonke imihla. Fundisa abantwana ingoma yeentsuku zeveki abaza kuyazi ngentloko (abaza kuyinkqaya)

Iveki 3 **Uqhelaniso**	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala imizuzu engekho ngaphantsi kwamashumi amathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi weMathematika ngeveki (± 5)**		
Isihloko	**Amanqaku angcaciso**	**Isihloko**	**Amanqaku angcaciso**
Umzekelo wetshati yemozulu	**Itshati yemozulu** **Juni** **2012** **Cawa** Mvulo **Lwesibini** **Lwesithathu** **Iwesine** **Lwesihlanu** **Mgqibelo** 12 13 14 15 16 17 18 		
4.1 **Ixesha**	**Ukulandelelanisa iziganeko ezenzeka rhoqo kwimihla ngemihla ebomoni babo** • **Iintsuku zeveki** Utitshala ufundisa abafundi amaculo nezicengcelezo ezimalunga neentsuku zeveki. Phinda-phinda ukuxoxa ngetshati yemozulu yonke imihla. *Iculo:* *"Zisixhenxe iintsuku zeveki, zisixhenxe iintsuku zeveki".* *"Cawe, Mvulo, Lwesibini, Lwesithathu, Lwesine, Lwesihlanu, Mgqibelo." (phinda-phinda kabini)*	Iculo: Iintsuku zeveki okanye baqambe awabo amaculo eentsuku zeveki.	
Amaxesha onyaka (Ixesha)	• **Ukufundisa itshati ebonisa amaxesha onyaka omane uwabonisa ngotolo:** - Sikweliphi ixesha lonyaka ngoku? - Liliphi ixesha lonyaka esele lidlulile? - Liliphi ixesha lonyaka elizayo/elilandelayo? - Bonisa umfanekiso wexesha lonyaka esikulo neenyanga zalo, umz ngoJanyuwari ukuya kuMatshi ungabonisa umfanekiso waseHlotyeni.	Amakhadi amane awohlukeneyo anomfanekiso wexesha elinye lonyaka. **Amaxesha**  IHlobo UKwindla INtwasahlobo UBusika	Litshintshe elo xesha lixhonyiweyo xa kutshintsha ixesha lonyaka

Qaphela:

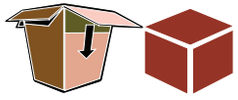
Yonke imiba emitsha mayaziswe ngokwamaqondo alandelayo

- Iqondo lemisebenzi eyenziwa ngentshukumo yomzimba (amava ngemiba yomzimba novakalelo)
- Iqondo lezinto eziphathekayo(ukusetyenziswa kwezinto ezinokwakheka kuka 3-D)
- Iqondo lezinto ezIsemifanekisweni (ukubonakaliswa kwezinto ezinokwakheka kuka 3-D ephepheni umz.ukuzoba, ukudibanisa imifanekiso, amakhadi emidlalo, amaphepha okusebenzela njalo njalo) zonke iimilo ezibizwa ngokuba zimacala mabini.

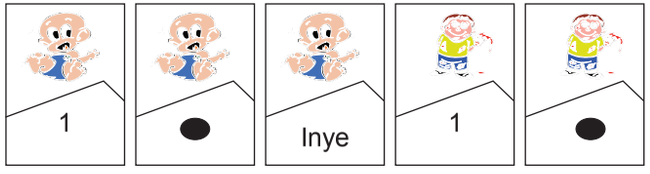
Iveki 4 Ukuqala ukufundisa amanani	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
1.1 **Ukubala izinto**	**Chonga ze uchaze amanani apheleleyo** **Ukufundisa intsingiselo yenani u-1** Ukubala komlomo okuqala kwisinye ukuya kwisihlanu **Ukufunda usebenzisa intshukumo yomzimba** Yenza abafundi: - Bachonge amalungu omzimba umz impumlo enye. - Banqwale intloko kanye, ukungqisha kanye, ukutsiba kanye. - Babambe umnwe omnye, isandla esinye, unyawo olunye njalo njalo - Benze inani isinye ngemizimba yabo - Babhale inani isinye emoyeni/phantsi. - Baqhwabe izandla kanye	Inani lamaculo nezicengcelezo	Usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka- 3-D Yenza abafundi: - Bachonge nayiphina into ezimeleyo eklasini umz. ibhloko eyakhiweyo ibenye. - Benze inani, u-nye ngodongwe.	Izinto eklasini nokusingqongileyo	
	Ukusebenzisa iimilo ezinokwakheka kuka- 2-D okanye imifanekiso Yenza abafundi: - Bachonge imifanekiso ngento enye kumakhadi awahlukeneyo. - Badibanise/babophe amakhadi anemifanekiso ngento enye nemakhadi anechaphaza. - Badibanise rhoqo amakhadi anemifanekiso namakhadi anedothi nenani elinye lesixhobo sokubala umz. dibanisa inani elinye lesixhobo sokubala kwedothi nganye. - Emva kokuba ufundise inani u-inye bonisa, ncamathelisa unotsheluza eludongeni ukuze abafundi bambone yonke imihla.	**Umfanekiso wento enye**  Isixhobo sokubala sibe sinye kumfundi ngamnye Iindidi ngeendidi zemifanekiso ekoonotsheluza. Oonotsheluza abanamachaphaza	

Iveki 4 **Ukuqala ukufundisa amanani**	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
2.1 **Iipateni zejiyometri**	• **Chonga iipateni zokusingqongileyo neempahla zabafundi** Yenza abafundi: - Bathethe ngeepateni ebebeziqwalasele kokusingqongileyo nasezimpahleni zabo: - Ziziphi iipateni ezinemigca, iibhloko? - Ingaba iipateni ziyafana zonke, yintoni umahluko, zifana ngantoni? - Yenziwe ngantoni ipateni? - Ipateni iphindaphindiwe – imigca/ ibhloko/imilo **Ukusebenza ngentshukumo yomzimba** Utitshala ubopha iribhoni ebomvu nebhlowu kwiingalo ezine zabafundi. Wakha ipateni ngokubeka umfundi oneribhoni ebomvu ngaphambili eklasini kulandele oneribhoni ebhlowu ze kugqibele oneribhoni ebomvu. Yeka abantwana bagqibezele le pateni.	 Iiribhoni ezibomvu nezibhlowu	Usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka- 3-D - Utitshala wenza ipateni ngeziciko ezithathu ezibhlowu nezintathu ezibomvu. - Yenza abafundi bakhuphele ipateni katitshala.	Iziciko zeebhotile ezibomvu nezibhlowu kumfundi ngamnye	

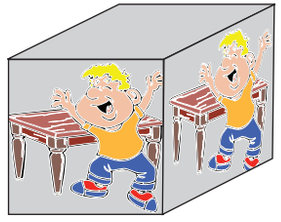
Iveki 4 Ukuqala ukufundisa amanani	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
3.2 **Izinto ezinokwakheka kuka 3-D** **3.3** **Iimilo ezinokwakheka kuka 2-D**	**Ukuqonda/ ukunakana, ukuchonga nokuxela imilo ezinokwakheka kuka 3-D no 2-D eklasini nemifanekiso** **Ukwenza bakwazi ukwahlula phakathi kwezinto ezifotwe zankulu ngaphambili nezo zincinci ngasemva.** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Utitshala ubeka izinto ezahlukeneyo ekalsini naphandle kwibala lokudlalela: Yenza abafundi: - Babonise izinto ezahlukeneyo eklasini umz izinto ezenziwe ngemithi, izinto ezibomvu, izinto ezenziwe ngeplastikhi njalo njalo - Jonga izinto ezithile eklasini ngokomyalelo katitshala umz ibhola kwisikhongozeli sebhloko ye Lego, ithoyi yemoto esekhabhathini, epensile esenkonkxeni njalo njalo.. - Jonga izinto ezifanayo umz amaqhosha angqukuva kulawo ambhoxo, iqamza elibomvu phakathi kwalawo anemibala, njalo njalo. - Hlela izinto ngokweentlobo zazo umz. ubungakanani, umbala, imvakalo okanye imilo. - Dlala umdlalo, “Ndiyalonda ngamehlo am amancinci, into engqukuva.....” - Jonga izinto ezifanayo ngokomyalelo katitshala umz. intaka emthini, iribhoni esemthini, iintyatyambo ezintle,imbovane ihamba emagqabini njalo njalo. - Emakhaya abafundi mabakhuthazwe ukuba bakhuphe amacephe/ iimela/ iifolokhwe	Iindidi zezinto eziseklasini nezokungqongileyo	Usuku olunye
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D/ imifanekiso Bonisa abantwana umfanekiso ze ubabuze imibuzo ehambelana nomfanekiso. Umz: - “Iphethe ntoni intombi encinci esandleni sayo.? - “Bangaphi abantu abakhwele iinqanawe? - Yakha iiphazili ze udlale imifanekiso yedomino elungele ukukhulisa ulwazi labafundi olkuchonga izinto phakathi kwezinye nokuqaphela iinkcukacha .	Nawuphina umfanekiso omkhulu oxoxwayo (ipowusta) **Iiphazili** 	

Iveki 4 **Ukuqala ukufundisa amanani**	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
3.2 **Izinto ezinokwakheka kuka 3-D**	**Ukuqonda/ ukunakana, ukuchonga nokuxela izinto ezinokwakheka kuka- 3-D ngokuphononongo imilo nobungakanani beebhokisi** **Ukufunda usebenzisa intshukumo yomzimba** Yenza abafundi: - Ukugwencela ngaphakathi nangaphandle kwebhokisi. - Hlola ibhokisi ngaphakathi ngokuthetha ngokuthi uxele ukuba yintoni engaphakathi. Umz. ibhokisi inomgangatho/ umphantsi, amacala amane/ amacala nesiciko. - Songa ibhokisi evuliweyo ukujonga imilo. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Sebenzisa iibhokisi ukwakha isakhiwo umz. indlu, igaraji (kwenze xa usebenzisa ubuchule obubonwayo ngeebhokisi ezinobungakanani obungafaniyo) - Nika abafundi izinto ezahlukeneyo ezifana namaqhosha, iibhloko ezingangcitywanga,iziciko zeebhotile, iiklipu zesonka zeplastikhi. Yenza abafundi: - Hlela izinto ngokwamaqela ohlobo olunye - Jonga umahluko phakathi kwezinto - Jonga ukuba ziziphi izinto ezisisikwere nezingqukuva - Hlela izinto ezimbala mnye	 lindidi zeebhokisi ezinkulu nezincinci (ifriji engenanto neebhokisi zesitovu)  libhloko ezingangcitywanga (unifix blocks) ,iziciko zebhotile, iiklipu zesonka zeplastikhi. (abafundi bangeza nazo emakhaya)	Usuku olu- 1

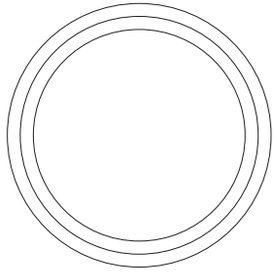
Iveki 4 Ukuqala ukufundisa amanani	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
3.3 **Izinto ezinokwakheka kuka 2-D**	**Ukuqonda/ ukunakana, ukuchonga nokuxela izinto ezinemilo ezinokwakheka kuka-2-D eklasini nemifanekiso.** - unxantathu **Ukufundisa unxantathu** Xa ufundisa unxantathu okokuqala izinto emazisetyenziswe mazifane ncakasana ngandlela zonke (ubungakanani obunye, umbala omnye, inkangeleko enye) Unxantathu unamacala amathathu angqalileyo. Loo nto ibizwa ngokuba ngunxantathu. **Ukufunda usebenzisa intshukumo yomzimba** Yenza abafundi: - Benza imilo ngemizimba yabo umz. abafundi benza unxantathu ngemizimba yabo. - Benza unxantathu besebenzisa iminwe yabo. - Benza unxantathu besebenzisa izicwili zoboya okanye udongwe. - Hamba emdeni wemilo kanxantathu. Ngexesha uhamba thetha, ‘ ndihamba ecaleni lika nxantathu, icala,linye, mabini, mathathu, okanye inye,zimbini,zintathu iikona. - Bamba imilo. Sebenzisa ubungakanani obukhulu bemilo okanye beka imilo eyahlukeneyo ebhegini. Umfundi makabambe imilo esebhegini ze azidibanise zibe yisethi yamakhadi, amakhadi amilo yenziwe kuzo). - Zoba imilo engunxantathu emoyeni, phantsi/emgangathweni nge- (itshokhwe) nasephepheni.	Amakhadi emidlalo akhumbuza ngemilo Uboya okanye udongwe. “ibhegi” (ibhegi yelaphu ene-elastikhi emantla) enemilo yejiyometri. Isethi yamakhadi adityanisiweyo anemilo ezotyiweyo.	Usuku olunye
Ukuchaza, ukuhlela nokuthelekisa izinto ezinokwakheka kuka 3-D no- 2-D.	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Yenza abafundi: - Hlela imilo eLogi ngokwemilo (isangqa nonxantathu), ubungakanani (enkulu nencinci) kunye nombala (ibomvu,iqanda,ibhlowu) - Khangela iimilo ezingoonxantathu eklasini nakokusingqongileyo.	Iphepha i-A4 nekhrayoni Imilo ze-Logi (logi shapes) Izinto eklasini nakokusingqongileyo.	

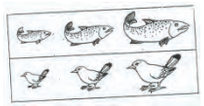
Iveki 5	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
1.1 **Ukubala izinto**	**Chaza ze uchonge amanani apheleleyo** **Ukubethelela ulwazi olufumene kwiveki yesi -4 oluquka inani -1.** **Ngomlomo:** ukubala ngokucengceleza ukusuka kwisinye ukuya kwisihlanu. **Ukufunda usebenzisa intshukumo yomzimba** Yenza abafundi: - Yenza izandi zomzimba umz ukuqhwaba izandla kanye. - Utitshala uveza/ ubonisa unotsheluza obonisa inani: inye ze abantwana baphakamise umnwe omnye, isandla esinye, ngonyawo olunye njalo njalo.	Inani lamaculo nezicengcelezo **Umfanekiso we-nto enye** ● **1** Inye	Usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Yenza abafundi: - Fumana into ibenye eklasini - Bala isixhobo sokubala kanye.	into enye Isixhobo esinye sokubhala	
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D/ imifanekiso - Tshatisa iindidi zomfanekiso omnye, kunye nonotsheluza omnye wedothi. - Tshatisa iindidi zemifanekiso kunye nonotsheluza wedoti nesimboli yenani elinye - Tshatisa isimboli yenani nenani legama likanotsheluza. - Yenza iphazili yenani ze uyeke abantwana bazidibanise umz. 	Iindidi zonotsheluza ezinomfanekiso omnye kunye nedothi enye Unotsheluza onesimboli elinani negama lenani **Umfanekiso wento enye** ● **1** Inye	

Iveki 5	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
3.4 **Ulingano -macala**	**Ukomeleza/ukuqinisa ukuqonda ukuba umzimba omnye unamcala amabini umz icala elinye, elinye icala, ukuya ekhohlo nasekunene** **Ukufunda usebenzisa intshukumo yomzimba** Utitshala ucacisa ngamacala amabini omzimba omnye. Yenza abafundi - Yima ngomlenze omnye ze uphinde ume ngomnye. - Hamba ngesingqi usebenzisa isingqi sesihlukuhli ukuya kwicala elinye leklasi. Xa isihlukuhli siyekile abantwana mabaye kwelinye icala leklasi. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** **U**mfundi ngamnye unikwe ibhin bhegi(bhinbhegi) Yenza abafundi - Beka ibhinbhegi phantsi ecaleni kwabo. - Beka ibhinbhagi iinzwane nezandla njalo njalo. - Beka ibhinbhegi phantsi kwelinye icala lemizimba ze baphinde baye kwelinye icala. - Ukomeleza lo mba unxulumaniso nobuchule obubonwayo ngokuyeka abantwana benze umfanekiso webhabhathane. (Songa iphepha libe yihafu/isiqingatha, galela am./aqabaza epeyinti emigceni esongiweyo; songa esiphakathini ze usasaze ipeyinti ngokukhuhla umfanekiso; vula ujonge ibhabhathane; sika umgca ongumda – ibhabhathane linamacala amabini alinganayo.	Isihlukuhli senziwa ekhaya – isikhongozeli nesiciko, sizaliswe ngamatye. ibhinbhegi yomntwana ngamnye	Usuku olu- 1
3.2 **Izinto ezinokwakheka kuka 3-D**	**Ukuqonda, ukuchonga ze uxele izinto ezinokwakheka kuka 3-D** **Ukufundisa nokuphononongo izinto eziqengqelekayo** - Xoxa ngobungqukuva bezinto. Faka izinto ezingqukuva zibe ninzi ebhegini (ibhegi yelaphu). Abafundi bathatha izinto ebhegini baze bachaze ubungqukuva bazo. - Abafundi babonisa ukuba izinto ezahlukeneyo ziqengqeleka njani ukuhla zinyuka etafileni nezitena ezibini.	“ingxowa yokuphampatha” (ibhegi eyenziwe ngelaphu eneplastikhi emantla) Ngaphakathi ebhegini kukho: Iibhola ezinesayizi ezahlukeneyo,amaqam, iinkonkxa zesiselo ezingenanto, iisilinda, imilo yeplastikhi okanye imilo yesiciko sebhotile seplastikhi.	Usuku olunye

Iveki 5	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
3.1 **Indawo-bume, uku-fumana indawo, nembonakalo**	**Indawo-bume yezinto ezimbini okanye ezininzi ngokunxulumene nomfundiChaza izinto enye enokwakheka kuka 3-D ngokunxulumene nenye** - **Ngaphambili / ngasemva** **Ukufunda usebenzisa intshukumo yomzimba** Utitshala ukhetha abafundi ababini nesicengcelezo esibalayo: - Beka izitulo ezibini ngaphambili eklasini. - Abantwana ababini babonisa ngalo mba ngaphambili nangasemva ngokwemiyalelo katitshala. Umz o Sipho yima ngaphambili kwesitulo o Carl yima emva kesitulo - Xa sele iphumelele utitshala uphakamisa unotsheluza ze abafundi babonakalise isenzo besebenzisa izitulo zabo. o ”oku kungabonakaliswa kwakhona ngokusebenzisa abantwana abathathu. - Amy uma emva kuka Sipho, ze uCarl ame ngaphambili kuka Amy. - Utitshala unika abafundi idayisi elikhulu elinemifanekiso eyahlukileyo ebonisa “ umphambili nomva” ubhale emacaleni umz yima ngaphambili komnye onenwele ezinde, yima ngasemva kwalo mntu unxibe ibhulukhwe; hlala phambi komnye.njalo njalo. - Yenza badlale umdlalo bengamaqela bephoselana ngedayisi ze benze ude uye kuphela.	Izitulo Abafundi Oonotsheluza ababonisa isenzo eso ngaphambili nangasemva  	Usuku olu- 1

Iveki 5	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
3.2 **Izinto ezinokwakheka kuka-3-D**	**Thelekisa ukuba ziziphi izinto ezimbini ozinikiweyo ezi:** **nkulu kunenye ze ibe ncinci kunenye** • **Ukubethelela ingqiqo - inkulu (inkulwana)kunenye ze ibe ncinci kunenye (incinanana)** **Ukufunda usebenzisa intshukumo yomzimba** Yenza abafundi: - Benza imizimba yabo ibe mikhulu ngokutweza iingalo zabo ngaphezu kweentloko zabo. - Benza imizimba yabo ibe mincinane ngokugoba ze baziqothe. - Xela ukuba ingaba inja inkulu na kunempuku. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Sebenzisa rhoqo ubuncinane izinto ezimbini xa uthelekisa. - Thelekisa ubungakanani obahlukeneyo bebhloko efanayo umz iibhola, amaqhosha, itafile, iipleyiti, izitulo njalo njalo ukufumana ukuba yeyiphi into enkulu/incinci, enkudlwana/ encinanana, enkulu kakhulu/nencinci kakhulu.” - Yaba izakhiwo ngeebhloko ze abafundi bathelekise ezo zakhiwo zikhulu kakhulu nezo zincinci kakhulu. **Ukusebenzisa iimilo enzinokwakheka kuka 2-D okanye imifanekiso** - Thelekisa imifanekiso ebonisa izinto ezinkulu nezincinci nezinkudlwana nezincinanana. - Sebenzisa ukuqonda ubukhulu / nobuncinci kubugcisa boyilo.	Umfanekiso wempuku nowenja (qiniseka ukuba umfanekiso wenja mkhulu kunomfanekiso wekati) Izinto eklasini umz iibhloko, iibhola, iipleyiti, amaqhosha, amaso, izinti, iiphegi, iibhokisi, iinkonkxa, amabhastile, iziciko, amaqokobhe, iziciko zeebhotile, njalo njalo. Imifanekiso ebonisa ubukhulu nobuncinci	Usuku olu-1

Iveki 5	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
3.2 **Izinto ezinokwakheka kuka-3-D**	**Thelekisa ukuba kwezi zinto zimbini uzinikiweyo yeyiphi:** - Enkulu nencinci - Enkulu kunenye nencinci kunenye - Enkulu kakhulu ze ibe ncinci kakhulu **Ukufunda usebenzisa intshukumo yomzimba** Utitshala uzoba isangqa esantini, phantsi. - Abafundi bahamba emdeni wesangqa. Utitshala uzoba isangqa esikhulu kunesinye kumphandle kwesangqa - Abafundi bahamba emdeni wesangqa esikhulu kunesinye. - Utitshala ubuza imibuzo enje ngale: o “Sesiphi isangqa esincinici kakhulu?” o “Sesiphi isangqa esikhulu kakhulu?” o “Hamba kwisangqa esincinci” o “Hamba kwisangqa esikhulu” Utitshala uzoba isangqa esikhulu kakhulu ngaphandle kwesangqa. - Abafundi bahamba emdeni wesangqa esikhulu kakhulu, kananjalo - Utitshala ubuza imibuzo enje ngokuthi: o Sesiphi isangqa esikhulu kakhulu?” o “Sesiphi isangqa esincinci kakhulu?	izangqa ezikhulu nezincinci ezizotywe esantini okanye phantsi. 	Usuku olu-1

Iveki 5	**Umyinge wexesha lokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokhelwa ngutitshala imizuzu engekho ngaphantsi kwabashumi abathathu ngosuku (± 30), imizuzu engakho ngaphantsi kwesihlanu umsebenzi webathebatika ngeveki (± 5)**		
Isihloko	**Abanqaku angcaciso**	**Isihloko**	**Abanqaku angcaciso**
3.2 **Izinto ezinokwakheka kuka-3-D**	**Ukusebenzisa izinto eziphathekayo esinokwakheka kuka 3-D** Abafundi bahlela ze bathelekise izinto ezinobungakanani obahlukeneyo umz (inkulu kakhulu, incinci kakhulu) umz. - Isiciko esikhulu ukusuka kwesincinici. - Amacephe ukusuka kwamancinci - Iibhokisi ezinkulu ukusuka kwezincinci Lo msebenzi ungadluliselwa kwimidlalo yangaphandle (umdlalo wesanti nomdlalo wamanzi) apho abafundi Bangathelekisa izinto ze bathethe okokuba yeyiphi encinici kunenye/enkulu kunenye, enkulu nencinci Oku kunganxulunyaniswa nobugcisa bokubonwayo – mabenze umfanekiso owenziwe ngamaphepha besebenzisa izinto ezinkulu nezincinci. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Yenza abafundi: - Badlale imidlalo yamakhadi ze bachonge imifanekiso emincinci/ emikhulu/ emikhulu kakhulu. - Buza imibuzo enje: “Yeyiphi intlanzi yokuqala okanye yeyiphi intlanzi yokugqibela?” “Yeyiphi intlanzi ephakathi?”  - Gqithela koonobumba ukuze abafundi bakhumbule ukuba imifanekiso imele amagama. Akunyanzelekanga ukuba abafundi mabafunde oonobumba. 	Iibhloko zokwakha neebhola zobungakanani obahlukeneyo. Amaqhosha, amacephe, iibhokisi zamayeza, iibhokisi zezihlangu, amakhathoni obisi angenanto, iibhotile zamayeza ezingenanto, njalo njalo 	

Iveki 6	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.1 **Bala izinto**	**Qikelela uze ubale izinto zemihla ngemihla ngokuzithemba.** **Ukubala kwemihla ngemihla** - **Ngomlomo:** Ukubala ngokucengceleza ukusuka kwisi-1 ukuya kwisi-5. - Cula iingoma nezicengcelezo zamanani.	Iingoma nezicengcelezo zamanani.	Rhoqo ngosuku.
2.1 **Iipateni zejiyometri**	**Ukukopa nokwandisa iipateni usebenzisa ipateni yokubetha amalungu omzimba** **Ukufunda usebenzisa intshukumo yomzimba:** - Utitshala ubonisa ngepateni yokubetha amalungu omzimba kwaye abafundi kufuneka bakope ipateni, umzekelo, qhwaba qhwaba, ngxishi; qhwaba qhwaba, ngxishi;..... njalo njalo..... **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** Kopa ipateni enezinto, umzekelo: - Ukusebenzisa iindidi ezahlukeneyo zamagqabi. - Ukusebenzisa iimilo, umzekelo, isangqa, isangqa, unxantathu, isangqa, - Ukusebenzisa izinto, umzekelo, iphegi ebomvu, iphegi ebhlowu, iphegi etyheli, iphegi ebomvu,……	Abafundi.  Iimilo zeLogi. Iphegi -bhodi yazo.	Usuku olu-1.
	Ukusebenzisa imifanekiso /iimilo ezinokwakheka kuka 2-D. Yalela abafundi: - Ukuyila iipateni zabo ngamakhadi anemifanekiso, umzekelo, iintyatyambo, igqabi, igqabi, intyatyambo…… - Ukuyila iipateni zabo ngamakhadi anemibala, umzekelo, ubomvu, ubhlowu, ubomvu, ubomvu…… - Ngexesha lobugcisa boyilo yalela abafundi bashicilele iipateni basebenzise imisiko yeemilo.	Nika abafundi amakhadi anemifanekiso. Amakhadi amibala-bala. Utitshala unokusika iimilo kwisponji.	

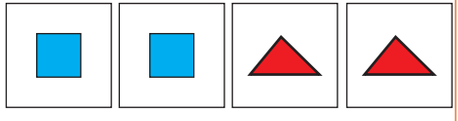
Iveki 6	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.3 **Izinto ezinokwakheka kuka 2-D**	**Qaphela, chonga uze uthiye isikwere.** **Fundisa ngesikwere.** Xa ufundisa ngesikwere okokuqala, izinto ezisetyenzisiweyo mazifane twatse (ngobungakanani, ngombala nemvakalo/noburhabaxa). Isikwere sinamacala amane. Oku kubizwa ngokuba sisikwere. **Ukufunda usebenzisa intshukumo yomzimba:** - Iklasi yonke ima ibe sisikwere. - Yalela abafundi beseso sikwere basenzileyo ngentambo bahambe kwikhaphethi besithi, “Ndihamba kwisikwere – kwicala elinye, kumacala amabini, amacala amathathu, amacala amane – onke amacala ayafana?” - Yalela amaqela abafundi benze izikwere ezincinane. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** - Utitshala ubonisa umahluko phakathi kwesangqa nesikwere ngokuphakamisa isiciko senkonkxa nethayile esisikwere. - Isiciko singqukuva ize ithayile ibe neencam neekona. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Utitshala uzoba erhangqele isiciko nethayile. - Isiciko simele isangqa nethayile imele isikwere. - Yalela abafundi bathreyise berhangqele isiciko nethayile besebenzisa iikhrayoni.	Abafundi. Intambo. Isiciko senkonkxa. Ithayile esisikwere. Iindidi ezahlukeneyo zeziciko nezinto ezimile ngokwesikwere. Amaphepha okubhalela. Iikhrayoni.	Usuku olu-1.
	Hlela izinto ezinokwakheka kuka 3-D kunye neemilo enokwakheka kuka 2-D okanye imifanekiso Yahlulahlula abafundi babe ngamaqela. Yalela abafundi: - Hlela iindidi ngeendidi zezinto ezinokwakheka kuka -3-D no2-D ezinikwe ngutitshala ngobungakanani nebala. - Bakhumbuze ngeemilo ngokubadlalisa imidlalo namakhadi emidlalo ngexesha lokudlala ngaphakathi.	Amakhadi eemilo. izinto ezinokwakheka kuka 3-D no2-D ezinjengeebhloko, iibhloko zeLego ezinjengemidlalo yokubakhumbuza ngeemilo ezifana nokuba “Yintoni ekwisikwere?”	
3.2 **Izinto ezinokwakheka kuka 3-D**	**Qaphela, khetha uze uxele** • **izinto ezinokwakheka kuka 3-D ezitshebelezayo** Fundisa ngezinto ezitshebelezayo. - Nika abafundi iindidi ezahlukeneyo zezinto ezahlukeneyo ezinokwakheka kuka 3-D kunye no -2-D njengeebhloko, iibhokisi, iibhola, njalo njalo. - Yalela abafundi balinganise ngokudlala ngokubonisa ukuba ziziphi izinto ezitshibilizayo nokuba ziziphi eziqengqelekayo.	Iibhloko. Iibhola. Iibhokisi. Isilayidi / itheyibhile eneebhloko.	Usuku olu-1

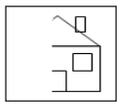
Iveki 6	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
	- Abafundi banokusebenzisa isitshebelezi kwindawo yokudlala okanye utitshala unokusebenzisa itafile ukwenza indawo ehlayo ngokubeka iibhloko ezi-2 ngaphantsi kwazo. - Ingaba zikho ezinye izinto ezitshibilika ngokunyukayo? - Ziziphi izinto ezitshibilikela ngasezantsi? - Kutheni ezi zinto zikwazi ukutshibilika?		
3-1 **Indawo-bume, ukufumana indawo nembonakalo**	**Chaza izinto ezinokwakheka kuka 3-D ngokunxulumene nenye** • **Fundisa la magama: ngaphakathi / ngaphantsi, ngasezantsi / ngaphezulu.** **Ukufunda usebenzisa intshukumo yomzimba:** - Umfundi ngamnye uhlala esitulweni sakhe. - Abafundi bamamela imiyalelo katitshala baze balandele eli xa imisebenzi eyenziwayo, umzekelo, hlala esitulweni, lala phantsi kwesitulo. - Chopha phezu kwesitulo. Hlala phantsi kwetafile. - Beka izandla zakho entloko. - Beka izandla zakho phantsi kweenyawo. - Beka ibhinbhegi phantsi kwekhwapha. - Chopha phezu kwebhinbhegi. - Beka ihupu phantsi kwamadolo akho. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Yalela abafundi ababini babambe intambo yokutsiba baze abanye beklasi barhubuluze phantsi kwentambo. - Khangela into phantsi kwekhaphethi / kwetafile / ibhokisi njalo njalo. **Sebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso.** - Utitshala unika abafundi iindidi zemifanekiso engamagama angala: ngaphantsi, ngaphakathi nangaphezulu abonisiweyo, umzekelo, umntu okhwele ihashe, usana olulele phantsi kwengubo, njalo njalo. Yalela abafundi: - Chonga amagama angala: ngaphantsi, ngaphezulu, nangaphakathi emifanekisweni.	 Isitulo somfundi ngamnye ngaphezu kwetafile.  ngaphantsi / ngasezantsi	Usuku olu-1

Iveki 6	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
4.1 **Ixesha**	**Chaza ixesha losuku ngokosuku nobusuku / ukukhanya nobumnyama.** • **Fundisa ngamagama angala: "usuku / ubusuku", "ukukhanya / ubumnyama".** Nxulumanisa oku nezihloko zoLwazi olusisiSeko kwiZakhono zoBomi. **Ukufunda usebenzisa intshukumo yomzimba:** - Ziqhelanise nobumnyama ngokuhlala phantsi kwetafile nezitulo ezogqunywe ngengubo. - Yenza mnyama iklasi ngokuvala imikhusane nokucima izibane. - Abafundi bathetha ngamava abo kumnyama eklasini naxa kukhanya. - Khupha ithotshi ukhanyise phantsi kwengubo. - Thetha ngemisebenzi eyenzekayo ebusuku nasemini. **Sebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso.** - Utitshala wenza iphowusta yelanga nenyanga aze akhuphe imifanekiso ebonisa okwenzekayo ngexesha lasemini nasebusuku. - Abafundi mababeke imifanekiso phantsi kwelanga kunye / okanye kwenyanga.	Izitulo neengubo. Ithotshi.  Ipowusta yemini nobusuku. Imifanekiso engemisebenzi yexesha lasemini nexesha lasebusuku. 	Usuku olu-1

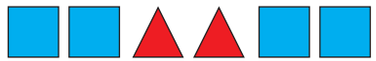
Iveki 7	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.3 **Izinto ezinokwakheka kuka 2-D**	**Nakana, khetha uze uxele iimilo ezinokwakheka kuka 2-D eklasini** • **Fundisa ngeephazili uze unike isikhokelo ngendlela yokuzenza.** - Xoxa ngephazili yemifanekiso unike ingqwalasela eyodwa kumbala, abantu / izilwanyana, izinto, indawo yokuma kwabantu / kwezilwanyana nezinto. - Ukwalatha, ukuqaphela nokutshatisa iindidi ezahlukeneyo zezicwili zeephazili, umzekelo o izicwili zeekona. o izicwili ezinecala elinye elingqalileyo.  **Uyakha njani ipazili** - Pakisha zonke izicwili zeepazili ngokuzijongisa phezulu - Chonga iikona zezicwili zeepazili uze utshatise umbala,into njl-njl nazo ngeekona zepazili - Yakha isakhelo esinekona ezi-4 usebenzisa zonke izcwili ezinecala elinye - Ukuba umfundi uyasokola unokwakha ipazili phezu komfanekiso abawunikiweyo - Zonke iipazili kufuneka zigqityiwe phambi kokuba uzipakishe	Iindidi zeephazili – ubuncinane izicwili ezi-6.	Usuku olu-1

Iveki 7	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.1 **Indawo-bume,ukufumana indawo nembonakalo**	**Chaza into enye enokwakheka kuka 3-D ngokunxulumene nomfundi.** - ngaphakathi / ngaphandle • **Indawo ezimi kuyo izinto ezimbini okanye ngaphezulu ngokunxulumene nomfundi.** - **ngaphakathi / ngaphandle** **Ukufunda usebenzisa intshukumo yomzimba:** - Utitshala usebenzisa iteyiphu yephepha okanye intambo yokutsiba ukwenza imigca emibini emgangathweni. - Abafundi bema bonke kwicala elinye aze utitshala akhwaze, “emlanjeni (Bonke abafundi kufuneka batsibele phakathi kwemigca emibini, baze bakhwaze “ngaphandle komlambo.” Abafundi mabatsibele bonke kwicala ngalinye lemigca emibini. - Abafundi aBangawulandeliyo umyalelo ngokuchanekileyo bayaphuma kwaye abaqhubeki nokudlala.	Umdlalo: Emlanjeni (phakathi kwemigca emibini), ngaphandle komlambo (ngaphandle kwemigca emibini). Iintambo ezi-2 zokutsiba.	Usuku olu-1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D: Yalela abafundi: - Beme qelele kancinane nebhaskithi / ibhakethi. - Baphose ibhinbhegi (*bhinbhegi*) ebhaskithini. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso.** - Abafundi bazoba umfanekiso obonisa ngongaphakathi nongaphandle.	Iemerana okanye ibhaskithi. Iphepha neekhrayoni.	

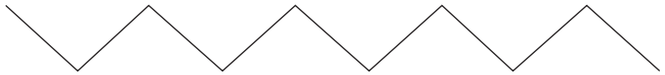
Iveki 7	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.1 **Indawo-bume,ukufumana indawo kunye nembonakalo**	• **Indawo ezime kuyo izinto ezimbini okanye ngaphezulu ngokunxulumene nomfundi.** **Ngaphezulu / ngaphakathi / ngaphantsi** Ukufunda usebenzisa intshukumo yomzimba: Yalela abafundi balandele imiyalelo: - Beka ibhloko ebomvu ngaphezu kwentloko yomhlobo wakho. - Beka ibhloko etyheli ngaphantsi / ngasezantsi kwetafile. - Thwala ibhloko entloko uze ukhwele etafileni. - Rhubuluza phantsi kwetafile uvale amehlo. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** Yalela abafundi: - Pakisha oonxantathu ngaphezu kwabanye. - Pakisha izikwere ezibhlowu ngaphezu kwezinye. - Beka isangqa esibomvu ngaphantsi kwesikwere esityheli. - Beka isangqa esityheli nonxantathu obomvu ngaphantsi / ngasezantsi kwesikwere esibhlowu. **Ukusebenzisa izinto ezinokwakheka kuka 2-D okanye imifanekiso.** - Utitshala wenza amakhadi anemifanekiso kunye namakhadi aneemilo. - Abafundi mababeke iimilo ngaphezu / ngaphantsi / ngasezantsi komfanekiso ngokuyalelwa ngutitshala. Umzekelo, beka isikwere esibhlowu ngaphezu kwebhaskithi yeziqhamo.	Iibhloko zokwakha / iibhloko zeyunifiksi (unifix blocks). Iimilo zeLogi (logi shapes). Imifanekiso eyahlukeneyo.  Amakhadi eemilo. 	Usuku olu-1.

Iveki 7	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.1 **Ulingano-macala**	• **Bethelela kulwazi ngamacala alinganayo omzimba wakhe.** **Ukufunda usebenzisa intshukumo yomzimba:** Yalela abafundi: - Baxela amalungu emizimba yabo. - Mabacule nayiphi ingoma malunga nomzimba. Utitshala ubonisa abafundi ulingano macala (isimetri) ngokuxhoma intambo phambi komfundi. - Abafundi kufanele bazi ukuba imizimba yabo yahlulwe yangamacala amabini.  Utitshala ucacisa ngendlela umzimba owahlulwe ngayo ube ngamacala amabini kuze kubekho umgca ophakathi. - Yonke into anayo umntu inezinto ezimbini kumacala amabini omzimba, umzekelo, amehlo, iindlebe, iingalo, imilenze, njalo njalo. - Yonke into anayo umntu inento enye ebekwe kumgca ophakathi, umzekelo, impumlo, umlomo, umbhono. Ukuqhuba nokufundisa ngolingano-macala (ngesimetri), yalela abafundi: - Matsha, uphakamise amadolo phezulu. - Matsha ‘okwejoni elomeleleyo lenkonkxa.’ - Nqumleza iingalo, nqumleza imilenze elixa umatshayo. - Nxulumanisa oku nobuGcisa baseqongeni beZakhono zoBomi. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso.** - Zoba imifanekiso engagqibelelanga ephepheni uze uyalele abafundi bagqibezele umfanekiso.	Ingoma: Intloko namagxa, sifuba nesinqe, madolo nenzwane.” Intambo yokubonisa. Imizimba yabafundi. Imifanekiso engagqitywanga.  	Usuku olu-1.

Iveki 7	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.1 **Indawo-bume,ukufumana indawo nembonakalo**	• **Iindawo ezimi kuyo izinto ezimbini okanye ngaphezulu ngokunxulumene nomfundi.** - **Phezulu nangasezantsi.** **Ukufunda usebenzisa intshukumo yomzimba:** Yalela abafundi: - Babonise ngamagama “phezulu” “phantsi” ngokushukumisa imizimba yabo iye phantsi naphantsi ngokomyalelo katitshala. - Bakhwele kwizitephsi ezibini eli xa ubala inani lazo. - Mabehle kwizitephsi ezibini bebala. - Bakhwela “phezulu” “phantsi” kwisixhobo sokukhwela esiphandle. - Bakhwela “phezulu” “phantsi” kwintambo yokukhwela ileli xa isikolo sinayo. - Bajonga phezulu naphantsi. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso.** - Utitshala unika abafundi iindidi ezahlukeneyo zemifanekiso malunga nophezulu nophantsi njengoko kubonisiwe, umzekelo, umntu ukhwela phezulu entabeni, ibhaloni yomoya iya phezulu emoyeni ize ihle iye ezantsi, umntu uhla kwizitephsi, njalo njalo. Yalela abafundi: o Balathe uphezulu naphantsi kwimifanekiso.	Cula ingoma. Sebenzisa izitephsi ezikhoyo esikolweni. Ijungle gym (isixhobo sokugwencela). Ileli yentambo yokukhwela. Imifanekiso ebonisa uphezulu nophantsi, umzekelo izitephsi. 	Usuku olu-1.

Iveki 8	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.4 **Ulingano - macala**	• **Ukunqumla umgca ophakathi oqukwe ekubaleni.** **Ukufunda usebenzisa intshukumo yomzimba:** Yalela abafundi: - Bayadanisa baze baxhume ngokwesingqisho elixa bebala. - Bamise bajongane baze bamane benqamleza beqhwaba (ngasekhohlo kubafundi abasekhohlo) becula ingoma engamanani / isingqisho. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** Yalela abafundi: - Baphosela ugxa wabo ibhola xa bebala. - Bahamba kwintambo egosogoso becula ingoma, umzekelo, “Indlovu enye encinane encikeleleyo.” - Bakhabelana ibhola. Umsebenzi ongasentla unokunxulunyaniswa neZakhono zoBomi.	Abafundi. Iingoma nezicengcelezo zamanani.  Ibhola, intambo.	Usuku olu-1.
2.1 **Iipateni zejiyometri**	• **Wenza iipateni zakhe.** **Ukufunda usebenzisa intshukumo yomzimba:** Yalela abafundi bayile ipateni besebenzisa: - Imizimba yabo, umzekelo, intombazana enye enelokhwe, amakhwenkwe amabini aneebhulukhwe. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** - Usebenzisa iimilo ezibomvu nezibhlowu, umzekelo, izikwere ezibhlowu ezi-2, oonxantathu ababomvu aba-2, izikwere ezibhlowu ezi-2….. - Sebenzisa ipateni kwimisebenzi yobugcisa ngokusebenzisa ipeyinti ebomvu nebhlowu eneziciko zebhotile.	Iimilo zeplastikhi eziBomvu neziBhlowu.  Usebenzisa iziciko zeebhotile nepeyinti ebomvu nebhlowu.  bomvu luhlaza bomvu luhlaza bomvu luhlaza	Usuku olu-1.
	Sebenzisa iimilo ezinokwakheka kuka 2-D usebenzisa imibala ephambili. Yalela abafundi: - Basebenzise oobhontsi ukushicilela umbala ngepeyinti, umzekelo, luhlaza, orenji, luhlaza……kunye nencam yamaphepha. **(Umsebenzi unokwenziwa ngobuGcisa obubonwayo).**	U-A4 Paper. Ipeyinti eluhlaza ne-orenji okanye nayiphi eminye imibala onayo.	

Iveki 8	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.2 **Izinto ezinokwakheka kuka 3-D**	**Qaphela, khetha uze uxele izinto ezinokwakheka kuka 3-D.** • **Bethelela kwizinto eziqengqelekayo.** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** Yalela abafundi: - Badlala ngeebhotile zeplastikhi, iinkonkxa, iibhola, i-orenji, njalo njalo baze baqwalasele okwenzekayo xa beziqengqa. Utitshala uyabuza: - Ziziphi iibhloko kwikona yeebhloko ezinokuqengqeleka? - Iibhloko azikwazi kuqengqeleka kuba zinamacala amathandathu angqalileyo kuphela. - Qengqa izinto ezahlukeneyo uze ubone ukuba yeyiphi enokuqengqeleka ikwa yeyiphi engakwaziyo. - Abafundi kufanele bazi ukuba izinto ezingqukuva zinokuqengqeleka.	libhotile zeplastikhi. libhloko. Iibhloko zeLego. Iinkonkxa, iikomityi zeplastikhi, iingqukumba zamaphepha angasese, amakhandlela, i-orenji, iibhola, njalo njalo.	Usuku olu-1.
3.1 **Indawo-bume, ukufumana indawo nembonakalo**	• **Phuhlisa ulwazi ngezalathiso ngokufundisa amagama okwalatha “ngaphambili / ngasemva”, “umphambili / umva”.** **Ukufunda usebenzisa intshukumo yomzimba:** Yalela abafundi: Balandela izalathiso zikatitshala (uzimele kunye / okanye njengelungu leqela) nokuzibeka kwabo eklasini umzekelo, - Mabeme “ngaphambili” eklasini. (thathela ingqalelo ngomphambili waseklasini apho ucango lukhoyo). - Mabeme “ngasemva” eklasini. - Mabaye phambili nasemva. - Mabarhubuluze baye phambili nasemva. - Mabaye phambili nasemva.	Abafundi.	Usuku olu-1.

Iveki 8	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.1 **Indawo-bume, ukufumana indawo nembonakalo**	Utitshala uzoba ipateni emgangathweni ngetshokhwe okanye emgangathweni, umzekelo,  okanye  Yalela abafundi: - Bayahamba / okanye barhubuluze emigceni yepateni. - Beka isicwili sephepha elibomvu kwiikona zimele irobhothi. Xa abafundi besezikoneni zabo kufuneka baguqule umzimba wonke ukubaqhelanisa nezalathiso.	Izotywe phantsi. Iphepha elibomvu.	Usuku olu-1.
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D: Yalela abafundi: - Mabenze indledlana ngeebhloko zokwakha. - Mabatyhale ithoyi yemoto iye phambili nasemva ibe “kwindlela” eyakhiwe ngeebhloko. - Mabatyhale ithoyi yemoto ngokuyisa kwelinye icala nokuyisa kwelinye icala “lendlela” eyakhiwe ngokweebhloko.	Iibhloko zokwakha.	

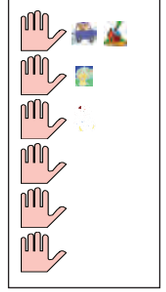
Iveki 8	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
5.1 **Qokelela ,uhlele izinto** **5.2** **Bonisa ingqokelela yezinto ezihleliweyo.** **5.3** **Ukuxoxa nokunika ingxelo ngengqokelela ehleliweyo yezinto**	• **Fundisa ngokuSetyenziswa kolwazi (besebenzisa imizimba yabo) ngokuqokelela izinto eklasini okanye kummandla wokusingqongileyo ngokweempawu ezixeliweyo, umzekelo:** **Ukufunda usebenzisa intshukumo yomzimba:** Yahlulahlula abafundi babe ngamaqela. - Kwiqela ngalinye yalela onke amakhwenkwe eme emgceni uze uyalele onke amantombazana eme emgceni kufutshane nasemakhwenkweni. - Yalela abafundi babale inani lamakhwenkwe nenani lamantombazana kwiqela ngalinye. - Ngoku ungakwazi ukugqibezela “igrafu yomzimba” yamakhwenkwe namantombazana ngokweqela ngalinye. **Into ephathekayo usebenzisa izinto ezinokwakheka kuka 3-D:** - Abafundi banokusebenzisa ulwazi olungasentla ukuphuhlisa igrafu yezinto ezinokwakheka kuka 3-D ngokusebenzisa iibhloko / iimilo, njalo njalo olumele umfundi ngamnye. **Ukufunda nokubonisa igrafu.** **Sebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso.** - Abafundi benza igrafu ngokusebenzisa udongwe ukwenza ibholana encinane emele indlela abatolika ngayo umsebenzi wangaphambili. - Nika abafundi iphepha elinomfanekiso wentombazana nenkwenkwe ngaphezu kwephepha ngalinye lomfundi. - Yalela abafundi baqengqe iibhola ezimele inani lamantombazana namakhwenkwe kwiqela labo. - Abafundi babeka inani leebhola ngaphantsi komfanekiso ochongiweyo.	Abafundi abeme kwimiqolo emibini. Iintombi / Amakhwenkwe □ □ □ / □ □ □ 2 / 3 Udongwe. U-A4 Paper.	Usuku olu-1.

Iveki ye- 9	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.2 **Izinto ezinokwakheka kuka 3-D**	• **Ukunakana nokunokuphononga izinto ezitshebelezayo neziqengqelekayo.** Utitshala ubamba ibhola aze ayibhampise emgangathweni. Uyayiqengqa emgangathweni. Emva koko utitshala uthabatha ibhokisi enze kwangolo hlobo lwangaphambili. Utitshala uyabuza: - Yeyiphi into enokuqengqeleka? - Kutheni ibhokisi ingakwazi ukuqengqeleka? - Yeyiphi into enokutshebeleza? Utitshala ubonisa abafundi ukuba ibhokisi inamacala amane (iikona) kwaye ayikwazi kuqengqeleka, kodwa ibhola ayinazo iikona kwaye iyakwazi ukuqengqeleka. - Bakhuthaze abafundi bakhangele izinto eklasini ezinokuqengqeleka nokutshebeleza. - Qonda ukuba abafundi bayakwazi ukukhangela izinto ezinokuqengqeleka nezinokutshebeleza.	 **Ibhola**  **Ibhokisi**	Usuku olu-1.

Iveki ye- 9	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.3 **Izinto ezinokwakheka kuka 2-D**	**Ukunakana, ukuchonga nokuxela iimilo ezinokwakheka kuka 2-D eklasini nakwimifanekiso.** - **Isangqa** **Ukufunda usebenzisa intshukumo yomzimba:** Yalela abafundi: - Benza isangqa besebenzisa iminwe. - Benza isangqa besebenzisa izandla zozibini. - Bahlala ekhaphethini, benze isangqa eli xa bebambene ngezandla. - Bahamba kwisangqa esikhulu, esenziwe ngomsonto ekhaphethini. - Badlala umdlalo apho abafundi bahlala kwisangqa baze bacule ingoma. o Umfundi omnye uma ngaphandle kwesangqa aze abaleke esijikeleza ephethe ibhola ngezandla zakhe. o Umfundi ukhetha ukubeka ibhola ngasemva kwaye nabaphi abafundi abahleli kwisangqa. o Umfundi okhethiweyo kufuneka aphakamise ibhola aze ayiphose komnye umfundi, eli xa abalekayo ejikeleza isangqa kwakhona andule ahlale kwisikhewu esikhoyo. o Xa ngaba ibhola ibethe umfundi obalekayo, kufuneka ahambe aye kuhlala phakathi esangqeni uze umdlalo uqhubeke. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** Yalela abafundi: - Bakhangela izinto ezingqukuva eklasini. - Bakhangela iimilo ezimele isangqa. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso.** - Utitshala uxela izinto baze abafundi bakhethe ukuba ziziphi na izinto ezingqukuva, umzekelo, i-orenji, i-apile, itafile, ibhola, imayibhile, incwadi, ibhokisi, njalo njalo.	Abafundi. Umtya. Ibhola ekhatywayo, ibhola yentenetya, ibhola yegalufa, i-apile, i-orenji, iihupu, njalo njalo. I-orenji, i-apile, itafile, ibhola, imayibhile, incwadi, ibhokisi.	Usuku olu-1.

Iveki ye- 9	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.1 **Indawo –bume, ukufumana indawo nembonakalo.**	**Indawo yento enye okanye ezimbini ngokunxulumene Ukufundisa ukufutshane / ngaphakathi – ngokudibene nombala.** • **Ingqiqo – ecaleni kwe/phakathi: dibanisa nombala** **Utitshala ubiza abafundi abathathu.** Ucacisa ngo-kufutshane no-ngaphakathi ngokubeka abafundi ngokwahlukeneyo ngokuthi: - UCraig ume ecaleni kukaSoso. - UMelinda umi phakathi kukaCraig noSoso. Umsebenzi unokwenziwa kwakhona nabanye abafundi. Utitshala unika abafundi iibhloko zokwakha ezimibala yahlukeneyo aze abanike imiyalelo: - Babeka ibhloko ebomvu kufutshane nebhloko etyheli. - Babeka ibhloko ebhlowu phakathi kwebomvu nebhloko etyheli. **Into ephathekayo usebenzisa izinto ezi-3:** Ukusebenzisa iibhinbhegi kwimibala eyahlukeneyo (ebomvu, ebhlowu, etyheli, eluhlaza), nika abafundi umyalelo: - Mababeke ibhinbhegi ebhlowu kufutshane nebhinbhegi etyheli. - Mababeke ibhinbhegi ebomvu phakathi kwebhinbhegi etyheli nebhlowu. Lo msebenzi unokudityaniswa neZakhono zoBomi.	iibhloko ezimibala-bala. iibhinbhegi ezimibala-bala.	Usuku olu-1.

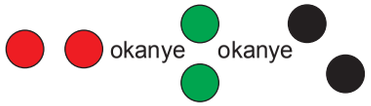
Iveki ye- 9	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.2 **Izinto ezinokwakheka kuka 3-D**	• **Cwangcisa nokuba yeyiphi ingqokelela yezinto ezimbini ozinikiweyo ukusukela kweyona incinane ukuya kweyona inkulu.** **Ukufunda usebenzisa intshukumo yomzimba** Nika abafundi udongwe uze ubayalele benze iibhola ngodongwe. - Kumaqela abo babeka iibhola zabo zodongwe ukusukela kweyona incinane ukuya kweyona inkulu kakhulu. **Into ephathekayo usebenzisa izinto ezinokwakheka kuka 3-D:** - Ilungu leqela ngalinye kufuneka lifumane into eklasini. - Bayalele abafundi bacwangcise izinto ngokobuncinane ukuya kwenkulu ngokwamaqela abo ohlukeneyo. Utitshala unika iqela ngalinye iidayrektri zeefowuni ezindala. Yalela abafundi: - Mabakrazule iphepha kwidayrektri baze balishwabanise iphepha libe yibhola kumaqela abo. - Abafundi mabathelekise ukuba yeyiphi na ibhola enkulu kakhulu kwaye iyeyiphi encinane kakhulu. **Izinto ezimilo ezinokwakheka kuka 2-D okanye imifanekiso.** - Nika abafundi iphepha elinemifanekiso yezinto ezinkulu nezincinane. - Abafundi banokufakela imibala kwizinto ezinkulu barhangqele izinto ezincinane.	Udongwe lokudlala. Naziphi izinto eziseklasini. Idayrektri yefowni. Iphepha elingu-A4 elinemifanekiso.	Usuku olu-1.

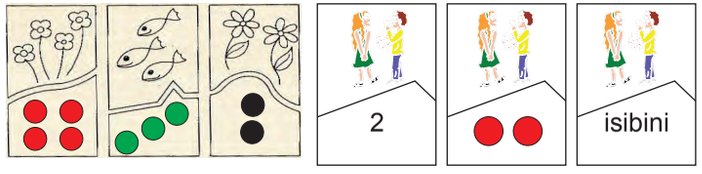
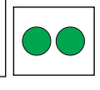
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Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
4.2 **Ubude**	• **Thelekisa uze ucwangcise izinto ngokuziphathekayo usebenzisa isigama esifanelekileyo ukuchaza ubude.** - **Ende / emfutshane kakhulu** - **Eyona inde / eyona imfutshane** Ukufunda usebenzisa intshukumo yomzimba: - Utitshala ubiza abafundi aba-4 aze abuze iklasi ukuba imncedise ukucwangcisa abafundi ukusukela koyena mde ukuya koyena mfutshane. - Bayalele abafundi bazicwangcise ngokwabo kumaqela abo ukusukela koyena **mde** ukuya koyena mfundi **mfutshane.** - Umfundi omnye woyame eludongeni ngelixa elinye ilungu leqela lithatha umlinganiselo wobude esebenzisa izandla zabo.		Usuku olu-1.
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Utitshala ubeka iindidi zezinto kwitheyibhile nganye yeqela njengeerula, iipensile, iikhrayoni, iirabha, njalo njalo. - **Hlela** zonke izinto **ezinde** kunye nazo zonke ezimfutshane kunye. - Abafundi mabahlele izinto ukusuka kweyona **inde** ukuya kweyona **imfutshane** **Itshati yobude.** - Utitshala unetshati yobude exhonywe eludongweni ukuze akwazi ukubonisa ubude bomntwana ngamnye. - Sebenzisa amakhadi aneesimboli zabafundi ukubonisa ubude bomfundi ngamnye kwitshati yobude. - Utitshala kunye nabafundi bafikelela kwisigqibo sokuba uSipho uzizandla ezintandathu ubude aze uAbby abe zizandla ezintlanu kuphela kuba mfutshane.	Iirula, iikhrayoni, iipensile, irabha, njalo njalo. **USipho unobude obuzizandla ezi-6.** U-Abby unobude obuzizandla ezi-5. **Itshati yobude** 	

IVEKI YE-10	**Sebenzisa iveki 10 ukuqwalasela ubuthathaka kunye / okanye nezithintelo ekufundeni.**	
Inkalo yomxholo	**Isihloko**	**Imilinganiselo yokuHlola**
Amanani, ii-opareyshini noLwalamano.	**1.1** **Bala izinto**	Ukuqikelela nokubala ngokucengceleza ukuya kutsho kwisi-5 (Iingoma nezingqisho zamanani eziqukwe ukuphuhlisa amanani).
		Nakana amanani kwimeko oqhelekileyo, umzekelo, ubudala, irejista.
		Qonda amanani ahambelanayo (Itshati ngexesha lokutya).
		Khetha imifanekiso yamanani kunye namakhadi anamachokoza abandakanya inani unye
		Yazi isimboli yenani u-1.
		Nakana igama lenani unye.
	1.6 **Ubuchule/iindlela zokusombulula iingxaki**	Sebenzisa izixhobo eziphathekayo.
		Cacisa indlela ocinga ngayo ngamagama kunye nemizobo okanye izinto eziphathekayo.
Iipateni nee-fankshini ne-Aljibra	**2.1** **Iipateni zejiyometri**	Chonga iipateni kwizinto ezisingqongileyo.
		Kopa, yandisa, yenza iipateni zakho.
Isithuba nemilo (Ijiyometri).	**3.1.Indawo-bume,ukufumana indawo nembonakalo**	Yazi: ngaphambili kwe/nasemva kwe
		Yazi: phezulu kwe,ngaphantsi kwe
		Yazi: ngaphakathi,ngaphandle
		Yazi:phezulu,phantsi
	3.2 Izinto ezinokwakheka kuka 3-D ne 3.3 iimilo ezinokwakheka kuka 2-D	Qonda iingqiqo: ngaphambili,ngasemva
		Nakana, khetha,uxele iibhola.
		Nakana, khetha,uxele iibhola iibhokisi.
		Nakana, khetha,uxele isimboli yakhe, isimboli yogxa wakhe negama leklasi.
		Yakha iphazili ezi-6.
		Ukubonisa isakhono sokukwazi ukwahlula phakathi kwezinto “ezisemva” “neziphambili”.
		Chonga unakane isangqa.
		Chonga unakane unxantathu.
		Chonga unakane isikwere.
		Thelekisa ukuba yeyiphi ingqokelela enikiweyo yezinto ezimbini ezinkudlwana, ezincinanana, ezinkulu kakhulu nezincinane kakhulu.
		Hlela izinto:
		Ubungakanani – inkulu nencinci.
		Umbala – imibala engundoqo (obomvu, otyheli, obhlowu).
		Imilo – isangqa, unxantathu nesikwere.
		Izinto eziqengqelekayo.
		Izinto ezitshebelezayo.

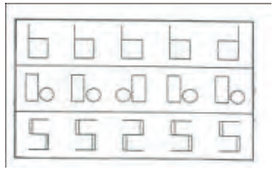
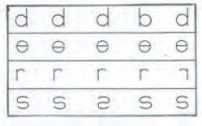
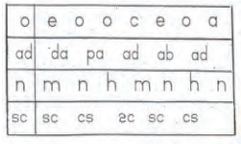
Inkalo yomxholo	Isihloko	Imilinganiselo yokuHlola
Isithuba nemilo (Ijiyometri).	**3.4** **Ulingano-macala**	Qaphela umgca wesimetri kuye.
Umlinganiselo.	**4.1** **Ixesha**	Ukusebenzisa amagama afana nala: imini, ubusuku, ukukhanya nobumnyama, kusasa, emva kwemini, ngokuhlwa ukuchaza ixesha losuku.
		Cwangcisa iziganeko eziphindelelayo ebomini bakhe bemihla ngemihla (inkqubo yemihla ngemihla).
		Bonisa nokuqonda iintsuku zeveki, amaxesha onyaka nemo-zulu.
		Yazi usuku lwakho lokuzalwa.
	4.2 **Ubude**	Yahlula phakathi kobude, ubudana, ubude kakhulu, futshane, futshanana, futshane kakhulu (itshati yobude).
Ukusebenza ngolwazi oluqokelelweyo.	**5.1.** **Qokelela uhlele izinto**	Akwazi ukuqokelela, ukuhlela, ukuzoba, ukufunda nokuhlalutya izinto ngokophawu olunye.
	5.2 . **Bonisa ingqokelela yezinto ezihleliweyo**	
	5.3. **Xoxa uze unike ingxelo ngengqokelela yezinto ezihleliweyo**	

Iveki ye- 11	**Ixesha lokufundisa elicetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.1 **Bala izinto**	• **Fundisa intsingiselo yenani elingu-2.** **Ngomlomo:** Ukubala izinto zemihla ngemihla ukuya kutsho kwi -2. Ukubala ukuya phambili nasemva ukuya kutsho kwi -2. Ukubala ngokucengceleza ku -1 ukuya kwi- 7. **Bethelela "ubuninzi" "nombalwa".** Qhwaba izandla kaninzi…..YIMA. Qhwaba izandla amatyeli amafutshane. Utitshala uqhwaba amaxesha ama- 2.	Imifanekiso emibini yeentaka yengoma yokubala - "Iintaka ezimbini……"	Usuku olu-1.
	Ukufunda usebenzisa intshukumo yomzimba: Yalela abafundi: - Biza abafundi aba- 2 ngaphambili. Babale. - Bala izitulo ezi- 2, iitafile, njalo njalo. - Ukwalatha izibini zamalungu omzimba njengamehlo, iindlebe, izandla, iinyawo, amadolo, amagxa, njalo njalo. - Sebenzisa umzimba, umzekelo, baqhwaba izandla kabini, bashukumisa iintloko kabini, ukunyathela emgangathweni kabini okanye batsibe kabini, njalo njalo. - Phakamisa iminwe emi- 2, izandla ezi- 2, iinyawo ezi-2.	Imizimba yabafundi.	

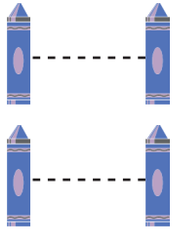
Iveki ye- 11	**Ixesha lokufundisa elicetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.1 **Bala izinto**	**Sebenzisa izinto ezinokwakheka kuka 3-D:** Yalela abafundi: - Ukwalatha isibini sezinto ezifanayo eklasini, umzekelo, izihlangu ezibini, iikhrayoni, njalo njalo. - Ukuphuhlisa ulwazi ngolondolozo lwamanani ngokuyalela abafundi bapakishe izinto zokubala ezimbini okanye naziphi izinto ngeendlela ezahlukeneyo, umzekelo,  Xa ubala, inani lezinto alichatshazelwa bubungakanani, okanye indawo elimi kuyo, okanye nokuba zezodidi olufanayo. Umzekelo: - Ukucwangcisa amaqhosha ama- 2, iipensile ezi- 2, iihupu ezi- 2, abafundi aba- 2, njalo njalo. - Zibale ngendlela eyahlukileyo, umzekelo, zibale uzisakaze, ziqumbanise, zibe semgceni.	Izinto zokubala ezi- 2 okanye izinto ezi- 2 zomfundi ngamnye.	

Iveki ye- 11	**Ixesha lokufundisa elicetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.3 **Iisimboli zamanani namagama amanani**	• **Ukwazi ngesimboli yenani nokunakana igama lenani elibandakanya inani elingu- 2.** **Sebenzisa limilo enokwakheka kuka 2-D.** Yalela abafundi: - Ukutshatisa amakhadi emifanekiso anemifanekiso emi-2 kuwo namakhadi anamachokoza amabini kuwo. - Bonisa oonotsheluza nomfanekiso wenani lezinto ezikhethiweyo , umzekelo, ipere yezihlangu, iikhrayoni ezimbini, njalo njalo. - Yalela abafundi bakhangele inani elifanayo lezinto eklasini. - Ukuchonga oonotsheluza abanamanani emifanekiso awohlukileyo. - Ukuchonga oonotsheluza abanesimboli yenani elingu- 2. - Ukunakana oonotsheluza abanegama lenani - Ukunxibelelanisa isimboli yeanani elingu-2 kunye nenani lezinto nenani lamachokoza. - Ukunxibelelanisa igama lenani kunye nekhadi lesimboli yenani elingu- 2 inani lezinto kunye nenani lamachokoza. - Dibanisa unotsheluza onenani elingu -1 uze uyalele abafundi bachonge amanani u- 1 no- 2. - Yenza iiphazili zamanani uze uyalele abafundi bazitshatise, umzekelo, 	Beka ngokwamanani oonotsheluza bamakhadi ngezinto ezimbini. Izinto eklasini nakummandla osingqongileyo. **Ifoto yezinto e-2**  Unotsheluza onemifanekiso emibini, amachokoza, isimboli yenani negama lenani. **Ifoto yezinto ezi- 2**  **2** **isibini**	Usuku olu-1.

Iveki ye- 11	Ixesha lokufundisa elicetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.2 **Izinto ezinokwakheka kuka 3-D kunye**	• **Chaza, hlela uze uthelekise izinto ezinokwakheka kuka 3-D no2-D ngokokufana nokwahluka kwazo** **Izinto ezifanayo nezahlukeneyo.** Ukufunda usebenzisa intshukumo yomzimba: - Khetha amantombazana amabini usebenzisa isingqisho sokubala. - Abanye abafundi balatha indlela afana ngayo amantombazana amabini? - Khetha inkwenkwe nentombazana usebenzisa isingqisho sokubala. - Abanye abafundi balatha indlela intombazana nenkwenkwe eyahluke ngayo. - Bengababini omnye umfundi “uma” ngendlela ethile aze omnye akope le ndlela “eme” ngayo, umzekelo, - omnye umfundi uma ubeka izandla entloko yakhe esinye emlenzeni. Omnye ukopa “indawo yokuma.” - Ukuhlela abafundi ngokwesini, abo banezihlangu, nabo baneembadada, kunye nabo bahamba ngeenyawo. - Biza abafundi abalandelayo beze ngaphambili. Amantombazana namakhwenkwe aneebhulukhwe, intombazana enelokhwe. o Bonke abantwana abanxibe izihlangu, omnye akanxiBanga zihlangu. - Buza umbuzo othi: “Ngowuphi umfundi ongangqamaniyo? “Ngowuphi umfundi owahlukileyo?”		Usuku olu-1.

Iveki ye- 11	**Ixesha lokufundisa elicetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
3.2 **Izinto ezinokwakheka kuka 3-D kunye** **3.3** **Nezinto ezinokwakheka kuka 2-D**	• **Chaza ,hlela uze uthelekise izinto ezinokwakheka kuka 3-D kunye neemilo ezinokwakheka kuka 2-D ngokwendlela ezifana ngayo nangendlela ezohluke ngayo** - Abafundi ababini babhampisa iibhola: ibhola enkulu nebhola encinane. - Abanye abafundi balatha iindlela iibhola ezifana ngayo nezahluke ngayo. - Omnye umfundi uqengqa i-orenji, omnye uqengqa ibhola. - Abanye abafundi balatha iindlela ibhola ne-orenji ezifana ngayo nezahluke ngayo. - Abafundi baqaphela izihlangu zamakhwenkwe neembadada zamantombazana. - Abanye abafundi balatha iindlela izihlangu ezifana ngayo nezahluke ngayo. - Abafundi bakhangela izinto ezifanayo eklasini. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso.** - Ukunika imidlalo yamakhadi yokutshatisa ukukhuthaza okufanayo nokwahlukileyo, umzekelo,   - Inkqubela-phambili engamakhadi anzima **ngaphezulu ekuhambeni konyaka.** Abafundi akunyanzelekanga ukuba bafunde oonobumba, umzekelo,  	Yenza imidlalo yamakhadi okutshatisa njengoko kuxeliwe kumzekelo ongasezantsi.  Ukutshatiisa imidlalo ngamakhadi.	Usuku olu-1.

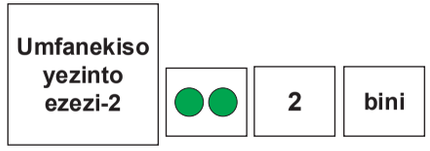
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Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.4 **Chaza,thelekisa uze ucwangcise amanani**	• **Ukucwangcisa nokuthelekisa iingqokela yezinto esebenzisa "iyalingana ne" okanye "iyafana".** **Ukufunda usebenzisa intshukumo yomzimba:** Yalela abafundi: - Baphuhlisa amagama:efanayo neyahlukileyo. - Ukuthelekisa iminwe yabo neenzwane zabo. Nangona inenani **elifanayo** ikhangeleka yohlukile. - Ukuthelekisa iminwe, iinzwane namehlo. Zibonakala zohlukile kodw Sinenani elifanayo leminwe neenzwane, umzekelo, i- 10 kodwa sinamehlo amabini kuphela. - Ukuthelekisa iindlebe, iingalo, imilenze neenyawo. Zibonakala zohlukile kodwa zinenani **elifanayo**, oko kukuthi sinezibini zezi zinto. - Utitshala uzoba izangqa ezibini phantsi okanye wenza izangqa ezibini ngomsonto. Yalela abafundi bazohlule ukwenzela ukuba inani labafundi lilingane kwisangqa ngasinye. Bala inani labafundi. Khomba amaqela alinganayo kwafanayo.		Usuku olu-1.

Iveki ye- 11	**Ixesha lokufundisa elicetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.4 **Chaza,thelekisa uze ucwangcise amanani**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** - Baphuhlisa amagama okufanayo nokwahlukileyo. - Beka iseti yeesimboli zomfundi phakathi kwikhaphethi. - Nika umfundi ngamnye ikhadi lesimboli. Abafundi bazama ukutshatisa iisimboli zabo nefanayo ekhaphethini. - Beka iqela lezinto etafileni uze uzohlule zibe ngamaqela alinganayo (enye yeyakho, enye yeyam). Imizekelo: 1. Beka izinto ezimbini zodidi olufanayo, umzekelo, iikhrayoni, emqolweni wetafile. Buza umfundi omnye ukuba **atshatise** ikhrayoni nganye katitshala neyakhe. (Umfundi kufuneka athathe iikhrayoni ezimbini zokutshatisa inani leekhrayoni zikatitshala. “Ngoku umntu ngamnye unenani elinye / elifanayo leekhrayoni.” 2. Phinda lo msebenzi mnye njengasentla ku- 4 kunye nezinto ezi- 6 zabafundi zokuqonda ulwazi ngamagama athi “okufanayo / okulinganayo.” 3. Utitshala ubeka iibhloko ezi- 2 kumqolo wetafile. Unika ngamnye abafundi ababini ibhloko. Yalela utitshala ukuba atshatise ibhloko nganye kwiibhloko zakhe. (Abafundi ngabanye kufuneka beze nenye ibhloko yokutshatisa neebhloko ezimbini zikatitshala). “Ngoku umntu ngamnye uneebhloko ezi- 2. Sinenani elifanayo neebhloko.”  **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso.** - Yalela abafundi bathelekise umfanekiso noonotsheluza abanamachaphaza. Mabachonge amakhadi afanayo.  - Banike umdlalo wokumetshisa amakhadi ngexesha lokudlala ngaphakathi apho abafundi banokwahlula phakathi kokufanayo nokwahlukileyo.	 Iibhloko.	Usuku olu-1.

Iveki ye- 11	**Ixesha lokufundisa elicetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.4 **Chaza,thelekisa, ucwangcise amanani**	• **Ukucwangcisa nokuthelekisa iingqokelela zezinto usebenzisa “ngaphezulu kwe ”.** **Ngomlomo:** Ukubala izinto zemihla ngemihla ukuya kutsho ku- 2. **Bethelela “u-ninzi” “no -mbalwa”.** Qhwaba izandla zakho kanininzi.....YIMA Qhwaba izandla amatyeli ambalwa. Utitshala uqhwaba amaxesha ukuya kuma kuma- 2. **Ukufunda usebenzisa intshukumo yomzimba:** Umfundi uyazixela iingqokelela ezinikiweyo ezimbini zezinto: “ngaphezulu” Yalela abafundi: - Bala amehlo abo neminwe yabo. Buza umbuzo: “Zeziphi ezininzi abanazo?” - Bonisa iminwe emibini kwesinye isandla nomnwe omnye kwesinye isandla. “Sesiphi isandla esinezingaphezulu?” - Khetha abafundi abathathu usebenzisa isingqisho sokubala xa usenza oko. Zahlula ngokwamaqela esi- 2 nesi- 1.  - Bala inani labafundi kwiqela ngalinye. Thelekisa amaqela amabini uze ubuze imibuzo enje ngale: “Leliphi iqela elinabafundi abaninzi?”. “Leliphi iqela elinezingaphezu kwesinye?”		Usuku olu-1.

Iveki ye- 11	**Ixesha lokufundisa elicetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama-± 30 ngosuku (imisebenzi yeMathematika emi-± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.4 **Chaza,thelekisa, ucwangcise amanani**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Beka izibini ezi- 2 zezikere, izinto zokubala ezi- 3 neekhrayoni ezi- 4 kwitheyibhile. Bala izinto zeqela ngalinye.  - Buza umbuzo othi: “Ngawaphi amaqela anezinto ezininzi. Leliphi iqela elinezinto ezininzi”. “Leliphi iqela elinezikere ezininzi? “Leliphi iqela elinezingaphezu kwezintathu?” - Beka iindidi ezahlukeneyo zezinto eziphathekayo (amakhohlombe, izitya, iziciko, njalo-njalo). Zihlele ngokwamaqela (zonke iziciko kunye), ubala inani lazo kwiqela ngalinye uze ubonise ukuba leliphi na iqela elingaphezulu, elingaphantsi, elilinganayo. Banike ithuba lokusebenza ngezinto zokubala zabo. Qala ngamanani amancinane. - Unxulumaniso: Izikhongozeli mazinikwe xa kudlalwa ngamanzi nesanti ukunika amathuba okulingisa ngeengqiqo ezinjengo-ngaphezulu, ngaphantsi no-lingana.	Naziphi izinto eziseklasini.	
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso. - Yalela abafundi bathelekise umfanekiso noonotsheluza abanamachaphaza. Khetha amakhadi angaphezu kwenani elinikiweyo ngutitshala, umzekelo, - Utitshala uthi: Khangela ikhadi elinemifanekiso yamachaphaza angaphezu kwesi- 2? - Ukutshatisa amakhadi anenani elifanayo lezinto izixhobo zokubala. (ipakethi yesixhobo sokubala / ikhawunta yechokoza ngalinye okanye umfanekiso ngamnye). 	Umfanekiso noonotsheluza abanamachaphaza. Iikhawunta / izixhobo zokubala.	

Iveki ye -12	**Ixesha lokufundisa elicetyiswayo:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama ±30 ngosuku (±5 ezemisebenzi ye mathematika ngeveki)**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	• **Nakana uze uchonge isimboli yenani kunye negama lenani elibandakanya u- 2** **Ngomlomo:** Bala yonke imihla izinto ukuya kwi- 2 Bala ubhekisa phambili nangasemva uye kwi- 2 Ukubala ngokungenantsingiselo u- 1 ukuya kwi- 7 **Bethelela ingqiqo ka "ninzi no mbalwa"** Qhwaba kaninzi …… YIMA Qhwaba izandla zakho amaxesha ambalwa.Utitshala uqhwaba ukuya kwi- 2	lingoma zamanani neezicengcelezo	Usuku olu-1.
	Ukufunda usebenzisa intshukumo yomzimba Vumela abafundi ba: - Bhampise ibhola kanye ,ngamanye amagama ixesha eli-1 - Bhampise ibhola kabini,ngamanye amagama amaxesha ama- 2 emhlabeni baze abafundi bahambe phezu kwenani elingu- 2 - Zobe isimbolli engu- 2 esantini,emoyeni ,ekhaphethini njl-njl - Benze inani elungu- 2 - Khangele abahlobo bakho aba- 2 abanxibe izihlangu	Ibhola Intlama yokudlala	
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Abafundi mabenze oku: - Thatha izinto zokubala - Thatha izinto zokubala ezimbini	Izinto zokubala	

Iveki ye -12	**Ixesha lokufundisa elicetyiswayo:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama ±30 ngosuku (±5 ezemisebenzi ye mathematika ngeveki)**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	**Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Abafundi mabenze oku: - Chonga oonotsheluza abanemifanekiso uze ubadibanise nenani lezinto . - Chonga oonotsheluza abaphawulwe ngamachokoza amabini baze bawadibanise nenani elilingana nezinto ezo. - Chonga isimboli yenani nonotsheluza onegama lenani uze uyidibanise nenani elilingana nezinto ezo. - Chonga isimboli yenani elingu- 2 emfanekisweni oyinikwe ngutitshala. - Khangela apha egumbini utsho ukuba ulibona phi inani elingu-2. - Hlula iklasi ibe ngamaqela amabini.Nika ithuba lokudlala ngeedomino ngokwamaqela.	Oonotsheluza abanemifanekiso emibini, amachaphaza, iisimboli zamanani negama lenani.  Izinto zokubala Imifanekiso enesimboli yenani eli - 2	Usuku olu-1.

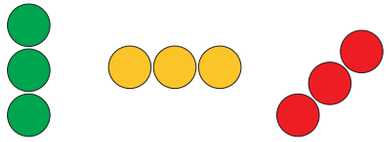
Iveki ye -12	**Ixesha lokufundisa elicetyiswayo:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama ±30 ngosuku (±5 ezemisebenzi ye mathematika ngeveki)**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.7 **Ukudibanisa nokuthabatha**	• **Sombulula ngomlomo uze ucacise izisombululo zezibalo zamazwi (izibalo ezingamabali) ezibandakanya u-2** **Ukufunda usebenzisa intshukumo yomzimba** **Imizekelo:** 1. Utitshala ubiza umfundi omnye ukuba eze ngapahambili.Umfundi uyazibala.Utitshala uphinda abize omnye umfundi aze abuze: Bangaphi abafundi bebonke 1kunye no 1→2.(Utitshala uthi u 1no 1 benza u 2) 2. Utitshala uthabatha isitulo esi-1 .Uthi athathe nesinye aze abuze ukuba zingaphi izitulo zizonke? U -1 no 1 → 2. 3. Utitshala uphakamisa uminwe emi-2 aze athi:“bala iminwe yam”.Ukuba ndifihla ubemnye ,ndibona iminwe emingaphi ? 2 thabatha 1 → 1. 4. Utitshala uphakamisa uminwe emi-2 aze athi: bala iminwe yam”.Ukuba andiyisusi iminwe yam,ubona iminwe emingaphi ?2 thabatha 0 → 2. 5. Kukho umntwana omnye ekhaya.Kufika omnye eze kudlala.Bangaphi bebonke abantwana ngoku? 6. Kukho abantwana ababini etafileni.Umntwana ngamnye ufuna isitulo sakhe.Ingaba sifuna izitulo zibe ngaphi? **Ukusebenzisa izinto eziphathekayo ezinokwakheka okungu 3-D** **Umz:** Izixhobo zokubala 1. Ukuba uneqebengwana elinye aze umama akunike elinye,uya kuba namaqebengwana amangaphi ? 2. Utitshala unekhawuntari ezimbini, kwisandla sakhe esinye, akanazo kwesinye .Ingaba zingaphi izixhobo zokubala zakhe zizonke ? 3. UCay uneebhola ezimbini.Ibhola enye kwezi zimbini iyaqengqeleka.Ingaba uCay ushiyeke neebhola ezingaphi? 4. Ukuba uneebhloko ezimbini uze unike umhlobo wakho ibhloko enye, ingaba umntu emnye uza kuba neebhloko ezingaphi?	lingoma zamanani nezicengcelezo Izinto zokubala (izixhobo zokubala ukuba awunawo amaqebengwana) Izinto zokubala (Izixhobo zokubala) Ibhola libhloko	Usuku olu-1.

Iveki ye -12	**Ixesha lokufundisa elicetyiswayo:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama ±30 ngosuku (±5 ezemisebenzi ye mathematika ngeveki)**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.4 **Chaza,thelekisa ucwangcise, amanani**	• **Landelelanisa/cwangcisa uze uthelekise ingqokelela yezinto usebenzisa "ingaphantsi kune"** **Ngomlomo**: Bala izinto yonke imihla uye kuma kwinani eli-2 **Bethelela ingqiqo engu "ninzi" no "mbalwa"** Qhwaba izandla zkho amaxesha ama……YIMA Qhwaba izandla zakho amaxesha ambalwa.Utitshala uqhwaba aye kuma ku -2.	Iingoma zamanani nezicengcelezo	Usuku olu-1.
	Ukufunda usebenzisa intshukumo yomzimba (Dibanisa ubugcisa bokwenza eqongeni nezakhono zobomi-umdaniso) - Cula ingoma:" Intloko ,"amagxa ,sifuba nesinqe".Cula onke amagama kumjikelo yokuqala" si - Kumjikelo olandelayo phungula igama ambalwa- libe linye. Umz.Intloko,amagxa,sifuba ne.....Sifuba ne..... - Cula ingoma ube namagama ambalwa owashiyayo Intloko namagxa ne..... ne....." - Utitshala uyalatha ngalo lonke ixesha beshiyelela igama ambalwa kude kungashiyeki magama **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Utitshala wenza imitya yamaso. Faka amaso amathathu kumtya wokuqala ,amaso amabini kumtya wesibini,iliso elinye kumtya wesithathu namaso amathathu kumtya wesine. - Abafundi mabachonge oku:Let learners identify: - Ngowuphi owona mtya onawona maso ambalwa ? - Ngowuphi umtya wamaso oneliso elinye elingaphezulu komtya onamaso amathathu?	Iingoma: Intloko ,"amagxa ,sifuba nesinqe" Imitya emine ezinamanani amaso awohlukileyo.	

Iveki ye -12	**Ixesha lokufundisa elicetyiswayo:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama ±30 ngosuku (±5 ezemisebenzi ye mathematika ngeveki)**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.4 **Chaza, thelekisa ucwangcise, amanani**	**Ukusebenzisa iimilo ezinokwakheka kuka- 2-D okanye imifanekiso** - Abafundi mabathelekise umfanekiso nonotsheluza onamachaphazChonga unotsheluza onenani elingaphezulu okanye ongaphantsi kulawo anikwe ngutitshala. Umz.Ngowuphi unotsheluza onezinto ezingaphezu kwesibini? - Ngowuphi unotsheluza onezinto ezimbalwa kune-4? 	Yenza imifanekiso nonootsheluza bamachaphaza.	Usuku olu-1.
	• **Bethelela ukuthelekiswa kwezinto eziyingqokelela usebenzisa:** - **ngaphezulu kune** - **ngaphantsi kune (mbalwa)** **Ukubala ngomlomo: Bala izinto yonke imihla uye kuma kwinani elingu-2** Cengceleza ngokubala ukusuka ku -1 -7 **Bethelela u –“ ninzi “no “mbalwa”** Qhwaba izandla amaxesha amaninzi……YIMA Qhwaba izandla amaxesha ambalwa.Utitshala uqhwaba aye kwisi-2	Iingoma zamanani nezicengcelezo	Usuku olu-1
	Utitshala wenza umtya onamaso.Faka amaso amathathu kumtya wokuqala,abe-2 kumtya wesibini Abafundi bachonga: - Ngowuphi umtya wamaso onawona maso ambalwa? - Ngowuphi umtya wamaso onawona maso maninzi? - Ngowuphi umtya wamaso onamaso amabini ngaphezulu kunomnye umtya? - Ngowuphi umtya wamaso onamaso amathathu ngaphantsi kunomnye umtya? Nxulumanisa nobugcisa bokubonwayo apho abafundi boluka istro,sika imilo ezinemingxuma phakathi,amagqabi njl-njl	Imitya emine ezinamanani amaso awohlukileyo.	

Iveki ye -12	**Ixesha lokufundisa elicetyiswayo:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama ±30 ngosuku (±5 ezemisebenzi ye mathematika ngeveki)**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.4 **Chaza, thelekisa ucwangcise, amanani**	**Ukusebenzisa imifanekiso/iimilo ezinokwakheka kuka 2-D** Beka iqela lezinto etafileni uze uzahlule ngolu hlobo: - Amaqela alinganayo ((enye yeyakho, enye yeyam) - Amamqela angalinganiyo(thelekisa ubone ukuba leliphi iqela elizinto ezinzi kunelinye/ leliphi iqela elinezinto ezimbalwa/ngawaphi alinganayo) - Ukuba kukho amqela amabini angalinganiyo kufuneka senze ntoni ukuze alingane?)	Imitya emine ezinamanani amaso awohlukileyo.	Usuku olu-1
3.2 **Izinto ezinokwakheka kua 3-D kunye** **3.3** **Nezinto ezinokwakheka kuka 2-D**	• **Chaza,hlela uze uthelekise izinto ezinikwakheka kuka 2-D kunye no 3-D** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Abafundi maba: - Hlele iintlobo ngeentlobo zezinto ngokobukhulu. - Hlele uze uthelekise iibhloko zokwakha ngokobukhulu (inkulu,incincic) - Hlele ibhloko ngokwe sakheko esifanayo **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Hlula abantwana babe ngamaqela amahlanu.Nika iqela ngalinye izinto ezineemilo ezahlukileyo. - Abafundi mabahlele imilo ngoko o Mbala o Imilo (nokuba abafundi abazazi izakheko) o Ubukhulu - Sebenzisa amakhadi anemidlalo abonakalisa umbala,ubukhulu nemilo	Izinto ezinkulu nezincinci ezahlukileyo apha egumbini lokufunda umz ibhola, unodoli, imoto yokudlala, iibhloko. Iibhloko zokwakha neebhola ezinobukhulu obungalinganiyo Iimilo nokuba zeziphi imilo (logi shapes) ezinemibala eqaqambileyo.	Usuku olu-1

IVEKI YE 13	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	• **Fundisa intsingiselo yenani u – 3** **Ngomlomo: Bala izinto yonke imihla uye kuma kwinani elisisi-3** Bala usiya phambili ubale ubuya umva uye kuma kwisi- 3 **Bethelela u –“ ninzi “no “mbalwa”** Qhwaba izandla amaxesha amaninzi……YIMA Qhwaba izandla amaxesha ambalwa.Utitshala uqhwaba aye kwisi- 3	Iingoma zamanani nezicengcelezo	Usuku olu-1
	Ukufunda usebenzisa intshukumo yomzimba - Utitshala ubetha igubu okanye udlala umculo.Xa umculo ucimile abafundi bohlulwa babengamaqela amathathu. - Buza abantwana ukuba ngubani onamalungu osapho amathathu kuphela. - Abafundi bema emgceni.Utitshala ubuza ukuba ngubani owesithathu emgceni?’ - Yohlula abafundi babe ngamaqela ama ±5 - Abafundi maba: - Krazule amaphepha amathathu kwincwadi esisalathiso seenombolo zomnxeba endala. - Shwabanise amaphepha amathathu abe ziibhola ezintathu bawaqinise kangangoko. Ukuphucula ubucala sebenzisa esona sandla umntwana asisebenzisayo.Abantwana banokuhlala phezu kwesandla angasisebenzisi rhoqo. - Vule iibhola uze uzishwabanise kwakhona. - Bale iibhola emveni kokuba uzishwabanise zontathu. - Njengokuba ubala phosa iibhola zontathu ebhaskithini uze uzibeke embindini weqela. Lo msebenzi unokunxulunyaniswa neMithambo kwiziFundo Zobomi.	Abafundi ngokwabo Izinto zokubala (izixhobo zokubala) Incwadi yeenombolo zomnxeba endala.	

IVEKI YE 13	**Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Abafundi maba: - Chonge izinto ezi- 3 egumbini lokufunda - Phakamisa iminwe emithathu - Beka izinto ezi- 3 etafileni.Umfundi ngamnye makeze etafileni eze kubala into nganye. Abafundi babamba into nganye lo gama bebala.Phinda phinda nagezinye izinto. - Phuhlisa ulwazi lwamanani ngokuthi ubayeke abafundi bapakishe izixhobo zokubala ezintathu okanye nokuba yintoni ngendlela ezahlukileyo. Umz.  Xa ebala, inani lezinto malingachatshazelwa bubukhulu okanye indawo okanye ukufana. Umz. - Cwangcisa amaqhosha ama-3, iipensile ezi-3, izangqa ezi-3, abafundi aba-3 njl-njl. - Bala ezi zinto ngeendlela ezininzi umz. Zibale zither saa, ziqokelelene, zisemgceni okanye zibekwe enye phezu kwenye.	Izinto zokubala/izixhobo zokubala okanye izinto	Usuku olu-1
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye umfanekiso - Bonisa umfanekiso wembiza yesiXhosa enemilenze emithathu. - Bala imilenze. - Abantwana mabacinge ngayo yonke into enemilenze emithathu. - Bonisa ikhadi elinomfanekiso onezinto ezintathu.Abafundi babala izixhobo zokubala ezihambelana nenani. - Yenza njalo ngoonotsheluza abanamachokoza. - Abafundi batshatisa oonotsheluza abanamachaphaza nonotsheluza onomfanekiso.	Oonotsheluza abanemifanekiso Oonotsheluza abanamachaphaza Izixhobo zokubala **Umfanekiso wezinto ezintathu** 	

IVEKI YE 13	**Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.3 **Iisimboli zamanani namagama amanani**	• **Zazi iisimboli zamanani uze unakane amagama amanani abandakanya inani elingu- 3** **Ngomlomo: Bala izinto yonke imihla uye kuma kwinani elisisi- 3** Bala ubhekisa phambili nangasemva uye kuma kwisi- 3 **Bethelela u –“ ninzi “no “mbalwa”** Qhwaba izandla amaxesha amaninzi……YIMA Qhwaba izandla amaxesha ambalwa.Utitshala uqhwaba aye kwisi- 3 Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D **Nika umfundi ngamnye iityhubhu ezi- 3** - Utitshala ubonisa abantwana ichaphaza,umfanekiso,isimboli okanye unotsheluza onamanani u-1 ukuya ku- 3 - Abafundi babhala inani elithile baze bathathe iityhubhu ezilingana nelo nani.	Iityhubhu Oonotsheluza abanamanani ano -1 ukuya kwi- 3 **Umfanekiso onezinto ezint**  **3** **ntathu**	Usuku olu-1
	Ukusebenzisa iimilo ezinokwakheka kuka- 2 D okanye imifanekiso Abafundi ba: - Chonga ononotsheluza onamani emifanekiso awohlukileyo - Chonga unotsheluza onenani elingu-3 - Tshatisa isimboli yenani elisisi-3 kunye nenani lezinto nenani lamachaphaza. - Tshatisa igama lenani kunye nonotsheluza onesimboli yenani lamachokoza. - Nika umfundi ngamnye ikhadi elinamanani u -1 ukuya kutsho kwi -3. Utitshala uphakamisa ichaphaza okanye umfanekiso. Umfundi makaphakamise ikhadi elinenani elihambelana nechaphaza okanye umfanekiso.	Oonotsheluza abanamanani emifanekiso awohlukileyo. Unotsheluza onesimboli yenani engu-3 Unotsheluza ophawulwe ngamachaphaza ama-3 **Umfanekiso onezinto ezint**  **3** **ntathu**	

IVEKI YE 13	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.7 **Ukudibanisa nokuthabatha**	• **Sombulula ngomlomo iingxaki ezixeliweyo zokudibanisa nokuthabatha ezinezisombululo ukuya kwi- 3.** **Ngomlomo: Bala izinto yonke imihla uye kuma kwinani elisisi-3** Bala ubhekisa phambili nangasemva uye kuma kwisi-3 **Ukufunda usebenzisa intshukumo yomzimba** **Imizekelo:** - Utitshala ubiza abafundi ababini ukuba beze ngapahambili.Abafundi baya babala. Utitshala uphinda abize omnye umfundi aze abuze: Bangaphi abafundi bebonke:2 kunye no 1→3.(Utitshala uthi 2 no 1 benza isi- 3) - Utitshala uthabatha izitulo ezi-3. Akongezi situlo.Zingaphi izitulo ngoku? 3 no 0® 3 - Utitshala uthabatha izitulo ezi-3 .Uthatha sibe sinye aze abuze ukuba zingaphi izitulo ngoku? 3 no 1→ 2.(2 no 1 bakunika isi -3) - Utitshala ubiza abantwana aba-3 beze ngaphambili.Babale.Uthumela ababini ukuba baye kuhlala phantsi.Bangaphi abafundi abashiyekileyo? 3 thabatha 2 →1 **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Nika abafundi abathathu izixhobo zokubala.Utitshala ubalisa ibali baze abantwana babeke into yokubala. **Imizekelo:** 1. U-Anelisiwe unee-orenji ezi -2.UPopo umnika i-orenji e-1.Ingaba uAnelisiwe unee-orenji ezi ngaphi ngoku? 2 no 1→3 (Utitshala uthi: 2 no 1 ukunika 3). 2. Umthi unesebe elinye.Kukhula amanye amasebe ama-2.Umthi unamasebe amangaphi ngoku? 1 no 2→3. **Imizekelo:** 1. Inkawu ineebhanana ezi -3.Itya ibhanana ibe -1.Ingaba ishiyekelwe ziibhanana ezingaphi? 3 thabatha 2→1. 2. Kukho ii-apile ezi-2 emthini.I-apile e-1 iyawa.Kushiyeke ii-apile ezingaphi emthini? 2 thabatha 1 →1.	Iingoma zamanani nezicengcelezo Izitulo Izinto zokubala ezi-3 zomfundi ngamnye	Usuku olu- 1

IVEKI YE 13	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
2.1 **Iipateni zejiyometri**	• **Yila iipateni zakhe esebenzisa izinto ezimbini** **Ukufunda usebenzisa intshukumo yomzimba** Abafundi benza isangqa.Bacula besebenzisa amagama ngokukhawulezayo Umzekelo: Imvula,imvula Chapha,chapha Imanz' ilokhwe yam Imanz' lokhwe yam **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Abafundi ba: - Qokelela apha egumbini lokufunda izinto ezi-3 ezifanayo. Umz iikhrayoni ezi-3 - Qokelela ezinye izinto ezi-3 ezifanayo umz.iibhloko ezi- 3 - Abafundi bayila iipateni zabo besebenzisa izinto ezimbini.umz - Ikhrayoni enye, ibhloko enye, ikhrayoni enye….. - Iikhrayoni ezimbini, ibhloko enye, iikhrayoni ezimbini, ibhloko enye….. - Vumela abafundi ukuba bayile iipateni ngeendlela ezahlukileyo. - Batshintshiselana nabahlobo babo ngezinto.Makuphinda phindwe oku.	Ikhrayoni Into yokuncamathisela Ingqokelela yezinto nokuba ziintoni	Usuku olu-1

IVEKI YE 13	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
3.3 **Izinto ezinokwakheka kuka 2-D**	**Nakana,chonga uze uxele iimilo ezinokwakheka kuka- 2-D ezilapha egumbini lokufunda eziquka imifanekiso.** - **unxantathu** • **Bethelela ulwazi olufundwe kwiveki yesine ukuze anakane, achonge, axele unxantathu.** **Ukufunda usebenzisa intshukumo yomzimba** Zoba, okanye usebenzise intambo ukuyila umphandle weemilo ezinkulu zikanxantathu. Abafundi maba: - Hamba kumacala emilo onke aze aqwalasele iimpawu zika nxantathu. Njengokuba behamba abafundi mabathi: Ndihamba kunxantathu.Nye, mbini, ntathu amacala. Okanye nye,mbini, ntathu iikona (ii-engile) - Utitshala uxelela abafundi ukuba unxathathu uneekona ezintathu namacala ama-3. - Zoba unxantathu emoyeni okanye esantini. - Bumba unxantathu ngomdongwe. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Abafundi maba: - Nakane baze bachonge izinto egumbini lokufunda ezinemilo kanxantathu. - Nakana baze bachonge izinto endalweni ezinemilo kanxantathu. - Faka iintlobo ngeentlobo zezangqa noonxantathu abanobukhulu obahlukenenyo kwibhegi.Chonga unxantathu phakathi kwezo milo. 	Umdongwe okanye intlama yokudlala Izinto ezinemilo kanxantathu egumbini lokufunda naphandle. Yenza amakhadi abenezanqga,oonxantathu nezikwere ezahlukileyo ezi-5.	Usuku olu-1

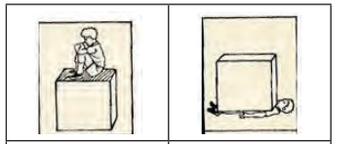
IVEKI YE 13	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
3.3 **Izinto ezinokwakheka kuka 2-D**	**Hlela izinto ezinokwakheka kuka 3-D neemilo ezinokwakheka kuka 2-D** Hlela izinto ngokwemilo nombala.		Usuku olu-1
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso Abafundi maba: - Chonga unxantathu emifanekisweni. - Zoba unxantathu ephepheni. - Kopa unxantathu kwikhadi olinikiweyo - Rhangqa izangqa ezikwiphepha lomsebenzi olinikiweyo - Yenza imifanekiso usebenzisa unxantathu ngexesha lokuzoba - Dlala umdlalo wamakhadi ophucula uze ubethelele iimilo.	Imifanekiso apho unxantathu anokuchongwa khona. Amakhadi anemidlalo ephuhlisa ukuqatshelwa kweemilo ezifana nezikwere efana nale “Yintoni ekwisikwere”. Iimilo zelogi (logi shapes)	

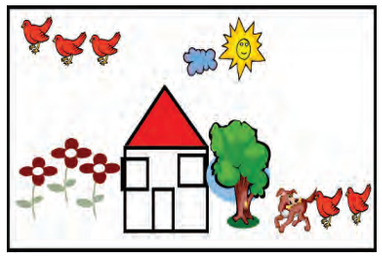
IVEKI YE- 14	**Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	• **Bethelela ulwazi alufumeneyo lwenani u-3** **Ngomlomo: Bala izinto yonke imihla uye kuma kwinani elisisi-3** Bala usiya phambili, ubale ubuya umva uye kuma kwisi-3 Bala ngentloko ngokungenantsingiselo ukuqala ku-1-7 **Bethelela u –“ ninzi “no “mbalwa”** Qhwaba izandla amaxesha amaninzi……YIMA Qhwaba izandla amaxesha ambalwa.Utitshala uqhwaba aye kwisi-3	Iingoma zamanani nezicengcelezo.	Usuku olu-1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Abafundi ba: - Funa izinto ezibomvu zibe -3 egumbini lokufunda. - Yenza inani elingu-3 besebenzisa umdongwe. - Bumba iibhola ezi-3 ezinkulu ngomdongwe. - Bumba ibhola ezi-3 ezincinci ngomdongwe. - Khangela egumbini lokufunda abafundi aba-3 abanxibe umbala omnye.	Izinto ezibomvu. Umdongwe.	

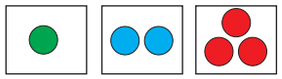
IVEKI YE- 14	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku ngangcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.7 **Ukudibanisa nokuthabatha**	• **Sombulula ngomlomo uze ucacise isisombululo kwizibalo zamazwi (izibalo ezingamabali) ezinenani elingu-3** **Ngomlomo:** Bala izinto yonke imihla uye kuma kwinani elisisi-3 Bala usiya phambili ubale ubuya umva uye kuma kwisi-3 **Ukufunda usebenzisa intshukumo yomzimba** **Imizekelo:** 1. Utitshala ubiza abafundi aba- 2 ukuba beze kuhlala ekhaphethini.Utitshala ubiza umfundi omnye ukuba aze kuhlala ekhaphethini.Utitshala ubize abantwana aBangaphi ukuba beze kuhlala ekhaphethini.Utitshala uthi: 2 no 1 bakunika u 3. 2. Kukho abantwana abathathu.Umntwana ngamnye ufuna ikhrayoni yakhe.Zingaphi ikhrayoni esizifunayo? 3. Abantwana abathathu bame bonke.Omnye uyaphuma egumbini.Bangaphi abantwana abashiyekileyo? **Izinto eziphathekayo ezinokwakheka kuka- 3-D** **Imizekelo:** 1. Utitshala ubeka izinto zokubala ezi -3 etafileni.Uthatha izixhobo zokubala ezi-2. Zingaphi izixhobo zokubala ezishiyekileyo etafileni? Utitshala uthi 3 thabatha 1 kushiyeka 2. 2. UPat uneekati ezimbini.Uphiwa nguBusi ikati e-1.Zingaphi iikati zikaPat zizonke? 1 no 2→3. Utitshala uthi 1 no 2 zikunika 3. 3. Ukuba ikati enye inomsila omnye, mingaphi imisila yeekati ezi- 3 iyonke? 1 and 1 and 1→3	Abafundi Izixhobo zokubala	Usuku olu-1

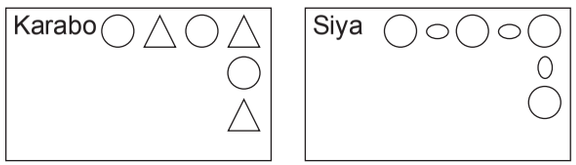
IVEKI YE- 14	**Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki**		
ISIHLOKO	**Amanqaku ngangcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
2.1 **Iipateni zejiyometri**	• **Gqibezela iipateni azinikiweyo enezinto ezi- 2** **Ukufunda usebenzisa intshukumo yomzimba** - Abafundi mabakope ipateni yentshukumo. Umz. Xhuma, xhuma, tsiba, tsiba, xhuma, xhuma, tsiba..... - Abafundi bagqibezela ipateni besebenzisa imizimba yabo umz. e.g. Bama ecaleni komnye baze bemana betshintsha izandla zabo bezibeka entloko,izandla emahlezeni,izandla entloko…… **Izinto eziphathekayo ezisebenzisa ukwakheka kuka 3-D** - Abantwana mabakope ipateni yento umz. iliso, iliso(bead), uluthi, uluthi, iliso, iliso, uluthi, uluthi	Nokuba yintoni	Usuku olu-1
	Iimilo ezinokwakheka kuka 2-D okanye umfanekiso - Utitshala unika abantwana imifanekiso yento enye esele isikwe kakuhle eziindidi ezininzi.(Sika imifanekiso ngexesha lemisebenzi yobugcisa bokubonwayo). - Utitshala wenza ipateni baze abafundi bayikope umz.umfanekiso wekofu; iti, iswekile…. - Abafundi mabagqibezele ipateni ngokuzoba: - Intyatyambo, igqabi, intyatyambo..... - Isangqa esi bhlowu, isekile ebomvu, isangqa esi bhlowu..... njl-njl.	Imifanekiso eneentengiso. Iphepha elingu A4 neekhrayoni	

IVEKI YE- 14	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku ngangcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
3.2 **Izinto ezinokwakheka kuka 3-D**	• **Hlela uze uthelekise izinto ezinokwakheka kuka 3-D neemilo ezinokwakheka kuka2-D ngokweempawu ezithile** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Hlula abantwana babe ngamaqela ama-5. - Utitshala uqokelela izinto ezaneleyo ukuze iqela ngalinye libe nakho ukuzihlela ngokweempawu ezimbini. (Zinokuba ninzi kunoku). - Nika iqela lezinto ezineempawu ezimbini ukuze lizihlele. Abantwana mabenze oku: - Hlela izinto ezifanayo nezahlukileyo. **Ukusebenzisa iimilo ezinokwakheka kuka- 2 D okanye imifanekiso** Abantwana mabahlale kula maqela bebekuwo. - Thelekisa uze uhlele imifanekiso eyahlukileyo ebiqokelelwe ngutitshala.umz.lindidi ngeendidi zemifanekiso yeelokhwe, ukutya, izithuthi njl-njl. - Abafundi bagqibezela amaphepha okusebenza apho batshatisa khona imifanekiso emibini umz. Intlama yamazinyo nebrashi yamazinyo, ilaphu lokuhlamba ubuso nesepha.	Izinto ezifana nezi: Iimpahla zokunxiba ezahlukileyo Iintlobo ngeentlobo zeziqhamo lindidi ngeendidi zezilwanyana zasefama zokudlala limilo ezahlukileyo ze- jiyometri lindidi ngeendidi zeebhloko zokwakha lindidi ngeendidi zeebhloko zelogi (logi blocks) lindidi ngeendidi zezinto ezifana namagqabi,amakhuni,amatye nj-njl lindidi ngeendidi zamaqhosha. lindidi ngeendidi zemibala yeziciko zeebhotile. lindidi ngeendidi zeekhrayoni. Qokelela imifanekiso kwiimagazini neencwadana zolwazi. Sika uze uncamathisele emakhadini.	Usuku olu-1

IVEKI YE- 14	**Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki**		
ISIHLOKO	**Amanqaku ngangcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
3.1 **Indawo –bume, ukufumana indawo nembonakalo.**	• **Indawo yezinto ezimbinio kanye ezininzi ngokunxulumene nomfundi** - **Bethelela u-ngaphezulu/ngaphantsi** **Ukufunda usebenzisa intshukumo yomzimba** Umfundi ngamnye uhlala esitulweni. - Abantwana babonisa oku: ngaphezulu,ngaphantsi ngokulandela imiyalelo katishala. umz hlala phezu kwebhokisi,lala phantsi kwebhokisi/kwetafile. - Hlala phantsi kwetafile.Zisonge ube mncinci ukuze ube nakho ukungena phantsi kwetafile. - Yima ngeenyawo phezu kwesitulo uze uzolule kangangoko unakho. - Ngena etafileni yakho uze ujiwule iingalo zakho wenze izangqa ezinkulu/ezincinci. - Beka iibhloko entloko uze ukhwele etafileni. - Khetha abafundi abahlanu usebenzise isicengcelezo samanani - Sebenza le miyalelo kumfundi ngamnye: o Hlala phantsi izandla zakho zibe phantsi kwemilenze yakho. o Yima ngeenyawo izandla zakho zibe semahlezeni akho. o Yima ngeenyawo izandla zakho zibe ngasemva. o Hlala phantsi izandla zakho zibe semagxeni akho. o Yima ngeenyawo uphothe izandla zakho ngaphambili. Abafundi bama ngaphambili logama elinye iqela lihleli ekhaphethini. - Wenza ntoni umfundi wokuqala?*(Uhleli phantsi)* - Ziphi izandla zakho ?*(Izandla zakhe ziphantsi kwemilenze)* - Phinda nelinye iqela labafundi usebenzisa la magama okwesibini, okwesithathu, okwesine, okokugqibela. - Khupha phandle iqela elitsha lize libonise ngokwalo oku -ngaphezulu, ngaphantsi,ngaphezulu kwe-	Abantwana Ibhokisi  **phezu kwe** **phantsi kwe**	Usuku olu-1

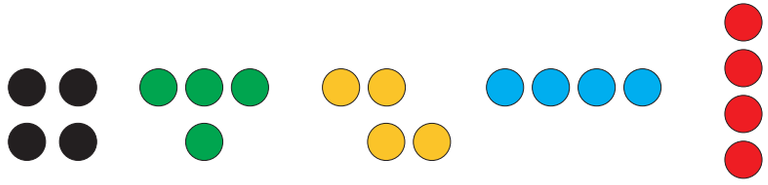
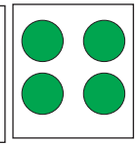
IVEKI YE - 15	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	• **Bethelela ulwazi alufumeneyo lwamanani u-1,2 no 3** **Ngomlomo: Bala izinto yonke imihla uye kuma kwinani elisisi-3** Bala usiya phambili ubale ubuya umva uye kuma kwisi-3 Bala nngentloko gokungenantsingiselo ukuqala ku-1-7 **Bethelela u –“ ninzi “no “mbalwa”** Qhwaba izandla amaxesha amaninzi……YIMA Qhwaba izandla amaxesha ambalwa.Utitshala uqhwaba aye kwisi-3	Iingoma zamanani nezicengcelezo	Usuku olu-1
	Ukufunda usebenzisa intshukumo yomzimba Khuthaza abantwana ukuba bafumanise oku: - Ilungu lomzimba eli-1 elikwaziyo ukushukuma libheke phezulu okanye libheke phantsi, liye emacaleni umz. ulwimi - Amalungu ama-2 asetyenziselwa ukutsiba umz.imilenze	Imizimba yabafundi. Ukucula balinganise ingoma umz. “ amahotyazana mahlanu emthini, kwabhabha lalinye kwasala amane…… Izicengcelezo zamanani	
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Abafundi bakhulisa ingqiqo ngamanani ngoku-: - Sebenzisa iibhloko ezi-3 wakhe ithawa - Khangela izinto ezi-3 ezibomvu apha egumbini lokufunda. **Ukusebenzisa imilo ezinokwakheka kuka- 2 D okanye umfanekiso** Utitshala uzoba umfanekiso olula - Utitshala ubuza imibuzo engqamene nenani lezinto ezisemfanekisweni. umz. Zingaphi iifestile ozibonayo? njl-njl	Iibhloko Izinto ezibomvu 	
1.2 **Ukubala usiya phambili nokubala ubuya umva**	• **Sebenzisa amanani u 1, 2 and 3 kwiimeko eziqhelekileyo** **Ngomlomo: Bala izinto yonke imihla uye kuma kwinani elisisi-3** Bala usiya phambili, ubale ubuya umva uye kuma kwisi-3 **Bethelela u –“ ninzi “no “mbalwa”** Qhwaba izandla amaxesha amaninzi……YIMA Qhwaba izandla amaxesha ambalwa.Utitshala uqhwaba aye kwisi-3 - Khuthaza abafundi ukuba bafunde ngentloko iinombolo zakumawabo kwakunye nesitalato ahlala kuso.	Ingoma zamanani nezicengcelezo	Usuku olu-1

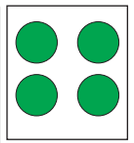
IVEKI YE - 15	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.2 **Ukubala usiya phambili nokubala ubuya umva**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Abafundi maba: - Khangele imifanekiso yamanani angu 1,2, no 3 kwimagazini neflaya baze bayincamathisele ephepheni.(nxulumanisa nobugcisa bokubonwayo) - Tshatisa inani lezinto neenani lamachaphaza kunotsheluza. - Bonisa ikhadi lamachaphaza.Abantwana baphosa inani elilinganayo neebhibhegi kwibhokisi. - Dlala umdlalo weenyoka neeleli needomino.	Iimagazini, iintengiso Oonotsheluza abanamachaphaza  libhinbhegi Umdlalo weenyoka neeleli liDomino	Usuku olu-1
AMANQAKU: Singqongwe ngamanani: - Yonke indlu inenani - Sonke sinamanani awahlukileyo kwiinombolo zethu zomnxeba - Sibona amanani ezifestileni zeevenkile - Sibona amanani kwizinto esizithengayo ezivenkileni - Sibona amanani ezimotweni			
1.4 **Chaza,uthelekise uze ucwangcise amanani**	• **Cwangcisa uze uthelekise ingqokelela yezinto usebenzisa u- ngaphezulu kune, ngaphantsi kune, lingana ne ukuya kwinani elingu-3.** **Ukufunda usebenzisa intshukumo yomzimba** Biza abafundi beze ngaphambili.Mabenze isangqa Ababini mabeme ngenyawo. - Bangaphi abahleli phantsi. Babale. Leliphi inani elingaphezulu/elona lingaphezulu, leliphi elingaphantsi/elona lingaphantsi. - Abafundi abathathu mabeme ngenyawo.Babale.Leliphi elona nani lingaphezulu/ lingaphantsi? Biza omnye umfundi eme. Babale. Ingaba abafundi abahleli phantsi Bangaphezulu kunabo bahleli phantsi? - Phinda usebenzisa amanani ukusuka ku- 1ukuya kwisi 3.. - Bala amantombazana.Bala amakhwenkwe.Ingaba amakhwenkwe angaphezulu kunamantombazana?		Usuku olu-1

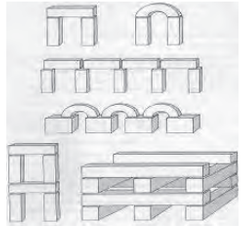
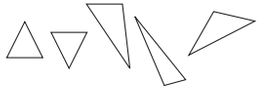
IVEKI YE - 15	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.4 **Chaza,uthelekise uze ucwangcise amanani**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Hlula abafundi babe ngamaqela amahlanu. Nika iqela ngalinye isijungqe somtya/sewulu kunye nezinto ezintlanu(zingangaphezulu/ ngaphantsi). Abafundi benza inesi ngewulu. - Utitshala usebezela iqela ngalinye,eliyalela ukuba lenze iqela lezinto ezi- 3 okanye ezi-2 okanye e-1 kwiinesi zabo. - Abafundi mabachonge iqela elinezinto ezingaphezulu kwe -1. - Leliphi iqela elinezinto ezingaphantsi kwe-3? - Leliphi iqela elinezinto ezilinganayo?	Umtya Izinto ezi- 5 kwiqela ngalinye	Usuku olu-1
2.1 **Iipateni zejiyometri**	• **Kopa uze ugqibezele ipateni ngokwale mibala: bomvu, bhlowu, tyheli.** **Ukufunda usebenzisa intshukumo yomzimba** - Utitshala ulinganisa ipateni.Uyayiphinda phinda aze agcine isingqisho.umz o Qhwaba, snepa(iminwe), qhwaba, snepa o Nqokra iminwe (snap), qhwaba, Nqokra iminwe (snap), qhwaba, ngqisha o Qhwaba, snepa, snepa, qhwaba, Nqokra iminwe (snap), snepa **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Utitshala unika abafundi izixhobo zokubala/iziciko zeebhotile ezi-3 ezibomvu, ezi-3 ezibhlowu kunye nezi-3 ezityheli. Abafundi maba: - **Kope** ipateni abayinikiweyo kwiipateni zikatitshala umz.bomvu,bhlowu,tyheli(phinda phinda amaxesha amaninzi ngepateni eyahlukileyo) - **Gqibezele** ipateni enikiweyo umz bhlowu,tyheli,bomvu……. (phinda phinda amaxesha ngepateni eyahlukileyo) - Abafundi mabahlele izixhobo zokubala ngokwemibala emithathu eyahlukileyo.	Umfundi ngamnye makafumane ezintathu ezibomvu, ezintathu eziluhlaza okwesibhakabhaka nezintathu ezityheli izixhobo zokubala okanye iziciko zeebhotile.	Usuku olu-1
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso - Nika abafundi iphetshana elincinci. - Abafundi mabagqibezela iimilo ezinezakhiwo ezinokwakheka kuka- 2-D njengesiphelo - Gqibezela umfanekiso ngexesha lobugcisa obubonwayo ngokuthi uzobe umfanekiso phakathi. 	Iphepha elingu A4 Iikhrayoni	

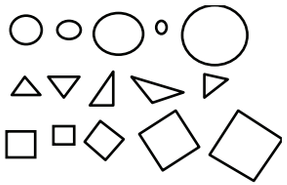
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ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.4 **Ubude**	**Thelekisa uze uhlele izinto ngokuzibamba esebenzisa isigama esifanelekileyo ukuchaza ubude** - **inde, imfutshane,** - **indana, imfutshanana,** - **eyona inde eyona imfutshane** **Ukufunda usebenzisa intshukumo yomzimba** - Umfundi omnye ulala phantsi.Abanye abafundi babeka iibhloko ngokomgca emacaleni omzimba wakhe. - Utitshala uyalela iklasi ukuba bakhe into emfutshane kunabahlobo babo nendana kunabahlobo babo.	libhloko zokwakha	Usuku olu-1
	Abafundi mabaqiniseke ukuba: - Sesiphi isakhiwo esidana? - Sesiphi esona sakhiwo side? - Sesiphi isakhiwo esifutshanana? - Sesiphi esona sakhiwo sifutshane?		
	Abantwana mabalungise iindidi zezixhobo zokwenza izinto: - Ukusuka kweyona inde ukuya kutsho kweyona imfutshane. - Ukusuka kweyona imfutshane ukuya kutsho kweyona inde. - Abafundi mabathelekise ubude bezinto ezahlukileyo. Utitshala unika abantwana izijungqe zewulu okanye umtya.Bakhuthaze ukuba baqikelele phambi kokuba benze imilinganiselo. Abantwana mabathathe imilinganiselo: - Iintloko zabo. - Iinyawo zabo. - Amaqatha abo. - Izihlahla zabo. - Abafundi mabathelekise ubude obahlukileyo ngokubona ukuba zeziphi izijungqe zemitya ezidana okanye ezifutshanana umz.umlinganiselo womtya wentloko yam umdana kunalowo wesihlahla sam. - Abafundi mabaqiniseke ukuba uqikelelo lwabo lulungile kusini na.	Umtya Intambo Imicwe yelaphu Iikhrayoni ezinobude obahlukileyo Iwulu okanye umtya Abafundi	

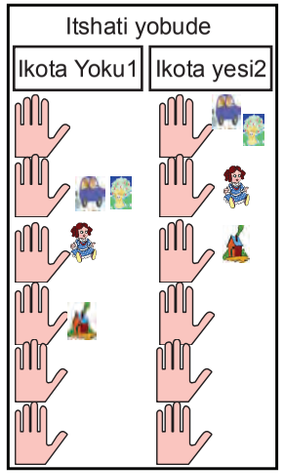
IVEKI YE-16	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	• **Fundisa intsingiselo yenani elingu -4** **Ngomlomo:** Bala izinto yonke imihla uye kuma ku-4 Bala usiya phambili ubale ubuya umva uye kuma ku- 4 Bala ngentloko ngokungenantsingiselo ukuqala ku-1-7	Izicengcelezo zokubala neengoma Imizimba yabafundi	Usuku olu-1
	Bethelela u –“ ninzi “no “mbalwa” Qhwaba izandla amaxesha amaninzi……YIMA Qhwaba izandla amaxesha ambalwa.Utitshala uqhwaba aye kui- 4 **Ukufunda usebenzisa intshukumo yomzimba** Abafundi mabenze oku: - Nqwala intloko amaxesha ama- 4. - Ababafundi mababonakalise u- 4 besebenzisa imizimba yabo. Mabaqiniseke ukuba bafuna abafundi aBangaphi. - Abafundi bavala amehlo abo.Utitshala ubetha etafileni amaxesha ama- 4.Abafundi bavula amehlo abo baxele ukuba bave izithonga ezingaphi.Phinda phinda ngamanani u-1 ukuya kwi- 4.		

IVEKI YE-16	**Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Abafundi mabenze oku: - Yenza u- 4 usebenzisa intlama yokudlala. - Khangela abahlobo bakhe aba- 4 abanxibe izihlangu. - Khangela izinto ezi- 4 ezingqukuva. - Gquma amehlo abafundi baze bachonge la manani: 1 ukuya kwi- 4 ngokuva/ ngokukhuphela ikhadi lamanani eliviwayo. - Bonakalisa ukuqonda amanani ngokuthi abafundi babeke izixhobo zokubala/izinto ezine ngeendlela ezahlukileyo.umz.  Xa ubala inani lezinto alichatshazelwa bubukhulu,indawo okanye uhlobo olunye.Umz: - Lungisa amaqhosha ama- 4, iipensile ezi- 4, izangqa ezi- 4, abafundi aba- 4 njl-njl. - Zibale ezi zinto ngeendlela ezahlukileyo umz. Zibale zithe saa, sisondelelene, zisemgceni okanye zibekwe enye phezu kwenye. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Abafundi mabenze oku: - Khangela imifanekiso emi- 4 uze uyincamathisele ephepheni. - Tshatisa inani lezinto namanani amachaphaza akunotsheluza. - Chonga unotsheluza onamachaphaza amane.	Intlama yokudlala Izinto ezingqukuva Yenza **ikhadi lamanani eliviwayo** ngokusika amanani kwiphepha lokukhuhla(sand paper) uze uwancamathisele kwikhadi-bhodi encinci.Ungawagquma ngeplastiki encamathelayo ukuze abafundi bakwazi ukwenza amanani omdongwe kula makhadi. Izinto zokubala ezi-4 okanye izinto ezine zomfundi ngamnye. Iimagazini,iiflaya,iintengiso Iphepha le A4 neglu **Umfanekiso wezinto ezi-4** 	Usuku olu-1

IVEKI YE-16	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.4 **Chaza,thelekisa uze ucwangcise amananani**	• **Sebenzisa inani elingu-4 kwiimeko eziqhelekileyo** - Ingaba inani elingu -4 likwenza ucinge ntoni? Imoto - amavili amane Isitulo - imilenze emine Inja - iintupha Itafile - imilenze emine - Ukukhulisa ukukhumbula,khuthaza abafundi ukuba bafunde ngentloko iinombolo zakumawabo negama lesitalato. **Izinto eziphathekayo ezinokwakheka kuka- 3-D** - Nika ithuba lokudlalwa kwemidlalo yamakhadi amanani yiklasi yonke. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Bonisa ikhadi elinesimboli yenani u- 4 Dlala imimdlalo efana nale: - Ukuba inombolo yendlu yakokweni unenani elingu-4, qhwaba ka-4. - Khangela umhlobo wakho onenombolo yendlu efanayo neyakokwenu. (Abafundi mababuzane iinombolo zamakhaya abo) - Ngubani onenombolo yakokwabo enamanani angaphezulu kwe-4? - Bonisa abafundi unotsheluza onamachaphaza amane. - Chonga unotsheluza onemifanekiso emine.	Iidilesi zamakhaya abafundi Abafundi **4** Imidlalo yamakhadi amanani nokuba yeyiphi na. **Umfanekiso wezinto ezi-4**  Oonotsheluza abanemifanekiso namachaphaza ama -4	Usuku olu-1-1

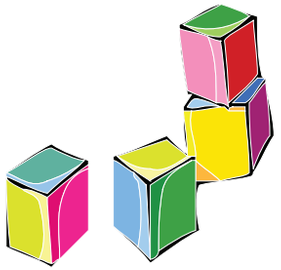
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ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
3.2 **Izinto ezinokwakheka kuka 3-D**	• **Ukuphononnga amathuba okwakha ngeebhloko** Abantwana mabenze oku: - Sebenzisa iibhloko ezi-4 ukwakha isakhiwo sakho. - Yakha isakhiwo esineebhloko ezintathu ukunyuka neebhloko ezi-5 ukunqamleza. - Sebenzisa iibhloko kangokuba befuna ukwakha uloliwe. - Chonga ukuba ngowuphi umntu owakhe oyena loliwe mde. - Yakha isakhiwo esiphakamileyo. - Yakha isakhiwo esithe tyaba umz .indlela okanye indlu. - Chonga ukuba ngubani owakhe esona sakhiwo siphakamileyo. - Nika abafundi iibhloko zokwakha ngexesha lokudlala ukuze bakwazi ukuqhubekeka beHlola iibhloko zokwakha.	Iibhloko zokwakha umz. 	Usuku olu-1
3.2 **Izinto ezinokwakheka kuka 2-D**	• **Khulisa ukukwazi ukohlula phakathi kweemilo kwizinto ezisingqongileyo, ngaphandle kobukhulu, okanye ubungakanani be-eengile.** **Ukufunda usebenzisa intshukumo yomzimba** Yahlula abafundi babe ngamaqela ama-3: - Lalani phantsi nize nenze unxantathu ngemizimba yenu. Yalatha ukuba noxa unxantathu weqela unemilo eyahlukileyo kwelinye yelinye iqela, imilo iseyileyo kanxantathu. - Utitshala uzoba oonxantathu abohlukileyo phantsi/emhlabeni umz.  - Abafundi bahamba ecaleni kwamacala emilo baze babe namava ee-engile ezahlukileyo ngemizimba yabo. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Sebenzisa amasebe asi-7 uze uwabeke emgceni 	Abafundi Amasebe asi-7 omfundi ngamnye	Usuku olu-1 Khetha umsebenzi ube mnye osebenzisa ukufunda usebenzisa intshukumo yomzimba, eziphathekayo nemifanekiso

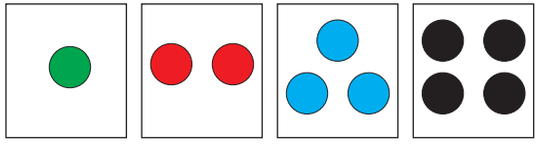
IVEKI YE-16	**Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe:** **Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki**		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
3.2 **Izinto ezinokwakheka kuka 2-D**	- Sebenzisa amasebe ukwenza umgca ogoso.  - Sebenzisa amasebe ukwenza uzigizegi.  - Sebenzisa amasebe ukwenza unxantathu.  - Yalatha ukuba oonxantathu babamntwana abafani kodwa ke imilo iseyileyo kanxantathu.		
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye iimifanekiso Utitshala uzoba kunotsheluza izangqa,oonxantathu nezikwere ezi-5 ezahlukileyo.umz  Utitshala wohlula abafundi babe ngamaqela. Abafundi maba: - Nakana oonotsheluza bakanxantathu phakathi kwezinye iimlo.	Amakhadi anezangqa,oonxantathu nezikwere ezi-5 ezahlukileyo.	

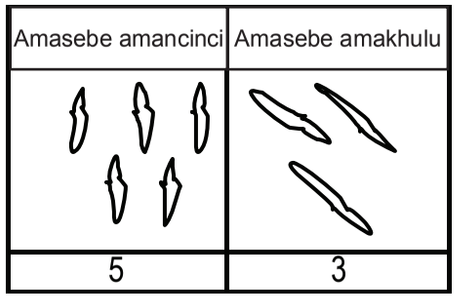
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ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
4.2 **Ubude**	**Thelekisa ngokwenza uze ucwangcise izinto usebenzisa isigama esifanelekileyo ukuchaza ubude.** - de, futshane, - ndana, mfutshanana, - eyona inde, eyona imfutshane, - futshane, mfutshanana, eyona imfutshane, - de, ndana, eyona inde - inde, imfutshane, - indana, imfutshanana, - eyona inde eyona imfutshane **Bethelela ubude** **Ukufunda usebenzisa intshukumo yomzimba** Ema kwenziwe ngabafundi: - Hlola ubude ngokuthi uthelekise ubude bezinto, kwenye. - Qonda ukuba yeyiphi eyona nto iyeyona inde okanye eyona imfutshane. - Thelekisa ubude babafundi ababini uze uchonge ukuba ngowuphi umfundi omfutshane ingowuphi omde. - Thelekisa ubude babafundi abaninzi kunesibini uze ubuze le mibuzo “ngowuphi oyena mfundi mfutshane, ngowuphi oyena mfundi mde. - Utitshala uthatha umlinganiselo wabafundi esebenzisa itshati yobude ebeyisebenzisa kwikota yoku- 1. - Utitshala ushiya imibhalo yekota edlulileyo apho abhale khona imilinganiselo yabantwana (izandla /iisimboli zabantwana) ukuze bakwazi ukuthelekisa imilinganiselo emibini. - Abafundi bafumanisa ukuba ingaba bakhulile ukusuka kwikota yoku- 1. - Ngubani ongakhange akhule? - Ngubani okhule kakhulu ukusuka kwikota yoku- 1? umz o USipho ukhule ngesandla esinye o Ubude buka Abby buyinto enye.	Ipensile,intambo, Umtya,ipegi Itshati yezandla  	Usuku olu-1

IVEKI YE- 17	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	• **Bethelela ulwazi alufumeneyo ngentsingiselo yenani u-4** **Ngomlomo:** Bala izinto yonke imihla uye kuma ku-4 Bala usiya phambili, ubale ubuya umva uye kuma ku-4 **Bethelela u –" ninzi "no "mbalwa"** Qhwaba izandla amaxesha amaninzi……YIMA Qhwaba izandla amaxesha ambalwa.Utitshala uqhwaba aye ku-4	lingoma zamanani nezicengcelezo	Usuku olu-1
	Ukufunda usebenzisa intshukumo yomzimba Abafundi: - Bhala u- 4 emoyeni usebenzisa umnwe - Cula ingoma umz. "amahotyazana **mane** emthini..... - Jikajika amaxesha ama- 4		
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Abafundi mabakhulise ulwazi lwabo lwamanani ngoku: - Zoba u-4 esantini. - Khangela izinto ezinokwakheka kuka 3-D ezikwazi ukuqengqeleka. - Yakha iipazili usebenzisa izicwili zephazili ezi- 4. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Utitshala ukhetha amagama ama- 4 konootsheluza.Utitshala ubonisa igama ngokukhawuleza aze enze njalo abonise umfanekiso wesilwanyana okanye into yokudlala. - Umfundi obekhethiwe ngokuthi kuboniswe igama lakhe ngokukhawuleza uyalelwa ukuba enze ingxolo eyenziwa yiloo nto yokudlala. - Phinda phinda ude ubonise onke loo magama. - Buza ukuba mangaphi amagama abafundi abonisiweyo.Zingaphi izinto zokudlala// izilwanyana abazibonileyo.	Itreyi yokubhaka emcaba/ibhokisi yesanti Izinto ezinokwakheka kuka 3-D ezikwazi ukuqengqeleka. Izicwili zepazili ezi- 4 Amakhadi anemifanekiso ezinto zokudlala. Amakhadi anemifanekiso ezilwanyana	

IVEKI YE- 17	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.3 **Iisimboli zamanani kunye namagama amanani**	• **Yazi iisimboli zamanani uze uqaphele igama lenani elingu-4** **Ngomlomo: Bala izinto yonke imihla uye kuma ku-4** Bala usiya phambili, ubale ubuya umva uye kuma ku-4	Iingoma zamanani nezicengcelezo	**Usuku olu-1**
	Bethelela u –“ ninzi “no “mbalwa” Qhwaba izandla amaxesha amaninzi……YIMA Qhwaba izandla amaxesha ambalwa.Utitshala uqhwaba aye ku -4 **Ukufunda usebenzisa intshukumo yomzimba** - Bhala inani u-4 emoyeni, phantsi, emqolo kumhlobo wakhe. - Phakamisa iminwe emi-4. - Utitshala ubetha igubu.Xa igubu liyeka abafundi bazahlula ngokwamaqela amane.		
	Ukusebenzisa imilo ezinokwakheka kuka 2-D okanye imifanekiso - Bonisa abafundi unotsheluza onesimboli ka-4. - Chonga igama lenani kunotsheluza. - Tshatisa igama lenani nenani elilinganayo lezinto.	Oonotsheluza abanesimboli yenani. Unotsheluza onegama lenani elingu-4 Izinto ezinokwakheka kuka 3-D **4** **ne**	

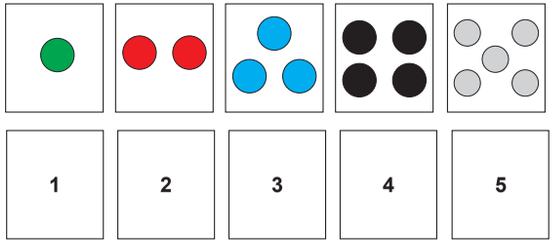
IVEKI YE- 17	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.7 **Ukudibanisa nokuthabatha**	• **Sombulula ngomlomo izibalo zamazwi (izibalo ezingamabali) aze anike isisombululo kwiingxaki ezinenani elingu-4.** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** **Imizekelo:** 1. Utitshala ukunika iibhloko ezi-2 ube wena uneebhloko ezi-2.Zingaphi iibhloko onazo ngoku? 2. Ukuba unezangqa ezibhlowu ezi-2 nezangqa ezi-2 ezibomvu, zingaphi izangqa zakho zizonke? 3. USipho uneekhrayoni ezi-4, uJoy unekhrayoni e-1. Ngubani onekhrayoni ezininzi? 4. Ukuba uJonga unoonodoli aba-4 aze alahlekelwe ngunodoli o-1.Bangaphi oonodoli abashiyekileyo? Hlula abafundi babe ngamaqela. - Nika iqela ngalinye izinto ezininzi.umz iipensile,ikhrayoni,iikomityi,iimilo.Abafundi mababelane ngezinto kumaqela onke (ungqinelwano lwamanani) - Buza imibuzo efana nale: “Ingaba zikhona izinto ezishiyekileyo?” - (Utitshala uqinisekisa ukuba kukho inani elininzi lezinto kunenani labafundi) Susa ezinye izinto ukubonisa ukwabelana ngokulinganayo)	 libhloko Ikhrayoni Izangqa ezibhlowu nezibomvu Oonodoli Izinto ezaneleyo zomfundi ngamnye ezifana neepensile, iikhrayoni, iikomityi, iimilo.	Usuku olu- 1

IVEKI YE- 17	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.4 **Chaza,thelekisa uze uhlele amanani**	• **Cwangcisa uze uthelekise ingqokelela yezinto usebenzisa u ngaphezulu kune, ngaphantsi kune, lingana ne ukuya kwinani elingu-4.** Hlula abafundi ngokwamaqela: - Utitshala unika iqela ngalinye izixhobo zokubala ezi-4 nezijungqe zewulu ezi-2. Amaqela mawenze oku: - Yila izangqa ezibini (iiseti) ngewulu. - Ngokomyalelo katitshala babeka izixhobo zokubala kwiseti nganye. - Amalungu eqela achonga iseti enezinto zokubala ezininzi kunye (ngaphezulu kune) - Sesiphi isangqa esinezinto zokubala ezingaphantsi kunesinye.(ngaphantsi kune) - Sesiphi isangqa esinenani elilinganayo nesinye isangqa? (lingana ne) **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Lungisa iseti yamakhadi emifanekiso ngendlela efanelekileyo.umz **Umfanekiso wento e-1** **Umfanekiso wezinto ezi-2** **Umfanekiso wezinto-3** **Umfanekiso wezinto-4** Lungisa iseti yamakhadi amachaphaza ngendlela efanelekileyo umz.  - Buza imibuzo efana nale “Leliphi ikhadi elinezinto/amachaphaza amaninzi? - Leliphi inani elingaphezulu kwe -2 njl-njl.	Iwulu/umtya Izixhobo zokubala ezi- 4	Usuku olu-1

IVEKI YE- 17	Ixesha lokufundisa ekucetyiswa into yokuba lisetyenziswe: Iplani ekhokelwa ngutitshala enemisebenzi yeklasi eyimizuzu engama 30 ngosuku (5 ezemisebenzi ye mathematika ngeveki		
ISIHLOKO	**Amanqaku angcaciso**	**Izixhobo zokufundisa ekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
5.1 **Qokelela uze uhlele izinto**	• **Khulisa indlela yokusebenza ngolwazi oluqokelelweyo** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Abafundi mabaqokelele amasebe ali-9. - Hlela amasebe ngokobuncinci nobukhulu.	Abafundi baqokelela amasebe	Usuku olu-1
5.2 **Bonisa ingqokelela yezinto ezihleliweyo**	**Zoba igrafu ukubonisa ulwazi** **limilo ezinokwakheka kuka 2-D okanye imifanekiso** - Yenza igrafu yemifanekiso enamasebe. - Abafundi babeka amasebe kwigrafu yemifanekiso ngokobungakanani-ncinci/nkulu.  	Iphepha lokufunda legrafu yemifanekiso. Utitshala uyilela abafundi iphepha lika A4 elinemiqolo efanelekileyo.	
5.3 **Xoxa uze unikezele ingxelo ngezinto ezihleliweyo**	**Funda uze utolike igrafu** Thetha ngeziphumo ngokubuza imibuzo umz.Mangaphi amasebe amancinci? Mangaphi amasebe amakhulu? Ngawaphi awona maninzi/mbala?		

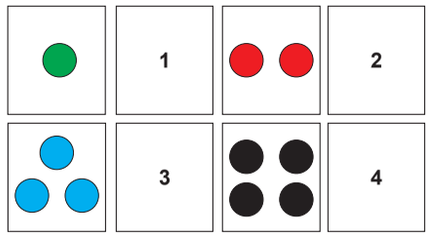
Iveki ye- 18	**Ixesha Lokufundisa Elicetyisiweyo :** **Umsetyenzana omnye weplani ekhokelwe ngutitshala (isangqa) owe ± 30 imizuzu ngosuku (± 5 imisetyenzana yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundis aekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	• **Bethelela ulwazi olufunyenwe kuqukwa amanani 1, 2, 3 no -4** **Ngomlomo:** bala izinto zemihla ngemihla ukuya ku-4 Bala usiya phambili, ubale ubuya umva ukuya ku-4	 Iingoma zamanani neemvano-siphelo	Usuku olu- 1
	Ukubala ngentloko ngokungena ntsingiselo 1-7 **Bethelela isigama 'ninzi" no "mbalwa"** Qhwaba izandla kaninzi …….YIMA Qhwaba izandla kambalwa. Utitshala uqhwaba ka- 4.		
	Ukufunda usebenzisa intshukumo yomzimba Abafundi maba: - Cinezele inani-1 esibhakabhakeni besebenzisa iminwe. - Abafundi mababambe iintloko zabo kabini. - Babambe izandla nabanye abafundi abane. - Vala amehlo abafundi uthi mabachonge amanani 1-4 ngokulandela abakuvayo xa becinezela koonetsheluza bamagama	 Itreyi /ibhokisi enesanti Iseti yonootsheluza bamagama (likhadi zamanani)	
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Abafundi maba**:** - Zobe inani lokuqala esantini. - Fumane u-3 kwizinto ezifanayo. - Xhuma-xhuma endaweninye kabini. - Yakha iiphazili ngezijungqe ezi-4 nangaphezulu.	 Neziphi izinto Abafundi Iiphazili zezijungqe ezi-4	
1.11 **Imali**	• **Ukunakana nokuchonga imali eziinkozo/umwangalala yaseMzantsi Afrika** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Yenza abafundi baqonde imifanekiso eyahlukileyo yezilwanyana nezityalo emalini ezinkozo. - Ukubekeleleka kwemali kungasetyenziswa kwikona yeZakhono zoBomi apho abafundi banokudlala khona ivenkile. Ngomdlalo abafundi baphicothe iindidi zemali eziinkozo.	 5c,10c,20c,50c,R1,00,R2,00 and R5,00 imali ezinkozo (imali yokudlala okanye imali yakwenyani)	Usuku olu- 1

Iveki ye- 18	**Ixesha Lokufundisa Elicetyisiweyo :** **Umsetyenzana omnye weplani ekhokelwe ngutitshala (isangqa) owe ± 30 imizuzu ngosuku (± 5 imisetyenzana yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundis aekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.7 **Ukudibanisa nokuthabatha**	**Ukusombulula izibalo zokudibanisa nezokuthabatha ezichazwe ngomlomo ukuya ku-4** **Ngomlomo:** bala izinto zemihla ngemihla ukuya ku-4 . Bala ukuya phambili, ubale ukubuya umva ukuya ku-4 . Ukubala ngentloko ngokungenantsingiselo 1-7 **Bethelela isigama 'ninzi" no "mbalwa"** Qhwaba izandla kaninzi …….YIMA Qhwaba izandla kambalwa. Utitshala uqhwaba ka- 4.**Ukufunda usebenzisa intshukumo yomzimba** **Imizekelo:** - Utitshala ubizela umfundi phambi kwekasi. Aphinde abize abanye abathathu. Ubize abafundi aBangaphi xa bebonke? - Utitshala upakisha izinto zokubala ezithathu. Wongeza enye. Zingaphi izinto zokubala eziphezu kwetafile? - Abafundi bama phambi kweklasi. Utitshala ucela umfundi omnye ahlale phantsi. Bangaphi abafundi abaphambi kweklasi ngoku? - UBusi uneepensile ezi- 4. Unika uWelile iipensile ezi-2.UBusi ushiyeke neepensile ezingaphi?	Iingoma zamanani neemvano-siphelo Abafundi Izinto zokubala Iipensile Sebenzisa iindidi ngeendidi zezixhobo ukukunika amacebo okusebenzisa iindlela ezahlukileyo zokufundisa.	Usuku olu- 1

Iveki ye- 18	**Ixesha Lokufundisa Elicetyisiweyo :** **Umsetyenzana omnye weplani ekhokelwe ngutitshala (isangqa) owe ± 30 imizuzu ngosuku (± 5 imisetyenzana yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundis aekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.4 **Chaza,thelekisa uze ulandelelanise amanani**	• **Landelelanisa uthelekise ingqokelela zezinto ngokusebenzisa “ninzi kune, mbalwa kune” no”lingana ne” ukuya kwinani lesi-4** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Utitshala unika ilungu ngalinye leqela inani elithile leekhrayoni. - Amalungu eqela makachonge oyena mfundi oneekhrayoni ezininzi kwezabanye. - Ngowuphi umfundi oneekhrayoni ezimbalwa kunezabanye ? - Ngabaphi abafundi abanamanani alinganayo eekhrayoni ? **Ukusebenzisa iimilo ezinokwakheka kuka 2-D/imifanekiso** - Cwangcisa iiseti zoonotsheluza bamanani aquka amanani 1-5 ngokulandelelana, umzekelo,  - Buza imbuzo efana noku “ ngabaphi oonotsheluza abanezinto ezininzi ?” - Leliphi inani elikhulu kune-2 ? njalo njalo,	iikhrayoni Oonotsheluza bamanani namachaphaza	Usuku olu- 1

Iveki ye- 18	**Ixesha Lokufundisa Elicetyisiweyo :** **Umsetyenzana omnye weplani ekhokelwe ngutitshala (isangqa) owe ± 30 imizuzu ngosuku (± 5 imisetyenzana yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundis aekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
2.1 **Iipateni zejiyometri**	• **Khuphela ugqibezele ipateni enikiweyo ngemali eziinkozo/mwangalala.** **Khuphela ipateni enikiweyo** - Utitshala useta ipateni esebenzisa " imali yokudlala" , umzekelo, 5c, 5c, 5c, 10c, 10c,10c,20c, 20c, 20c Abafundi maba: - Khuphele iipateni ezininzi eziyilwe ngutitshala. **Gqibezela ipateni enikiweyo** Abafundi maba: - Gqibezele iipateni ezininzi eziyilwe ngutitshala, umzekelo, o 5c, 5c, 10c, 10c,…… o 5c, 10c,…… o 10c, ,20c…….njalo njalo	Imali yokudlala okanye imali yokwenyani (5c,10c,20c)	Usuku olu- 1

Iveki ye- 19	**Ixesha lokufundisa elicetyisiweyo:** **Umsetyenzana omnye weplani ekhokelwe ngutitshala (isanqa) owe ± 30 imizuzu ngosuku (± 5 imisetyenzana yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundis aekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	• **Bethelela ulwazi olufunyenweyo oluquka amanani 1, 2, 3 no 4.** **Ngomlomo I:** bala izibali zemihla ngemihla ukuya ku-4**.** Bala ukuya phambili, ubale ukubuya ukubuya umva ukuya ku-4. Ukubala ngentloko okungenantsingiselo 1-7 **Bethelela "ninzi" no "mbalwa" .** Qhwaba izandla amaxesha amaninzi …….YIMA . Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba amatyeli ama- 4	Iingoma zamanani neemvano-siphelo.	Usuku olu- 1
	Ukufunda usebenzisa intshukumo yomzimba **Utitshala uphakamisa unotsheluza wamanani onenani elingu-3 athi kubafundi:** - Ndidinga amakhwenke alinani elithile. - Ephakamise inani- 2 esithi, ndidinga inani lamantombazana alinani elithile. - Yakhani amaqela (ephakamise inani-2). - Phinda umsetyenzana ngoonotsheluza abanenani ku-1-4	Unotsheluza wesimboli yamanani enamanani 1-4 Umzekelo, **3**	
1.16 **Izibalo zentloko**	**Izibalo zentloko** Utitshala uphakamisa unotsheluza wenani -3 abuze abafundi: - Leliphi eli nani? - Leliphi inani eliza phambi kuka-3? - Leliphi inani elilandela emva kuka-3? - Phinda ngamanani u1-4 . - Ungandibonisa na unotsheluza onenani elifana nenani lamachaphaza akulo unotsheluza?	Iseti yoonotsheluza bemifanekiso namachaphaza ukusuka ku1-4	

Iveki ye- 19	Ixesha lokufundisa elicetyisiweyo: Umsetyenzana omnye weplani ekhokelwe ngutitshala (isanqa) owe ± 30 imizuzu ngosuku (± 5 imisetyenzana yeMathematika ngeveki)		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundis aekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.16 **Izibalo zentloko**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Utitshala uqhwaba ngesingqisho ngokucotha ukubonakalisa inani. Abafundi mabakhuphe amaso alingana nelo nani bawabonise, umzekelo, amaso a-4. - Abafundi mababeke amaso a-1, 2, 3 okanye 4 phambi kwabo. - Abafundi mababonise ukuba mangaphi amaso abanayo ngokuwathelekisa nonotsheluza, umzekelo, amaso a-4 nenani -4. - Mabakhangele omnye umfundi onenani elifanayo lamaso. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D/imifanekiso** Utitshala uphakamisa unotsheluza wamanani enziwe ngamachaphaza wenani - 2 abuze kubafundi: - Mangaphi amachaphaza kulo notsheluza? - La machaphaza amele eliphi inani? - Leliphi inani elilandela eli? - Mababale elonani lamachaphaza emaphepheni abo.	Amaso ama-4 kumfundi ngamnye Oonotsheluza bamanani 1,2,3 no 4 Oonotsheluza bamachaphaza 	

Iveki ye- 19	**Ixesha lokufundisa elicetyisiweyo:** **Umsetyenzana omnye weplani ekhokelwe ngutitshala (isanqa) owe ± 30 imizuzu ngosuku (± 5 imisetyenzana yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundis aekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.7 **Ukudibanisa nokuthabatha**	• **Ukusombulula izibalo zokudibanisa nokuthabatha ngomlomo nezisombululo ukuya ku-4** Ukufunda usebenzisa intshukumo yomzimba - Bizela abafundi abathathu ngaphambili. Babale. - Biza omnye umfundi. Bangaphi xa bebonke? 3 no 1→4 (untathu nonye banika 4) - Buyisela abafundi aba -3 emva ekhapethni. Bangaphi abafundi abakhoyo ngoku? 4 thabatha 3→1 Yohlula abafundi ngokwamaqela. Buza imibuzo efana nale: - Zingaphi iimpumlo ozibonayo eqeleni lakho? - Mingaphi imilomo? - Mingaphi imizimba: - Kubafundi ababini, mangaphi amehlo? - Kubafundi ababini, mingaphi imilenze? **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** 1. Utata kaLindiwe unemoto. Mangaphi amavili akulo moto? 2. Xa kuphantshe ivili elinye lakhutshwa emotweni, kushiyeke amavili amangaphi? 3. Inkukhu inamantshontsho ama- 4. Ama- 2 alahleka. Mangaphi akhoyo enkukhwini? 4. Isikhukukazi sifumana amantshontsho aso ebelahlekile. Sinamantshontsho amangaphi ngoku?	Izinto zokubala Sebenzisa iindidi zezixhobo ukwazi ukuba namava okusebenzisa iindlela ezininzi zokufundisa. Izinto zokubala	Usuku olu- 1

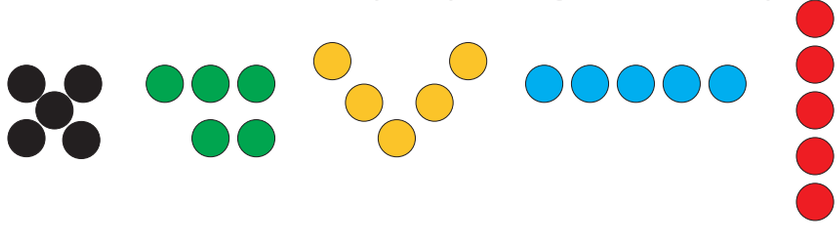
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Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundis aekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.4 **Chaza,thelekisa uze ulandelelanise amanani**	• **Landelelanisa uthelekise iingqokelela zezinto ngokusebenzisa "ninzi kune, ncinci kune" ne "lingana ne" kwinani -4** **Ukufunda usebenzisa intshukumo yomzimba** - Utitshala ubeka iindidi zeezinto phezu kwetafile, umzekelo, iikhrayoni ezimbini, iibhloko ezi-4 ezifanayo, iinkonkxa ezi-3, iincwadi ezi-2. Abafundi maba: - Bale inani leekhrayoni neenkonkxa. Ingaba iikhrayoni zininzi kuneenkonkxa? - Bale inani leebloko neleencwadi. Ingaba iibhloko zimbalwa kuneencwadi? Ingaba iibhloko zininzi kuneencwadi? - Bale inani leencwadi neleekhrayoni. Ingaba ayalingana amanani ezinto okanye hayi?	Iikhrayoni, iibloko, iinkonkxa, iincwadi.	Usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D - Abafundi mabahlale ekhaphethini banikwe inani lezinto zokubala umfundi ngamnye. - Umfundi ngamnye makabe nenani elahlukileyo lezinto zokubala. - Ababafundi mababeke izinto zokubala phambi kwabo. Utitshala ubuza abafundi: o Ngoobani abanezinto zokubala ezininzi? o Ngoobani abanezinto zokubala ezimbalwa? o Ngoobani abanezinto zokubala ezilinganayo?	Izinto zokubala Utitshala unika umfundi ngamnye izinto zokubala zamanani ahlukileyo ukuya ku-4	
3.3 **Izinto ezinokwakheka kuka 2-D**	**Nakana, chonga, uchaze imilo ezinokwakheka kuka 2-D eklasini nakwimifanekiso** • **Yila ugqibe iphazili yezijungqe ezi- 4** (Nxibelelanisa noBuchule boKubonwayo) Abafundi maba: - Zobe umfanekiso ephepheni le A4. - Utitshala uzoba imigca emva komzobo womfundi. - Umfundi usika umfanekiso kwimigca ebonisiweyo. - Umfundi ugqibezela/wakha eyakhe iphazili.	imizobo yabafundi 	Usuku olu- 1

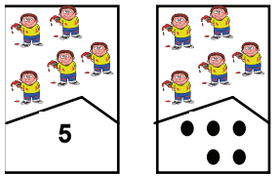
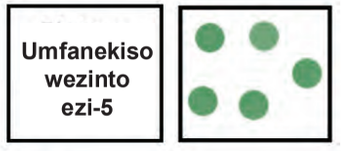
Iveki ye- 19	**Ixesha lokufundisa elicetyisiweyo:** **Umsetyenzana omnye weplani ekhokelwe ngutitshala (isanqa) owe ± 30 imizuzu ngosuku (± 5 imisetyenzana yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundis aekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
4.1 **Ixesha**	• **Yakha ukuqwalasela okwenzekayo phakathi kwesidlo sasebusuku nexesha lokulala** (Nxulumanisa nezihloko zoLwazi olusisiseko kwiZakhono zoBomi) Abafundi maba: - Thethe ngabakwenzayo emva kwesidlo sasebusuku. - Thethe ngokwenzekayo emakhaya emva kwesidlo sasebusuku. Utitshala ubuza: - ‘’ uza esikolweni ekuseni okanye ebusuku?” - Ukuba uNcedo ufika esikolweni emva kokukhala kwentsimbi, ufike emva kwexesha okanye phambi kwexesha? - Ilanga libaphi ebusuku?”	Imifanekiso ebonisa okwenzekayo ukusuka ngexesha lesidlo sasebusuku ukuya kwixesha lokulala.  	Usuku olu- 1
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso - Abafundi bazoba umfanekiso ukubonisa nayiphi into eyenzeka emva kwesidlo sasebusuku. - Nika iiphazili ezibonisa ukulandelelana kweziganeko/imisebenzi.	Iphepha neekhrayoni	

Iveki yama- 20 Sebenzisa iveki yama- 20 ukuhoya izithinteli kufunda		
Umxholo	**Isihloko**	**Iindlela zokuHlola**
Amanani, ii-opareyishini noLwalamano	**1.1** **Bala izinto**	Qikelela nokubala ngentloko ngokungenantsingiselo ukuya ku-7 (iingoma zamanani nezicengcelezo eziquka ukukhulisa ingqiqo yamanani)
		Bala ubuya umva nokubala usiya phambili (1-4)
		Qonda iingqiqo “ninzi no mbalwa” (ukuqhwaba)
		Nakana amanani kwiimeko eziqhelekileyo,umzekelo, inani lendlu, idilesi
		Chonga imifanekiso yamanani namakhadi anamachaphaza
		Zazi iisimboli zamanani 1, 2, 3 ,4
		Nakana amagama amanani u-bini, ntathu kunye no-ne
		Qonda ukuhambelana kwamanani (Itshati yabancedisi ngexesha lokutya)
		Yahlula phakathi kuka ninzi, ncinci, linganayo, ninzi nombalwa ukuya ku-4
		Nakana iindidi zemali eziinkozo zaseMzantsi Afrika
	1.6. **Ubuchule/iindlela zokusombulula iingxaki zezibalo**	Sebenzisa izixhobo ezibonakalayo Chaza iingcinga zakho ngamagama nangemizobo okanye izinto ezibonakalayo
	1.7. **Ukudibanisa nokuthabatha**	Sombulula iingxazi zokudibanisa nokuthabatha ngomlomo
liPateni neeFankshini	**2.1.** **Iipateni zejiyometri**	Kopa, yandisa, uze uyile iipateni zakho (izinto, iimilo nemali yenkozo)

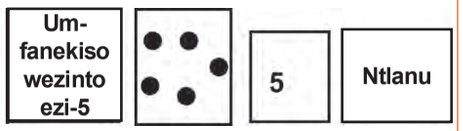
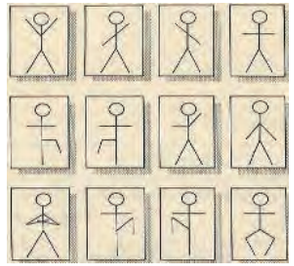
Iveki yama- 20 Sebenzisa iveki yama- 20 ukuhoya izithinteli kufunda		
Umxholo	**Isihloko**	**Iindlela zokuHlola**
Isithuba nemilo (Ijiyometri)	**3.1.** **Indawo-bume,ukufumana indawo nembonakalo**	Qonda indawo-bume yenzinto ezimbini nangaphezulu ngokunxulumene nomfundi ngaphezulu ,ngaphantsi
	3.2. **Iimilo enokwakheka kuka 2-D**	Yakha iphazili ubuncinane ezili-12
		Bonakalisa ulwazi lokwahlula phakathi kwezinto ezingaphambili nezingasemva (phinda uhlole)
		Nakana, chonga uxele oonxantathu
		Qonda imilo kanxantathu (ukuqonda iimilo)
	3.2 **.Izinto ezinokwakheka kuka 3-D**	Thelekisa yeyiphi kwezimbini ezinikiweyo iingqokelela yezinto ezinde,ezindana; mfutshane/ mfutshanana
		Hlela izinto ngokobukhulu- ubude nobufutshane
		Imibala –(bomvu, mthumbi, bhlowu noluhlaza)
		Imilo
		Sebenza ngobuchule ngeebhloko ezakhayo
	3.4 **Ulingano- macala**	Nakana umgca wolingano- macala kuye nakokumngqongileyo
		Ukukwazi ukuwela umgca ophakathi
Umlinganiso	**4.1** **Ixesha**	Qonda iintsuku zeveki, amaxesha onyaka netshati yemozulu (iingoma nezicengcelezo – phinda uhlole)
		Yazi usuku lwakhe lokuzalwa (phinda uhlole)
	4.2 **Ubude**	Ukwahlula phakathi kweyona inde, eyona imfutshane, endana, emfutshanana (itshati yobude)
Ukusebenza ngolwazi oluqokelelweyo.	**5.1** **Qokelela uze uhlele izinto**	Ukwazi ukuqokelela, ukuhlela, ukuzoba, ukufunda nokubonisa (calula) izinto ngongophawu oluye
	5.2 **Bonisa ingqokelela yezinto ezihleliweyo**	
	5.3 **Xoxa uze unike ingxelo ngengqokelela yezinto ezihleliweyo**	

IKOTA YESI- 3 IMATHEMATIKA ISIGABA SABAQALAYO			
Iveki yama - 21	**Ixesha lokufundisa elicetyisiweyo:** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundisaekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.1 **Ukubala izinto**	• **Fundisa intsingiselo yenani 5** **Ngomlomo:** Bala izinto zemihla ngemihla ukuya ku -5. Bala ukuya phambili nokuya emva ukuya ku -5. Bala ngentloko ngokungenantsingiselo 1-10 **Bethelela ukubala ngolandelelwano**: Utitshala ubala izinto ezi- 3 ngokulandelelana. Khomba kwizinto nganye ubala eyokuqala, eyesibini, eyesithathu. **Bethelela isigama "ninzi" no"mbalwa".** Qhwabani izandla kaninzi…..YIMA Qhwaba izandla kambalwa. Utitshala uqhwaba izandla ka- 5. Buza inani eliqhwatywe kaninzi okanye kambalwa	Iingoma zamanani nezicengcelelzo Ukubala imvano-siphelo neengoma, umzekelo, "limfenana ezintathu zixhumaxhuma phezu kwebhedi". Izinto ezi-3	usuku olu- 1
	Ukufunda usebenzisa intshukumo yomzimba Khuthaza abafundi ukufumana inani -5 ngoku: - Qhwaba izandla ka -5. - Fumana ukuba bangaphi abafundi eklasini abane minyaka e -5.		

Iveki yama - 21	**Ixesha lokufundisa elicetyisiweyo:** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundisaekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.16 **Izibalo zentloko**	**Ukubala ngentloko** - Utitshala uqhwaba izandla zakhe ngesingqi engangxamanga kahlanu ukubonisa inani -5. Abafundi mabakhuphe inani lezinto zokubala ezi - 5 bazibonise. - Abafundi bapakisha izinto zokubala ezi- 5 ngokulandelelanayo bazibale. - Utitshala uyabuza: - Leliphi inani eliza phambi kwenani -5? - Leliphi eliza emva ko-4, njalo njalo? - Xa unee- apile ezi-5 waphisa ngezi -2,zingaphi ezishiyekileyo? - Bonisa ngeminwe. - Uneenzwane ezingaphi kunyawo olu-1?	Izikhongozeli ezinezinto zokubala	usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Abafundi bakha ulwazi lwamanani ngo: - Kwakha inani -5 besebenzisa udongwe lokudlala. - Chola amagqabi a-5. - Bala izinto bezitshatisa nezinto zokubala. - Yakha uqwalaselo lokulondoloza amanani ngokuthi abafundi maba - Pakishe izinto zokubala ezi- 5 okanye ezinye izinto ngeendlela ezahlukileyo,umzekelo,  Xa kubalwa inani lezinto alichatshazelwa bubukhulu balo, okanye indawo, okanye luhlobo olunye, umzekelo, - Cwangcisa amaqhosha a-5, iipensile ezi-5, iihula-hupu ezi-5, abafundi aba-5, njalo njalo. - Zibale ngendlela eyahlukileyo,umzekelo, zibale zisasazekile, zidibene, zisemgceni okanye zipakishiwe	Udongwe okanye udongwe lokudlala Amagqabi	

Iveki yama - 21	**Ixesha lokufundisa elicetyisiweyo:** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundisaekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.4 **Chaza,uthelekise uze ulandelelanise amanani**	• **Khulisa ukukhumbula uze ukhuthaze abafundi ukukhumbula ngentloko amanani ezindlu, iidilesi neenombolo zefowuni.** Dlala imidlalo enje ngale ilandelayo: - Utitshala ubiza inani lendlu, idilesi okanye inombolo yefowuni yomfundi. Umfundi elilelakhe inani lendlu okanye idilesi kufuneka aphendule. - Xa utitshala esenza irejista yabafundi abakhoyo makabuze imibuzo efana nale: “ ingaba umfundi oneli nani lefowuni ukhona namhlanje: 435-6256?” “ ingaba umfundi ohlala eMandela Drive 123 ukhona namhlanje?” - Abafundi basebenzisa oonotsheluza beesimboli zamanani ukupakisha amanani abo ezindlu okanye awefowuni ngokulandelelana nokuba ayichanekanga. - Linganisa iincoko kwifowuni yokudlala. Abafundi bafowunela umntu obalulekileyo. Nxulumanisa nobuchule bokwenza(idrama) kwiZakhono zoBomi	Ifowuni makube yeyomzali yaye isenokuba yinombolo yecell phone Irejista yobukho . Unotsheluza weesimboli zamanani okanye iisimboli zamanani ezinkulu ezenziwe ngekhadibhodi. Ifowuni yokudlala	usuku olu- 1
	Ukusebenzisa iimilo enokwakheka kuka 2-D/imifanekiso Utitshala ubonisa abafundi: - Iindidi zemidiya apho kufumaneka inani -5,umzekelo, oonotsheluza beentsuku zokuzalwa, amaphepha –ndaba, iimagazini, iiflaya, umzekelo, njalo njalo. - Unotsheluza onamachaphaza ama -5 nonotsheluza wemifanekiso emi-5. - Abafundi mabahlanganise unotsheluza wemifanekiso nowamachaphaza ngamanani alinganayo ezibali okanye izinto. - Yakha iiphazili zamanani ezinenani -5,umzekelo 	Amakhadi eentsuku zokuzalwa Amaphephandaba, iimagazini Oonotsheluza abanamachaphaza ama-5 Oonotsheluza abanemifanekiso emi- 5 ezinto Izinto zokubala 	

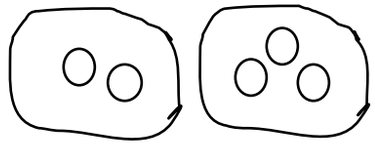
Iveki yama - 21	**Ixesha lokufundisa elicetyisiweyo:** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundisaekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
1.3 **Iisimbolo zamanani kunye namagama amanani**	• **Zazi iisimboli zamanani namagama amanani eziquka inani -5** **Ngomlomo:** Bala ukuya phambili nokubuya umva ukuya ku-5 Ukubala ngentloko ngokungenantsingiselo 1-10 **Ukufunda usebenzisa intshukumo yomzimba** - Iklasi yonke mayihlale kwisangqa. - Nombola abafundi ngokwepateni. 1, 2, 3, 4, 5 1, 2, 3, 4, 5 - 1, 2, 3, 4, 5 . - Buza imibuzo enje ngale; “ ngubani ozakuba yinombolo-5 elandelayo ? “ ngubani ozakuba yinombolo-4 elandelayo? - Uyisombulule njani le ngxaki? - (Abafundi basombulula ingxaki ngendlela yokucingela inani elilandelayo ngokuqhubekeka ngokubala)	Iingoma zamanani neemvano-siphelo	Usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D - Sebenzisa amakhadi amanani aviwa ngesandla (itactile number cards) eziquka amanani 1-5. - Abafundi bavala amehlo beve inani- 5 ngokusebenzisa iminwe kwiisimboli zamanani. Nika abafundi izinto zokubala ezi-5 umfundi ngamnye neekomityi ezimbini okanye izikhongozeli ezibini zamaqanda. - Buza abafundi: “ ungazicwangcisa njani ezi zinto zokubala kwizikhongozeli ezibini?  	Amakhadi amanani aviwa ngesandla (Tactile number cards) ngenani -5	

Iveki yama - 21	**Ixesha lokufundisa elicetyisiweyo:** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundisaekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
	Ukusebenzisa iimilo okanye imifanekiso enokwakheka kuka 2-D Yenza abafundi ba: - Chonga oonotsheluza abanemifanekiso emi-5 . - Chonga oonotsheluza abanamachaphaza ama-5. - Chonga isimboli -5 apho ibonakala khona eklasini. - Chonga isimboli yenani kunotsheluza. Nakana igama lenani kunotsheluza. - Hlanganisa inani lesibali negama lenani nesimboli yenani ngokupakisha into yokubala kunotsheluza ngamnye womfanekiso nowamachaphaza .	Oonotsheluza bemifanekiso, amachaphaza, iisimboli zamanani nezamagama amanani Izibali ezi-5 	
3.4 **Ulingano-macala**	• **Ukubethelela umgca wolingano- macala kuye ngokwenza izinto ezikhuthazela ukuwelwa komgca ophakathi** **Ukufunda usebenzisa intshukumo yomzimba** Abafundi maba: - Dlala umdlalo wokulandela inkokheli apho abafundi balinganisa ubume kwitshati. - Dlala umdlalo wokulandela inkokheli apho utitshala abonisa ubume nabafundi bamlinganise. (iquka ukuwela umgca ophakathi, umzekelo, phatha idolo lasekhohlo ngesandla sasekunene) - Dlala umdlalo wokulandela inkokheli apho umfundi abonisa ubume abanye bamlinganise. - Utitshala ubonisa ukutsiba-tsiba nabafundi bakhuthazwe ukulinganisa utitshala. **Ukusebenzisa zinto eziphathakayo ezinokwakheka kuka 3-D** Abafundi maba: - Beke ibhinbhegi ekhohlo, ekunene,ngaphambili nangasemva komzimba. - Sebenzise isandla sasekhohlo ubeke ibhinbhegi ngasekunene komzimba wakhe. - Zolule ukwela umgca ophakathi. - Phinda enze ngesandla sasekunene. Nxulumanisa nemiThambo kwiZakhono zoBomi		Usuku olu- 1 Emva koko, ngokuqhubekayo ngexesha lokudlala nangexesha lemisebenzi yokukhulisa umzimba

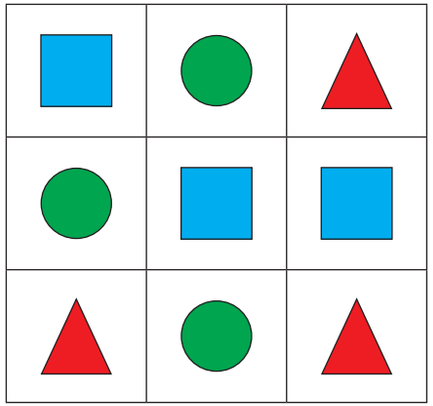
Iveki yama - 21	**Ixesha lokufundisa elicetyisiweyo:** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo zokufundisaekucetyiswa ukuba zisetyenziswe**	**Ixesha elisondeleyo**
4.2 **Ubude**	• **Qikelela ulinganise ubude bezinto ezahlukileyo usebetyenzisa iinyawo, izandla, umtya, amakhuni, njl njl.** **Ukufunda usebenzisa intshukumo yomzimba** Abafundi maba: - Thelekise ubude beenyawo nezandla zabo . - Abafundi mabaqikelele yeyiphi izinto ende yeyiphi emfutshane ngokulinganisa iinyawo okanye izandla zabo,umzekelo, itafile okanye isijungqe sethumbu lasekhaya. - Qikelele ukuba yeyiphi into ende kakhulu okanye emfutshane kakhulu, umzekelo, indlela yeenyawo okanye umgca wezitena. - Abafundi mabaqikelele ukuba yeyiphi ende kunenye, umzekelo, iklasi okanye igumbi lootitshala. - Buza imbuzo enje nge: “yeyiphi endana/ende kakhulu, ipensile okanye umtya?	Izinto ezinobude obuhlukeneyo ezinokulinganiswa ngesandla okanye ngeenyawo,umzekelo, irula, itafile, ucango, izitena, ipali yeempondozebhola, iklasi, ilayibhrari, njl. njl.	Usuku olu- 1

Iveki yama- 22	**Ixesha lokufundisa elicetyisiweyo** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amangqaku angangcaciso**	**Izixhobo ezicetyisiweyo**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	• **Ukubethelela ulwazi olufumanekayo oluquka inana u- 5** **Ngomlomo:** Bala izinto zemihla ngemihla ukuya ku -5 Bala ukuya phambili nokubuya umva ukuya ku -5 Ukubala ngentloko okungenantsingiselo 1-10 **Bethelela isigama "ninzi" no "mbalwa ".** Qhwaba izandla amatyeli amaninzi.....YIMA. Qhwaba izandla kambalwa. Utitshala uqhwaba kahlanu Buza umbuzo:" Leliphi inani elibe lininzi/elibe mbalwa lokuqhwaba?"	Iingoma zamanani nezicengcelezo umzekelo, Izicengcelezo neengoma zokubala "1,2,3,4,5 "	usuku olu- 1
	Ukufunda usebenzisa intshukumo yomzimba Khuthaza abafundi ukufumana inani -5 ngoku: - Bonisa iminwe emihlanu emoyeni. - Fumana izinto ezi-5 ezibomvu, bhlowu, mthubi, luhlaza. - Fumana izinto ezi -5 ezibonakala okwesangqa, isikwere, unxantathu.	Izinto zokubala	
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Abafundi mabakhe ulwazi lwamanani ngoku: - Landa iincwadi ezi-5 kwikona yeencwadi - Ukwakha iincochoyi ngeebhloko ezi-5.	Iincwadi Iibhoko zokwakha okanye iityhubhu zeyunifekisi (unifix tubes)	

Iveki yama- 22	**Ixesha lokufundisa elicetyisiweyo** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amangqaku angangcaciso**	**Izixhobo ezicetyisiweyo**	**Ixesha elisondeleyo**
1.7 **Ukudibanisa nokuthabatha**	• **Ukusombulula iingxaki zezibalo ngomlomo (izibalo zamazwi)nokucacisa izisombululo kwiingxaki eziquka inani -5** **Ukufunda usebenzisa intshukumo yomzimba:** - Bizela abafundi aba-5 ngaphambili. - Yabela abafundi aba-5 izitulo ezi-5 ngokulinganayo. - Thatha isitulo esinye. Yaba izitulo ezishiyekileyo kubafundi abahlanu. Umfundi omnye ushiyeka engena situlo. - Qala ku-5. Bala ubuya umva. Qala ku -3. Balela ku -5. Qala ku-1. Balela ku-4 , njl njl. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** **Imizekelo:** 1. Bonisa umnwe omnye kwisandla esinye neminwe e-4 kwesinye isandla. Yiminwe emingaphi xa iphelele? 2. USandla unamaqebengwane ama- 4. UMpho umnika eli-1 kwakhona.USandla unamaqebengwane amangaphi xa ewonke? 3. UTini unamatye ama -5 wawanika uMiya onke. UMiya unamatye amangaphi ? 4. UJama uneemabhule ezi- 5 walahla ezi- 2. Ushiyeke neemabhule ezingaphi? 5. Ikati enye ineendlebe ezimbini. Iikati ezimbini zineendlebe ezingaphi? 6. Ingoma, “Amahotyazana mahlanu emthini ” (cacisa ukuba amahobe ayehla ngenani).	Izinto zokubala Iimabhule (marbles) Ingoma	usuku olu- 1

Iveki yama- 22	**Ixesha lokufundisa elicetyisiweyo** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amangqaku angangcaciso**	**Izixhobo ezicetyisiweyo**	**Ixesha elisondeleyo**
1.4 **Chaza,uthelekise uze ulandelelanise amanani**	• **Thelekisa ukuba yeyiphi ingqokelela yezinto ezinikiweyo ezininzi kune, ezimbalwa kune, ezilinganayo ukuya ku-5** **Ngomlomo: Bala izinto zemihla ngemihla ukuya ku-5** Bala ukuya phambili, ubale ubuya umva ukuya ku- 5 Bala ngentloko okungenantsingiselo 1-10 **Bethelela isigama "ninzi" no-"mbalwa ".** Qhwaba izandla amatyeli amaninzi.....YIMA. Qhwaba izandla kambalwa. Utitshala uqhwaba kahlanu Buza umbuzo:" Leliphi inani elibe lininzi/elibe mbalwa lokuqhwaba?" **Ukufunda usebenzisa intshukumo yomzimba** - Utitshala ubeka izinto ezininzi phezu kwetafile, umzekelo, ziimagi ezi-2, iibhloko ezi-5 ezifanayo, izikhongozeli ezi-4, iincwadi ezi -2. Abafundi maba: - Bala inani leemagi nezikhongozeli. Ziimagi okanye zizikhongozeli ezininzi? - Bala inani leebhloko neleencwadi. Zimbalwa iibhoko kuneencwadi? Zininzi iibhoko kunencwadi? - Bala iincwadi neemagi. Ziyalingana izinto okanye hayi?	Iingoma zamanani nemvano-siphelo Imagi ezi-2, iiblokhi ezifanayo ezi-5, izikhonkozeli ezi-4, incwadi ezi-2.	Usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D - Abafundi bahlala ekhaphethini benze iinesi ezimbini ngewulu. - Utitshala unika umyalelo, umzekelo, abafundi bafake izinto zokubala ezibini kwenye inesi, baphinde bafake ezintathu kwenye. Yeyiphi inesi enezininzi? Yeyiphi enezimbalwa? - Utitshala ubizela abafundi aba-5 phambi kweklasi. Ufaka inani elahlukileyo lamaso ezandleni zomfundi ngamnye. - Sesiphi isandla esinamaso amaninzi? - Sesiphi isandla esinamaso ambalwa? **Izinto ezikwimilo enokwakheka kuka 2-D/imifanekiso** - Utitshala ubonisa amakhadi amabini anamanani ahlukileyo amachaphaza nemifanekiso. - Abafundi bathelekisa amakhadi anemifanekiso namachaphaza achonge ukuba nkulu kune, mbalwa kune nokulingana.	Izijungqe ezibini zewulu zomfundi ngamnye Izinto zokubala ezi-6 zomfundi ngamnye  Amaso Oonotsheluza bemifanekiso nabamachaphaza abaquka amanani 1 - 5	

Iveki yama- 22	**Ixesha lokufundisa elicetyisiweyo** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amangqaku angangcaciso**	**Izixhobo ezicetyisiweyo**	**Ixesha elisondeleyo**
2.1 **Iipateni zejiyometri**	• **Bethelela ukukhuphela ipateni enikiweyo** **Ukufunda usebenzisa intshukumo yomzimba** - Ukusebenza ngamaqela bakhuphele ipateni enikiweyo, umzekelo, umfundi, isitulo, umfundi, isitulo. - Abafundi ababini, isitulo esinye, abafundi ababini, isitulo esinye. - Ngqisha ngonyawo olunye, ngqisha ngolunye unyawo, xhuma-xhumela phambili, xhuma-xhumela emva	Abafundi Izitulo	Usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D - Utitshala uyila ipateni esebenzisa izinto zokubala neziciko zeebhotile, umzekelo, isibali, isibali, isiciko sebhotile, isibali, isibali, isiciko sebhotile. Abafundi bakhuphela ipateni. - Hamba kancinci, kancinci, msinya, msinya. (utitshala uthetha ehamba) Abafundi bakhuphela ipateni. **Ukusebenzisa iimilo enokwakheka kuka 2-D/imifanekiso** - Yohlula abafundi kumaqela amahlanu. Nika iqela ngalinye imifanekiso yokwenza ipateni. - Abafundi bayila iipateni zabo zemifanekiso usebenzisa imifanekiso enikiweyo, umzekelo, o Iorenji iapile, iapile, iorenji o Ibhabhathane, ibhabhathane, inyozi, inyozi. Lo msebenzi unganxulumaniswa noBugcisa bokubonwayo kwiZakhono zoBomi	Izinto zokubala Iziciko zeebhotile Imifanekiso nayiphi efumanekayo, umzekelo, iintengiso. Phinda phinda imifanekiso ukuqinisekisa ukuba zanele.	

Iveki yama- 22	Ixesha lokufundisa elicetyisiweyo Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)		
Isihloko	**Amangqaku angangcaciso**	**Izixhobo ezicetyisiweyo**	**Ixesha elisondeleyo**
3.3 **Iimilo ezinokwakheka kuka 2-D**	**Qwalasela, chonga uxele iimilo ezinokwakheka kuka 2-D eklasini nasemifanekisweni.** • **Bethelela ulwazi olufunyenwe kwiveki yesi-6 equka isikwere** Nxulumanisa neMithambo kwiZakhono zoBomi **Ukufunda usebenzisa intshukumo yomzimba** - Zoba isikwere phantsi uvumele abafundi batsiba-tsibe kuso. Abafundi mabathi: " nditsiba-tsiba eskwerini – icala elinye, amacala amabini, amacala amathathu, amacala amane, onke amacala ayafana " - Abafundi mabalale engceni/ ekhaphethini intloko yomnye ibe sezinyaweni zomnye benze isikwere. - Amaqela abafundi mabalale ekhaphethini ukwenza izikwere ezincinci. **Ukusebenzisa izinto ezinokwakheka kuka 3-D** - Utitshala uzoba igridi phantsi. - Vaka imilo yokwenyani, umzekelo, iimilo zeLogi, okanye imifanekiso yemilo kwibhoko nganye. - Utitshala ubiza imilo. - Abafundi balahlela ibhinbhegi phakathi kwebhoko ehambelana nemilo ebiziweyo . **Ukusebenzisa iimilo okanye imifanekiso enokwakheka kuka- 2-D** Abafundi mabahlulahlule indidi zezikwere ezilungiswe ngutitshala ngobukhulu nangemibala. - Abafundi maba: - Chonge izikwere ngobukhulu bazo ngokuchaza izikwere ezikhulu, ezincinci neziphakathi. - Chonge imibala yeendidi zezikwere . **Hlela izinto ngokwemilo, ubungakanani nombala** • Hlela iindidi zezinto ngokombala nangemilo	isikwere emgangathweni/phantsi  Ibhinbhegi Ikhadibhodi ezimbini zezikwere esinye sibhlowu esinye siluhlaza. Ikhadibhodi eziphakathi ngokobungakanani zezikwere ezi-2 esinye sibhlowu esinye siluhlaza. Ikhadibhodi ezincinci kakhulu zezikwere ezi-2 esinye sibhlowu esinye siluhlaza.	Usuku olu- 1

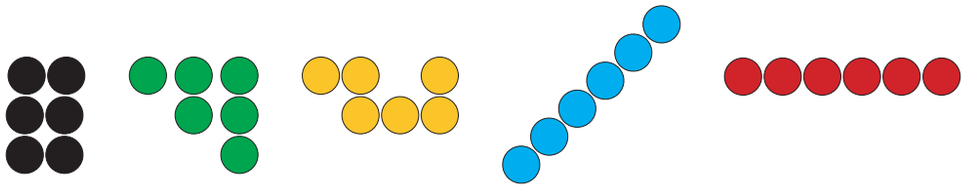
Iveki yama- 23	**Ixesha lokufundisa elicetyisiweyo:** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amangqaku angangcaciso**	**Izixhobo ezicetyisiweyo**	**Ixesha elisondeleyo**
1.1 **Bala izinto**	• **Ukubethelela ulwazi abalufumanekayo olubandakanya amanani u-1 ukuya kwi -5** **Ngomlomo:** Bala izinto zemihla ngemihla ukuya ku -5 Bala ukuya phambili, ukubala ubuya umva ukuya ku -5 Bala ngentloko okungenantsingiselo 1-10 **Bethelela isigama “ninzi” no “mbalwa ”.** Qhwaba izandla amatyeli amaninzi.....YIMA. Qhwaba izandla kambalwa. Utitshala uqhwaba ka- 5 Buza umbuzo:” Leliphi inani elibe lininzi/elibe mbalwa lokuqhwaba?” **Ukufunda usebenzisa intshukumo yomzimba** Abafundi maba: - Utitshala udlala igubu . - Abafundi bayahambahamba. - Xa igubu liyeka ukubetha, utitshala ukhwaza inani eliphakathi kuka- 1 no- 5. - Abafundi bazicwangcisa ngokwamaqelana, umzekelo, utitshala ukhwaza inani -3 abafundi bazicwangcise kumaqela esi-3. **Sebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Utitshala ubeka izinto phezu kwetafile ziyimfumba. Abafundi mabaqikelele ukuba zingaphi izinto ezikwimfumba. - Mabazibale emva koko.	lingoma zamanani nezicengcelezo Igubu	usuku olu- 1 Khetha imsebenzi embalwa

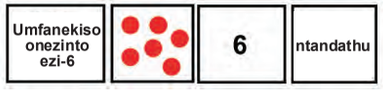
Iveki yama- 23	**Ixesha lokufundisa elicetyisiweyo:** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amangqaku angangcaciso**	**Izixhobo ezicetyisiweyo**	**Ixesha elisondeleyo**
1.6 **Ubuchule bokusombula iingxaki zezibalo**	**Masidlale:** Utitshala uyila ileli yamanani phantsi. Inani eliselelini limela inani lendlu umfundi ahlala kuyo. Utitshala ukhetha abafundi abasebenzisa imvano-siphelo wanika umyalelo: - Qala eqandeni. Cacisa ukuba iqanda lithetha ukuba “akukho nto” yaye ukubala kuqala ku -1 . - Bala ngeli xesha uhambayo. - Utitshala uthi kumfundi: “ ukwindlu yesi-2, yeyiphi indlu elandela indlu yesi-2? - Imiyalelo egqithayo ingathi: “ yiya kwindlu yesi-3. Buyela emva kwindlu yesibini. Yiya phambili kwindlu yesi-4. - Utitshala uthi: “ ndikwindlu yesi- 3, yeyiphi elandelayo?” - Yiya kwindlu yesi- 4. Hambisa inani elinye phambili. Hambisa amanani amabini emva. - Yima phambi kwendlu yesithathu neyesi-5.	0 | 1 | 2 | 3 | 4 | 5 Isicengcelezo sokubala: 1, 2, 3, 4, 5, Xa ndibambise intlanzi 6, 7, 8, 9, 10 Ndayikhulula kwakhona	
1.4 **Chaza,thelekisa uze ulandelelanise amanani**	• **Sebenzisa inani -5 kwimeko eqhelekileyo** Ukuphuhlisa inkumbulo, khuthaza abafundi uku: - Khumbula iifowuni zikamama nootata babo. - Khumbula iidilesi zamakhaya abo. - Iifowuni maziphindaphindwe ngexesha lerejista yobukho yemihla ngemihla.	Ifowuni kamama okanye ekatata nedilesi yasekhaya	Usuku olu- 1
3.2 **Izinto ezinokwakheka kuka -3-D**	• **Yakha izinto ezikwakheka kuka 3-D kusetyenziswa imatheriyali ephathekayo** - Abafundi basebenzisa umzekelo katitshala. Utitshala unika imiyalelo elandelayo: - Yakha incochoyi elingana neyam ngokuphakama. - Yakha incochoyi engaphantsi kweyam. - Yakha incochoyi ephakame kuneyam. - Abafundi mabakhe esabo isakhiwo ngokukopa kumzekelo onikiweyo.	Ibhloko ezakhayo/ Iibhloko zeLego Nasiphina isixhobo sokwakha	Usuku olu- 1 Iyaqhubekeka

Iveki yama- 23	**Ixesha lokufundisa elicetyisiweyo:** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amangqaku angangcaciso**	**Izixhobo ezicetyisiweyo**	**Ixesha elisondeleyo**
3.1 **Indawo-bume ukufumana indawo nembonakalo**	**Ukulandela izalathiso ukuhamba okanye ukuzibeka kwisithuba esithile** • **Phuhlisa ulwazi lwezalathiso ngokufundisa isigama "phambili " "nasemva"** **Ukufunda usebenzisa intshukumo yomzimba** - Njengentshayelelo, bethelela ulwazi olufunyenweyo kwiiveki ezisibhozo.		Usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D - Zoba isangqa esikhulu, unxantathu okanye isikwere ephetshaneni ulibeke phantsi. - Abafundi maba: - Qhube imoto yokudlala kwimigca yesikwere abafundi baxele icala eya ngakulo imoto (phambili nasemva ,ukhohlo nasekunene usebenzisa ingalo ukubonisa ukhohlo nokunene)	Imilo emikhulu ezotywe ephetshaneni Imoto yokudlala	
	Iimilo ezinokwakheka kuka 2-D okanye imifanekiso - Abafundi mabaqhele isigama Sika- phambili nesika- emva ngokubonisa amacala emifanekisweni, umzekelo, icala imoto eya ngakulo, icala umntu ahambela ngakulo.	Imifanekiso ebonisa amacala ngokucacileyo, umzekelo, icala imoto eya ngakulo, icala umntu ahambela ngakulo.	

Iveki yama- 23	**Ixesha lokufundisa elicetyisiweyo:** **Iplani enye yomsebenzi weklasi okhokelwe yititshala (isanqa) ye ± 30 imizuzu ngosuku (± 5 imisebenzi yeMathematika ngeveki)**		
Isihloko	**Amangqaku angangcaciso**	**Izixhobo ezicetyisiweyo**	**Ixesha elisondeleyo**
4.2 **Ubude**	**Ukuthelekisa nokulandelelanisa izinto eziphathekayo esebenzisa isigama esifanelekileyo ukuchaza ubude** • **Ukuqikelela ubude bezinto ezahlukileyo** **Ukufunda usebenzisa intshukumo yomzimba** - Abafundi bazicwangcisa ngobude ukusuka komfutshane ukuya komde. Thelekisa ubude babo nabanye abafundi. - Dlala umdlalo wokulandela inkokheli. Oyena mde wenza isenzo abanye bamlinganise bengasemva kwakhe. Jika umgca ukuze omfutshane ibe nguye ongaphambili. - Abafundi mabathelekise izandla neenyawo zabo ukuze babone ukuba zezoobani ezinde kakhulu nezimfutshane kakhulu. Qikelela uthathe umlinganiselo: - Abafundi baqikelela izinto- ende kwemfutshane, umzekelo, ubude betafile okanye isijungqe somtya. - Qikelela izinto - ende nemfutshane,umzekelo, ipensile, ikhrayoni . - Abafundi mabathelekelele, yeyiphi into enokuba nde kwenye, umzekelo, imicinga emibini edityaniswe ngobude okanye ikliphu zemali ezintathu ezidityanisiweyo. - Buza le mibuzo: “ yeyiphi endana/ende, ipensile okanye isijungqe somtya? ” njl njl. - Sesiphi isitulo esikude kakhulu ukusuka edesikeni katitshala ? - Zingaphi iipensile ezinokungena kwicala elide ledesika katitshala ? - Mangaphi amanyathelo owathathayo ukuya emnyango ? - Zingaphi iibhokisi zematshisi ezinesanti ezinokungena kule bhokisi? - Zingapihi iikomityi zamaqanda ezinamanzi ezinokuzalisa le glasi? - Naba abafundi abathathu nezitulo ezine. - Zingaphi izitulo esizidingayo?	Izinto zobude obahlukeneyo njenge: Ipensile, ikhrayoni, izijungqe zomtya (omnye ube usongiwe), itafile, iincwadi, imicinga, Ipaperclips (ezisongiweyo, ezivuliweyo nezijijeneyo)njl njl.	i intsuku ezi- 2 okanye khetha kuphela imisetyenzana embalwa

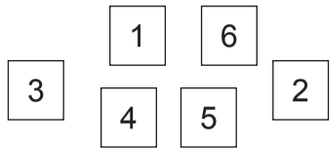
Iveki yama- 24	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.1 **Bala izinto**	• **Fundisa intsingiselo yenani u- 6** **Ngomolomo:** Bala izinto zangemihla ngemihla uye kuma ku- 6. Bala usiya phambili ubale ubuya umva uyokuma ku-6. Ukubala ngentloko ngokungenantsingiselo 1-10 **Ukubethelela indawo yenani/into kwiseti:** ootitshala bapakisha izinto ezi- 3 emgceni. Khomba kwinto nganye eli xa ubalayo ;*eyokuqala, eyesibini, eyesithathu* **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma ku- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*? **Ukufunda usebenzisa intshukumo yomzimba** Abafundi maba: - Bala ukuya ku-6 logama unyuka amanqwanqwa. - Bala ubuya umva logama usihla usihla ngamanqwanqwa - Zoba u -6 esantini uze uhambe/ uxhume/utsibe ngomlenze omnye ecaleni kwayo. - Qhwaba izandla ka- 6. - Nakana amanani -1 uye ku- 6 usebenzisa iisimboli zamanani amakhulu. - Makapakishe inombolo yendlu yakowabo okanye inombolo yemfono -mfono esebenzisa amakhadi eenombolo amakhulu.	Amaculo nezicengcelezo zamanani. Zenzele awakho amakhadi amakhulu eesimboli zamanani, abafundi abakwazi ukuwabamba. Banokufunda iminyaka yabo, iiflethi/ inombolo zasemakhayeni abo/ iinombolo zemfono- mfono/ inombolo zoonomyayi zabazali babo, nezinye. Le seti inye ingaphinda isetyenziswe ukukhangela amanani bawapakishe ngokulandelelana kwawo.	Usuku olu-1

Iveki yama- 24	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.1 **Bala izinto**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Bala izinto eklasini. Abafundi mabenze ezi zinto zilandelayo: Buza imibuzo enje ngale: - Leliphi inani eliza emva ko- 3, leliphi inani eliza emva ko -5, njl.?” - Utitshala upakisha izinto phezu kwetafile. Abafundi mabaqikelele ukuba zingaphi ezi zinto bazibonayo. Mabazibale emveni koko. - Phuhlisa ulwazi lwamanani ngokwenzisa abafundi ukuba bapakishe izinto zokubala(iikhawuntara) okanye izinto ngeendlela ezahlukeneyo, umzekelo  Xa sibala, inani lezinto azichaphazeli ubungakanani okanye indawo ezikuyo okanye ziyafana. imizekelo: - lungelelanisa amaqhosha ama -6, iipensile ezi -6,iihupu ezi- 6, abafundi aba- 6 njl. Njl. - zibale ngeendlela ezahlukeneyo, imizekelo, zibale uzisakazile, zigcine zidibene, zisemgceni okanye zicukene. Yohlula abafundi ngabathandathu,banike iibhloko zokwakha ezi- 6. Amaqela maba: - bale iibhloko zabo - khe ithawa ngeebhloko ezi- 6, bakhuthaze abafundi ukuba babale iibhloko xa besakha ithawa. - Utitshala uyazula zula eleyibhelisha iithawa zabafundi ngamakhadi amanani. Abafundi babala iibhloko. Maba phinda phinde ukubala. - Khetha umfundi aphose idayisi. Qinisekisa ukuba abafundi bayalibona bonke idayisi. Abafundi mababale amachokoza bakhombe kwithawa ehambelana namachokoza.	Izinto ezise klasini nakummandla osingqongileyo. Sebenzisa izixhobo ezahlukeneyo ezikunika iintlobo ezahlukeneyo ukufundisa izicwangciso- qhinga. Iibhloko zokwakha ezi- 6 kumfundi nganye.	Usuku olu-1

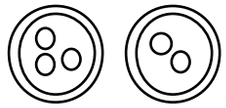
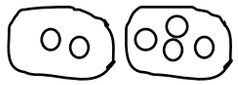
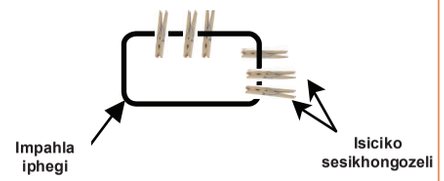
Iveki yama- 24	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.3 **Iisimboli zamanani namagama amanani**	• **Yazi iisimboli zamanani uze unakane amagama amanani abandakanya isi-6.** **Ngomlomo:** Bala izinto zemihla ngemihla uye kuma ku-- 6. Bala usiya phambili, ubale ubuye umva uyokuma ku- 6. **Bethelela u " zininzi/ zimbalwa".** Qhwaba izandla kaninzi …YIMA. Qhwaba izandla amaxesha ambalwa. . Utitshala uqhwaba izandla aye kuma ku- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*? **Ukufunda usebenzisa intshukumo yomzimba** - Zoba inani u -6 emhlabeni/ emgangathweni uze uyalele abafundi ukuba bahambe ecaleni kwamanani. - Zoba inani u -6 esantini nasemoyeni. - Bumba inani u-6 ngodongwe. - Abafundi mabaqashele ukuba Bangaphi abafundi abafunekayo ukwenza inani u -6 besebenzisa imizimba yabo.Mabakhe inani u- 6 ngemizimba yabo. **Ukusebenzisa izinto ezipathekayo ezinokwakheka kuka- 3-D** - Beka induli yezinto etafileni. Dlala ngamanani aphakathi ko- 1 uye ku- 6. - Abafundi mabaqikelele ukuba zingaphi izinto abazibonayo. - Bala izinto.	Iingoma nezicengcelezo zamanani. Izinto eziyi -6.	Usuku 1
	Ukusebenzsia iimilo ezinokwakheka kuka 2-D okanye imifanekiso - Khetha koonotsheluza abaxutyiweyo kwezinemifanekiso ezino -6 uzidibanise nezilingana twatse nezinto zokubala. - Bonisa oonotsheluza abanemifanekiso ano-6 ubadibanise namachokoza nezinto zokubala ezino -6. - Bonisa oootsheluza abanamachokoza ano-6 uwadibanise nesimboli u -6 nezinto zokubala ezi- 6. - Jonga koonotsheluza abaxutyiweyo abanegama lenani u -6 ulidibanise nesimboli u- 6 kunye nezinto zokubala.	Yenza imifanekiso ufakele amachokoza kumakhadi anenani u - imizekelo ;  Izinto zokubala okanye izinto ezinokwakheka kuka 3-D 	

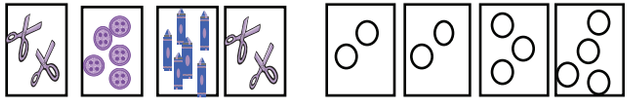
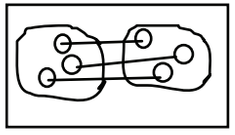
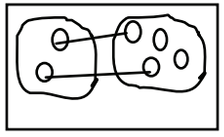
Iveki yama- 24	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.13 **Ukudibanisa nokuthabatha**	• **Sombulula iingxaki zokudibanisa nokuthabatha ngomlomo ezineempendulo ukuya ku -6 .** **Ngomlomo:** Bala izinto zemihla ngemihla uyo kuma ku- 6. Bala usiya phambili, ubale ubuya umva uyokuma ku -6. Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*? **Ukufunda usebenzisa intshukumo yomzimba** **Imizekelo** 1. Utitshala ubiza abafundi abathathu ngaphambili. Abafundi mababababale.Utitshala ubiza abanye ababini abuze: Bangaphi abafundi bebonke? 3 no 2 → 5. (utitshala uthi: 3 no 2 benza 5) 2. Utitshala upakisha izitulo ezi- 2. Yongeza ezinye ezi 2. Zingaphi ngoku zizonke? 2 no 2 → 4. 3. Utitshala uphakamisa isandla esinye. Uthi “bala iminwe yam. Ukuba ndifihle ubhontsi wam, mingaphi iminwe oyibonayo? 5 uthabathe u 1→ 4. 4. Abafundi mababale iminwe yabo kwisandla esinye. Fihla ubhontsi wakho, mingaphi iminwe oyibonayo? 5 uthabathe u 1 ® 4	Iingoma nezicengcelelzo zamanani. Abafundi Izitulo	
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Abafundi mabapakishe izinto zokubala eziyi- 6 benze ezi zinto zilandelayo: • Utitshala makanike abafundi izinto zokubala ezi- 6. • Utitshala unika imiyalelo abafundi baphendule, imizekelo, pakisha izinto zokubala zibe- 2, yongeza ezinye ezi- 3. • Zingaphi zizonke? 2 no 3 → 5. • Bala izinto zokubala ezi -4. Yongeza ezi -2 kwezi-4. zingaphi zizonke ngoku? 4 no 2 → 6. • Bala onke amaso onawo. Ukuba ugquma amaso amabini ngesandla sakho ubona amaso amangapphi ngoku? 6 uthabathe u 2 → 4.	Amaso nezinto zokubala.	

Iveki yama- 24	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.13 **Ukudibanisa nokuthabatha**	• **Ngomlomo, sombulula izibalo zamazwi ezibandakanya u- 6** **Ngomlomo:** Bala izinto zemihla ngemihla uyokuma ku -6. Bala ukuya phambili, ubale ubuya umva uye kuma ku -6. **Bethelela u " zininzi/ zimbalwa".** Qhwaba izandla kaninzi …YIMA. Qhwaba izandla amaxesha ambalwa. . Utitshala uqhwaba izandla aye kuma ku- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*?	Iingoma nezicengcelelzo zamanani.	Usuku olu- 1
	Ukusebenzisa zinto eziphathekayo ezinokwakheka kuka 3-D **Imizekelo:** 1. UMpho unamaqebengwana ama- 4. UPeter umnika amanye ama- 2 ngaphezulu. Mangaphi amaqebengwana kaMpho ewonke? 2. UNontle unoonodoli aba -3 noMandisa unoonodoli aba- 2. Ngowuphi onoonodoli abaninzi? Bangaphi oonodoli baka Nontle ngaphezu kwabaka Mandisa? 3. Kukho iintaka ezi- 5 elucingweni. Ezi -2 zibhabhile. Zingaphi iintaka ezishiyekileyo? 4. UPat uneemoto zokudlala ezi -6. UThina unezi- 4. Zingaphi iimoto zokudlala uThina anazo ngaphantsi kunezika Pat? 5. Umntwana ngamnye unempumlo enye. Abantwana abathathu bane …… 6. Umntwana ngamnye uneenyawo ezimbini. Abantwana abathathu bane……. 7. Umntwana ngamnye uneengalo ezimbini. Abantwana ababini bane….. 8. Umntwana ngamnye unomlomo omnye.Abantwana abathathu bane…..	Izinto zokubala Sebenzisa iindidi zezixhobo ezahlukeneyo ezinokunika iindidi zokusebenzisa izicwangiso -qhinga.	
3.2 **Izinto ezinokwakheka kuka 3-D**	• **Yakha izinto esinokwakheka kuka 3-D kuyilo okanye ikhadi lelinofanekiso.** - Abafundi mabenze: - Yakha isakhiwo usebenzisa umfanekiso - Abafundi bahlohla amaso belandela abakubona emfanekisweni.	"limilo yeLogi" izakhono ngebhloko Nasiphi isixhobo sokwakha Amaso, umtya wesihlangu Amakhadi ahlukeneyo abonisa iindlela ezahlukeneyo zamaso.	

Iveki yama- 25	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.1 **Bala izinto**	• **Bethelela ulwazi olufunyenwe kwiveki yama- 24 olubandakanya inani u-6.** **Ngomlomo:** bala izinto yonke imihla uyo kuma ku -6. Bala usiya phambili, ubale ubuya umva uyokuma ku -6. Bala ngentloko ngokungenantsingiselo 1-10 **Bethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma ku- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*?	Iingoma nezicengcelezo zamanani.	**usuku olu- 1**
	Ukufunda usebenzisa intshukumo yomzimba Masidlale umdlalo: Utitshala ubeka ikhadibhodi enkulu enamanani okanye amakhadi anamanani ukuqala ku- 1 ukuya ku -6 ngokokulandelelana kwawo phantsi. Utitshala unika abantwana imiyalelo enje nge: - Hlala kwinani u- 6. - Beka umnwe wakho kwinani u -3. - Baleka ujikeleze kwinani u- 2 kathathu. - Xhuma phezu kwenani u -1. - Utitshala makasasaze amakhadi anamanani abanike le miyalelo ingentla.	Iseti yamakhadibhodi enkulu eneesimboli zamanani. Ungawapeyinta kwiplastiki eqinileyo okanye kwikhadibhodi. 	
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Abafundi maba: - Bala izinto eklasini ezibandakanya amanani u-1 ukuya kwi-6. - Utitshala upakisha izinto phezu kwetafile. Abafundi mabaqikelele ukuba zingaphi ezi zinto bazibonayo. Mabazibale emveni koko.		

Iveki yama- 25	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.3 **Iisimboli zamanani kunye namagama amanani**	• **Nakana uze uchonge iisimboli zamanani namagama amanani abandakanya inani u -6** **Ngomlomo:** bala izinto ezisetyenziswa yonke imihla uyo kuma ku -6. Bala usiya phambili, ubale ubuya umva uyokuma ku-6. **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma ku- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*	Iingoma nezicengcelelzo zamanani.	usuku olu- 1
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso - Bonisa oonotsheluza abanemifanekiso ano- 6 ubadibanise namachokoza nezinto zokubala ezino-6. - Dlala umdlalo ukhethe inani eliyisimboli elifana ngqo, kwamanye ulithelekise nezinto zokubala ezifanayo. - Dlala umdlalo ukhethe igama lenani elifana ngqo, kwamanye ulithelekise nezinto zokubala ezifanayo. - Dlala umdlalo ukhethe inani lezinto zokubala elifana ngqo, kwamanye ulithelekise nezinto zokubala ezifanayo. - Cinezela(threyisa) inani u- 6 usebenzise ikhrayoni.	Izinto zokubala Oonotsheluza abaneesimboli zamanani namagama amanani, umzekelo 	

Iveki yama- 25	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
1.4 **Chaza,thelekisa uze ulandelelanise amanani**	• **Landelelanisa uze uthelekise ingqokelela yezinto usebenzisa " ngaphezu kuna/ ngaphantsi kuna" uyokuma ku -6.** **Ngomlomo:** bala izinto uyokuma ku -6. Bala usiya phambili, ubale ubuya umva uyokuma ku- 6. **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma ku- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*?	Iingoma nezicengcelezo zamanani.	Usuku olu- 1 Khetha uphela imisebenzi embalwa.
	Ukufunda usebenzisa intshukumo yomzimba - Utitshala ubeka ihupu ezimbini phantsi - Ubiza abafundi abathathu beme kwindlu yentaka yokuqala aze abize abanye ababini baye kuma kwenye indlu yeentaka. - Yeyiphi indlu yeentaka enabafundi abaninzi kunenye?	Iihupu (hoops)ezimbini 	
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D - Abafundi mabahlale emethini benze iindlwana zeentaka ezimbini ngewulu. - Utitshala unika imiyalelo, umzekelo, abafundi babeka izinto zokubala zibe mbini kwindlu yeentaka nezine kwenye indlu yeentaka, yeyiphi indlu yentaka enezinto zokubala ezininzi? Yeyiphi enezingaphantsi? Phinda phinda usebenzise amanani uyokuma ku -6. - Utitshala usebenzisa isiciko sesikhongozeli seayisi krim. Uxhoma iiphegi ezintathu phezu kwesiciko nezinye ezintathu ekunene kwesiciko. Zeziphi iiphegi ezininzi kunezinye okanye ziyalingana? - Abafundi bangenza umdlalo ngalo msebenzi bengamaqela besebenzisa iziciko neempahla zabo.	Izijungqe ezimbini zewulu kumfundi ngamnye. Izinto zokubala  	

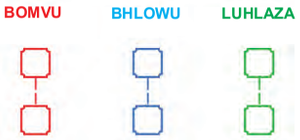
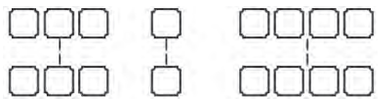
Iveki yama- 25	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezinokusetyenziswa**	**Ixesha elithelekelelwayo**
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso - Utitshala ubonisa amakhadi anamachokoza anamanani anemifanekiso kuyo  - Abafundi mabathelekise amakhadi anemifanekiso namachokoza bakhangele “amaninzi kunamanye” ambalwa kunamanye” “alinganayo”. Abafundi bazoba izindlu zeentaka ezimbini ephepheni. Kumyalelo, mabapakishe izinto zokubala bazitshatise nezindlu zeentaka ngekhrayoni. Phuhlisa ingqiqo u” yahlula ngokulinganayo” umzekelo  Yenza amaqela amanani azeleyo iimpendulo zibe nentsalela, umzekelo 	Imifanekiso kunye namakhadi anamachokoza. Iphepha eliyi A4 neekhrayoni zamafutha Izinto zokubala	
3.3 **Iimilo ezinokwakheka kuka 2-D**	**Nakana,uchonge uze uxele amagama eemilo ezinokwakheka kuka 2-D eklasini nasemifanekisweni** • **Yenza ugqibezele iphazili enezicwili ezintlanu** Abafundi maba: • Zoba umfanekiso kwiphepha le A4. • Utitshala uzoba imigca emva kwemizobo yabafundi. • Umfundi usika umfanekiso phezu kwemigca. • Umfundi ugqibezela iphazili yakhe.	Iikhrayoni iphepha le A4 izikere  Imvulopu okanye ibhegi ozenzeleyo ukufaka iphazili kwi (goba iphepha ufake iglu emacaleni).	Usuku olu- 1

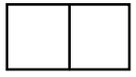
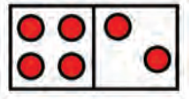
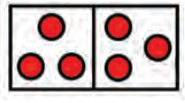
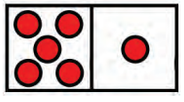
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Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)</th></tr>
<tr><th>Isihloko</th><th>Amanqaku angangcaciso</th><th>Izixhobo ezinokusetyenziswa</th><th>Ixesha elithelekelelwayo</th></tr>
<tr><td>5.1
Qokelela uze uhlele izinto

5.2
Bonisa ingqokelela yezinto ezihleliweyo

5.3
Xoxa uze unikezele ingxelo yengqokelela yezinto ezihleliweyo</td><td>
• Inani loonobumba kumagama abafundi
Ukusombulula iingxaki: Buza abafundi ingxaki yezibalo:
“Ingaba amagama anoonobumba abathandathu ngawona athandwayo?
Singenza njani siyifumane impendulo? Loluphi ulwazi ekufuneka siluqokelele?
Qokelela ulwazi
- Abafundi mababale oonobumba kumagama abo, kwiileyibhile zamagama ebezenziwe ngutitshala.
- Utitshala uphakamisa ikhadi elinenani elingqamana nenani loonobumba begama lomfundi, abuze: ngubani umfundi onegama elinoonobumba aba- 4, uphakamisa ikhadi eline nani u -4. qhuba ngawo onke amanani.
Zoba igrafu
- Utitshala uzoba le grafu elandelayo ephakamise amanani:
<table>
<tr><th>lileta ezi 3</th><th>lileta ezi 4</th><th>lileta ezi 5</th><th>lileta ezi 6</th></tr>
<tr><td>Tom
Pam</td><td>Solo
Miya
Nobe</td><td>Phiko
Nathi
Sipho
Ludwe
Naila</td><td>Unathi
Phumla</td></tr>
<tr><td>2</td><td>3</td><td>5</td><td>2</td></tr>
</table>
Funda uze utolike igrafu
- Leliphi inani elifumaneka rhoqo koonobumba bamagama?
- Ngawaphi amagama anoonobumba abangaphezu kwe -5?.
- Ngawaphi amagama anoonobumba abangaphantsi kuno -5?.
</td><td></td><td></td></tr>
</table>

Iveki yama- 26	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.1 **Ukubala amanani**	• **Bethelela ulwazi olufunyenwe kwiveki yama- 24 equka amanani u-1 ukuya kwi -6** **Ngomlomo:** bala izinto yonke imihla uyokuma ku -6. Bala usiya phambili, ubale ubuya umva uyokuma ku -6. **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma kwi- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*? **Ukufunda usebenzisa intshukumo yomzimba** Abafundi ba: - kha isimboli yamanani ngemizimba yabo. - Bonisa inani leminwe yabo ngokomyalelo katitshala. - kha iisimboli zamanani ngomtya okanye ngentlama yokudlala. - va imilo yenani esingxobeni bachaze inani ngalinye. - Bhala isimboli yenani ukuqala ku -1 uyokuma ku -6 phantsi nasemoyeni, njl.	Iingoma nezicengcelezo zamanani. Iiseti ezimbini zemilo zamanani zekhadibhodi "kwisingxobo sokuva".	Usuku olu- 1

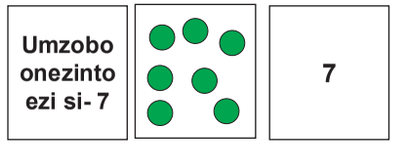
Iveki yama- 26	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.1 **Ukubala amanani**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Abafundi maba: - Bale izinto eklasini eziquka e-1 ukuya kwezi- 6 - Bale izinto zokubala uyokuma ku -6. - Beke iityhubhu okanye izinto zokubala ezinemibala ngomgca phezu kwetafile. - Tshatise iityhubhu ngemibala besebenzisa iityhubhu zeyunifeksi okanye izinto zokubala. Imizekelo:  - Yenza amaqela obude ahlukeneyo. Abafundi mabatshatise ngokobungakanani. 	Izinto eklasini Izinto zokubala ezinemibala okanye iityhubhu zeyunifiksi (unifix tubes).	
1.3 **Iisimboli zamanani namagama amanani**	• **Azi iisimboli zamanani aze anakane amagama amanani abandakanya u -1 ukuya ku -6.** **Ngomlomo:** bala izinto yonke imihla uyokuma ku -6. Bala usiya phambili, ubale ubuya umva uyokuma ku- 6. **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma kwi- 6. **Ukusebenzisa imilo ezinokwakheka kuka 2-D okanye imifanekiso** Masenze umdlalo: - Utitshala wenza amakhadi anamanani ano 1-6 anamagama amanani ecaleni nesimboli kwelinye icala. - Abafundi bafunda amagama amanani baqikelele iisimboli zamanani. - Baguqula amakhadi bazilungise apho benze kakubi khona.	Umphambili wekhadi Umva wekhadi Thandathu 6 Amakhadi anamanani u 1-6 anamagama amanani ecaleni nesimboli kwelinye icala. (yenza iiseti ezimbalwa ukwenzela ukuba umfundi ngamnye abe neseti yakhe).	usuku olu- 1

Iveki yama- 26	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.7 **Ukudibanisa nokuthabatha**	• **Sombulula izibalo zamazwi ngomlomo (izibalo zamazwi) kwimeko ethile uze ucacise isisombululo kwiingxaki yezibalo ezibandakanya inani- 6.** **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma ku- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*?	Iingoma nezicengcelezo zamanani.	Usuku olu- 1
	Ukusebenzisa zinto eziphathekayo ezinokwakheka kuka 3-D 1. Nika umfundi ngamnye iphepha I A4 elinemigca enyukileyo nezinto zokubala ezi- 6, imizekelo  2. Yenza abafundi baziphose izinto zokubala ngobunono ephepheni bacacise ukuba ziwe njani, imizekelo  u 4 no 2 →6 (u 4 no 2 zenza 6)  u 3 no 3 → 6 3. Phinda ngamanani u 1 ukuya 5.  u 5 no 1 → 6 **4. Ukusombulula iingxaki:** Cacisa izisombululo zengxaki. 5. Yenza ngokufanayo nakwiingxaki zokuthabatha.	Umfundi unikwa izinto zokubala ezi- 6 Iphepha elinemigca enyukileyo embindini eyi A4	

Iveki yama- 26	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
4.4 **Umthamo/Ivolumu**	• **Fundisa umlinganiselo womthamo ngokuthelekisa ukuba izikhongozeli zithatha kangakanani, imizekelo** - "ayinanto/ izele" - "ungaphezu kune/ ingaphantsi kune" - Kakhulu, kancinci Fundisa umthamo kubafundi ngokubuza ukuba sesiphi isikhongozeli ezithatha kakhulu. Abafundi bathanda ukwenza uthelekiso kubude ngaphezu komthamo. Umzekelo, xa bebuzwa ukuba yeyiphi ethatha umthamo omkhulu, isikhongozeli eside nesifutshane, abafundi abaninzi baya kukhetha isikhongozeli eside nokuba esifutshane sithatha umthamo omkhulu wamanzi. **Ukufunda usebenzisa intshukumo yomzimba** "enkulu kune/ ngaphantsi kune" - Sebenzisa isikhongozeli esinye njengomlinganiselo omiselekileyo, umzekelo, ikomityi yeyogathi.Nika abafundi iindidi ezahlukeneyo zezikhongozeli. - Abafundi mabenze: - Khangela ukuba zeziphi izikhongozeli ezithatha umthamo omkhulu, zeziphi ezithatha ngaphantsi, umzekelo ikomityi yeyogathi. "Sesiphi isikhongongozeli esikhulu? Sesiphi iskhongozeli esithatha kancincit?" Nika abafundi icephe nebhakethi enesanti ukugalela isanti ekomityini ngecephe. Abafundi mabenze ezi zinto zilandelayo: - Bala ukuba mangaphi amacephe afunekayo ukuzalisa ikomityi. Ufuniselo lungenziwa nzima ngokubanika izikhongozeli ezininzi, imizekelo, ikomityi, iglasi yeplastiki,nejagi encinci. - Phinda lo msebenzi usebenzise iikomityi.	Amanzi nesanti zezona zixhobo ukuphuhlisa umthamo(ngexesha lomdlalo wamanzi) nange (ngexesha lomdlalo wesanti) Iindidi zezikhongozeli ngokwe milo nobungakanani. Ikomityi yeyogathi Ibhaskithi yesanti Ikomityi Icephe	Usuku olu-1 Khetha umsebenzi omnye okanye emibini.

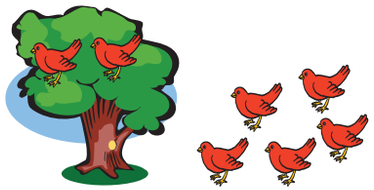
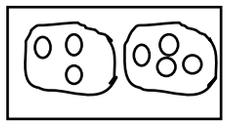
Iveki yama- 26	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
3.1 **Indawo-bume,ukufumana indawo nembonakalo**	**Ukuchaza into enye okanye ngaphezulu ezinokwakheka kuka- 3-D ngokunxulumene nenye** • **Indawo-bume yezinto ezi-2 okanye ngaphezulu ngokunxulumene nenye** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** **Ibhodi yephegi (Pegboard work)** Abafundi mabasebenzise isandla sasekhohlo nesasekunene, emveni koko mabazisebenzise zombini ukufaka iiphegi ebhodini. - Utitshala uxelela abafundi ukuba bazifake phi iphegi,imizekelo Kumqolo ongaphambili Ikumqolo ongezantsi Ngasekhohlo ngasekunene Embindini Abafundi mabenze ezi zinto zilandelayo: - Yenza iimilo kwiphegi bhodi usebenzisa iiphezi zemibala. - Utitshala wenza ipateni elula ngeephegi kwi phegibhodi abafundi bakope kwezabo iibhodi. - Abafundi bakopa ipateni kumakhadi anemizobo.	Iphegi bhodi yomfundi ngamnye okanye ngokwammaqela. Amakhadi azotywe iipateni.  Iphegi bhodi yomfundi ngamnye okanye ngokwamaqela. Amakhadi azotywe iipateni.	usuku olu- 1

Iveki yama- 27	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.1 **Ukubala izinto**	• **Fundisa intsingiselo yenani u- 7** **Ngomlomo:** Bala izinto yonke imihla uyo kuma kwi- 7. Bala usiya phambili, ubale ubuya umva uyokuma kuwi-7. Ukubala ngentloko ngokungenantsingiselo usuka ku-1 uyokuma kwi- 10. **Ukubethelela amanani aqhelekileyo**: Utitshala upakisha izinto ezi -3 ngomgca. Khomba kwinto ngeli xesha ubalayo *eyokuqala, eyesibini, eyesithathu, eyesine.* **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma kwi- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*? **Ukufunda usebenzisa intshukumo yomzimba** - Utitshala wahlula abafundi ngokwamaqela. Nika iqela ngalinye iibhola ezisi- 7 ezenziwe ngamaphephandaba. - Abafundi mabaphose iibhola ebhaskithini. Abafundi mababale ngokukhwaza xa bephosa iibhola. - Bala amaxesha utitshala angqisha etafileni umkope. - Bala usebenzisa ibhithi esetyenziswa rhoqo lo mzuzu abafundi behamba ngamanyathelo, betsibela ngaphakathi nangaphandle. - Ngqisha iinyawo ngexesha usebenzisa isingqisho esisetyenziswa rhoqo.	Iingoma nezicengcelezo zamanani. Iibhola zamaphephandaba Iibhaskithi	Usuku olu- 1

Iveki yama- 27	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.1 **Ukubala izinto**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Utitshala upakisha iibhloko zokwakha embindini womgangatho. Unika imiyalelo enjengale: - Thatha iibhloko ezintathu kwezipakishiweyo. - Thatha iibhloko ezine kwezipakishiweyo uzibuyisele ezimbini njl. - Utitshala upakisha izinto phezu kwetafile. Abafundi mabaqikelele ukuba zingaphi izinto ezipakishiweyo.zibaleni emva koko. - Ukuphuhlisa ulwazi ngogcino lwamanani ngokuba abafundi bapakishe izinto zokubala ezisixhenxe okanye izinto ngeendlela ezahlukeneyo, imizekelo  Xa ubala , inani lezinto alichaphazeli ubungakanani, okanye indawo, okanye ngokufana. imizekelo: - Cwangcia amaqhosha asi- 7, iipensile ezisi -7,iihupu (hoops) ezisi -7 , abafundi abasi -7, njl. - Zibale ngeendlela ezahlukeneyo, imizekelo, zibale uzisasazile, zindawonye,zisemgceni okanye zicukene.	iibhloko zokwakha okanye iibhloko zelego	
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso Masidlale umdlalo: - Utitshala uyazoba okanye ancamathisele imfanekiso kwelinye icala lekhadi, azobe amachokoza kwelinye, aquka amanani aqala ku -1 ukuya ku -7, (yenza iiseti ezimbalwa). - Ukhupha iseti yamakhadi kumfundi ngamnye. - Abafundi babala imifanekiso esekhadini. - Guqula ikhadi uze ubale amachaphaza. - Utitshala uphakamisa ikhadi elinamachaphaza. - Abafundi batshatisa awabo amakhadi kwelikatitshala. - Utitshala uphakamisa iseti yamakhadi anesimboli kuwo. - Abafundi batshatisa awabo amakhadi kulawo katitshala anesimboli. - Umfundi onekhadi elichanekileyo makaphakame, abale inani lemifanekiso ngokukhwaza.	Iiseti ezimbalwa zemifanekiso noonotsheluza beesimboli ezino -1 ukuya ku 7.  	

Iveki yama- 27	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.13 **Ukudibanisa nokuthabatha**	• **Sombulula ngomlomo iingxaki zokudibanisa nokuthabatha eziquka inani u-7** **Ngomlomo:** Bala izinto yonke imihla uyo kuma ku- 7. Bala usiya phambili, ubale ubuya umva uyokuma ku -7. **Bethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma ku- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*?	Iingoma nezicengcelezo zamanani.	Usuku olu-1
1.6 **Ubuchule bokusombulula iingxaki**	**Ukufunda usebenzisa intshukumo yomzimba** - Sebenzisa ileli yamanani ilele ncwaba (ngokuxwesa) - Qala ngo -0 rhoqo. Bala rhoqo xa ushukuma. Utitshala uyabuza: - Leliphi inani eliphakathi kwe- 4 nesi- 6? Umfundi uba nolwazi xa esebenzisa ileli yamanani. - Ngawaphi amanani aphakathi ko- 2 nesi- 5? - Sebenzisa ezakho iimbono ukwenza abafundi ukuba bazi inani u-7 ngokubamba izinto besebenzisa imizimba yabo. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka- 3-D** Nika umfundi ngamnye amaso okanye izinto zokubala ezisi- 7. Buza imibuzo enjengale: - Susa into yokubala ibe- 1 kwelinye icala (ekhohlo). Xa sifakela enye into yokubala ekhohlo, zingaphi ke ngoku? - U- 1 no -1→2 (utitshala uthi: 1 no 1 zenza 2) - Yisa izinto zokubala ezi- 4 ngasekunene. Xa sifakela ezimbini ngaphezulu ngasekunene, zingaphi ngoku? - kunye no- 2→6 - unezinto ezi- 5 zokubala uthathe ezi-2, zingaphi ezishiyekileyo?	0 1 2 3 4 5 6 7 Amaso okanye izinto zokubala Izinto zokubala	

Iveki yama- 27	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.11 **Imali**	• **Nakana uze uchonge imali yaseMzantsi Afrika** **Imali engamaphepha** - Sebenzisa imali yamaphepha, imizekelo R10, R20, R50, R100, R200 - Yazisa abafundi ngemifanekiso yezilwanyana ezahlukeneyo kwimali yamaphepha - Mabenze imidlalo yemali kwizindlu zokudlala.	Imizekelo yenyani yemali yamaphepha R10, R20 ne R50 (okanye imali yamaphepha okudlala)	Usuku olu- 1
1.9 **Ukwahlula ngokwamaqela nokwaba ngokulinganayo okukhokelela kulwahlula-hlulo**	• **Ngomlomo, sombulula uze ucacise iingxaki zezibalo zamazwi eziquka:** - **Ukwaba ngokulinganayo,** - **Ukwahlula ngokwamaqela amanani apheleleyo kunye** - **nezisombululo ezinentsalela yamanani ukuya ku -7** **Ngomlomo:** Bala izinto yonke imihla uye kuma kwi- 7. Bala ukuya phambili, ubale ubuya umva uye kuma kwi -7. **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma kwi- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*?	Iingoma nezicengcelezo zamanani.	Usuku olu- 1 Khetha omnye okanye emibini imisebenzi ebandakanya ukufunda usebenzisa intshukumo yomzimba

Iveki yama- 27	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.9 **Ukwahlula ngokwamaqela nokwaba ngokulinganayo okukhokelela kulwahlula-hlulo**	**Ukufunda usebenzisa intshukumo yomzimba** Yakha iiseti usebenzisa abafundi: **Imizekelo:** 1. Abafundi mabakhe amaqela ngaba 2, 3, 4, 5 nangaba- 6.Bala ukuba bangaphi abafundi kwiqela. 2. Zoba iimilo ezinkulu kwikonkriti okanye esantini. Abafundi benza amaqela, imizekelo, abafundi aba- 4 phakathi kwemilo. 3. Ngexesha lokutya utitshala uthi: “ungaya kwiqela labafundi abane ukuyohlamba izandla”okanye uthi: “ abafundi abane mabaye kuhlamba izandla”. 4. Khetha abafundi abasi-7 usebenzisa izicengcelezo zokubala. 5. Abafundi abasi -7 mabalinganise babeziintaka benze ngathi kukho umithi besebenzisa izinto zokudlala zokugwencela zaphandle okanye izitulo neetafile ngaphakathi. 6. Utitshala wenza umdlalo wokuthumela iintaka ezimbini emithi (abafundi ababini bagwencela kwisixhobo). Intaka nganye ngexesha ibhabhela emthini. “Ziingaphi iintaka emthini ngoku? Zingaphi emhlabeni? 7. Pinda wenze amaqela abafundi usebenzisa amanani ukusuka ku-1 ukuya kwi-7. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** **Imizekelo:** 1. Utitshala unika abafundi izinto zokubala. Abafundi mabenze iiseti ezi- 4 ngezinto zokubala. Yenza enye iseti yoonontathu. “zingaphi izinto zokubala kule seti intsha? 2. Abafundi mabazobe izangqa ezimbini ephepheni. Utitshala makanike imiyalelo, abafundi mabapakishe izinto zokubala besenza iiseti ezimbini ukwenzela kubekho iseti enezinto zokubala ezingaphezulu kunezinye iiseti. Buza imibuzo enje ngo”yeyiphi iseti enezinto zokubala ngaphezulu/ ngaphantsi?	Sebenzisa izixhobo ezahlukeneyo ukunika ezinye iindlela zokufundisa. Izixhobo zokunyuka okanye iitafile nezitulo.  Izinto zokubala Nika abafundi iphepha nekhrayoni izinto zokubala 	

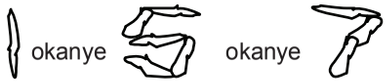
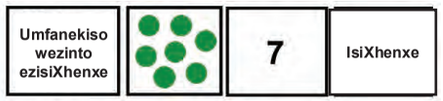
Iveki yama- 27	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
4.4 **Umthamo/Ivolumu**	**Thelekisa uze ulandelanise ngokwenza izinto ngezinto usebenzisa isigama esicacisayo:** a) umthamo b) ayinanto, izele,incinci kune, zininzi kune, kakhulu, kancinci) **Ngomlomo:** bala izinto yonke imihla uyo kuma ku- 7. Bala usiya phambili, ubale ubuya umva uyokuma ku -7. Bethelela ulwazi olufunyenwe kwiveki yama- 26 equka umthamo **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma kwi- 6 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*? **Ukufunda usebenzisa intshukumo yomzimba**	amanzi (ngexesha lomdlalo wamanzi) nesanti (ngexesha lomdlalo wesanti) zikulungele ukuphuhlisa umthamo. Iingoma nezicengcelezo zamanani. Iindidi zezikhongozeli zeendidi ezahlukeneyo zeemilo nobungakanani.	iintsuku ezi- 2 Okanye imisebenzi ekhethiweyo emibini okanye emithathu
	Abafundi maba: - Cwangcisa izikhongozeli ezibini okanye ezintathu ngokwemithamo, ngamanye amazwi, sesiphi isikhongozeli esinokuthatha ezininzi okanye ezimbalwa?abafundi BangaHlola ukuqashisa kwabo ngokugalela amanzi kwizikhongozeli ezingenanto babale ukuba sesiphi esithatha ezona komityi ezininzi.Yongeza inani lezikhongozeli ukuyenza nzima ngakumbi. - Abafundi Bangasebenzisa ikomityi ukulinganisa ukuba zingaphi iikomityi zerayisi, imbotyi okanye isanti ukugcwalisa. - Funa izikhongozeli eziyeleleneyo (imiz.ibhakethi kwipitsi yesanti) ukuqala kuncinci ukuya ku- nkulu. - Nika abafundi iindidi zezikhongozeli (iindidi zobungakanani neemilo)uze ubuze imibuzo: o "Zeziphi izikhongozeli ezinokuthatha awona manzi okanye isanti? o Xa ugalela amanzi kwisikhongozeli ukusa kwesinye, ingaba uzakusigcwalisa?" - Abafundi mabazikhangelele ukuba kwenzeka ntoni xa isikhongozeli singagcwaliswanga ncam xa kuphinde kwagalelwa amanye, imizekelo- yongeza amabhastile/iimabhile ezicocekileyo, iibhloko zeLego, iibhloko zeplastiki, imizekelo, abafundi bayiyatha imidlalo yokuqashela xa beqashela ukuba sesiphi isikhongozeli esithatha umthamo omkhulu, bakhangele iimpendulo zabo ukuba baphumelele na.(utitshala uyacacisa ukuba izito ezidadayo azichaphazeli ubungakanani bamanzi).	ikomityi ikomityi irayisi iimbotyi Iindidi zobungakanani zamabhakethi kwipitsi lwesanti. Iindidi zezikhongozeli zeendidi ezahlukeneyo zeemilo nobungakanani. amanzi Isanti Izinto ezinje ngamabhastile acocekileyo, iibhloko ze Lego, iibhloko zeplastiki.	

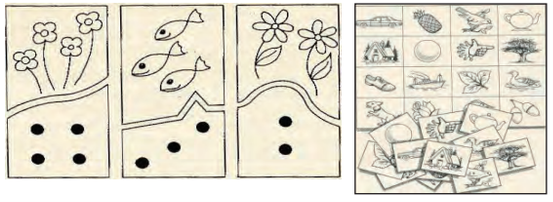
Iveki yama- 28	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.1 **Ukubala izinto**	• **Bethelela ulwazi abalufumeneyo kuquka inani- 7** **NGomlomo:** bala izinto yonke imihla uyo kuma kwi -7. Bala usiya phambili, ubale ubuya umva uyokuma kwi- 7. **Bethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma kwi -7 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*?	Iingoma nezicengcelezo zamanani.	Usuku olu- 1
	Ukufunda usebenzisa intshukumo yomzimba - Abafundi ababini babizwa ngaphambili. Abanye abafundi bayababala.Abafundi ababini aBangaphambili baphakamisa iisimboli ezinamanani. - Yongeza omnye umfundi ngaphambili. Abanye abafundi bayababala. Umfundi omnye makaphakamise isimboli enenani u -3. - Qhuba kude kube nabafundi abasi- 7 ngaphambili.	Amakhadi eesimboli aquka u- 1 ukuya ku- 7.	
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D - Beka iinkonkxa ezisi- 7 ngomgca umz.  - Abafundi mababeke imbewu/ ilitye kwinkonkxa yokuqala, ezimbini kweyesibini, ezintathu kweyesithathu, baqhubekeke zide iinkonkxa zosi- 7 zibe nnembewu/ namatye njengokuba kubonisiwe ngaphandle. - Thatha iikhrayoni (phakathi kwe- 10 ne- 15) bazifake ekomityini. Abafundi mabaqashele ukuba zingaphi ezisekomityini. Mabaxoxe impendulo. - Bonisa ukuba zibalwa njani ngokukhupha ibenye ngexesha bazibeke ngomgca.	linkonkxa ezisi 7ezinesimboli zamananiezincanyathiselwe kuzo limbewu okanye amatye likhrayon neemagi	

Iveki yama- 28	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.3 **Iisimboli zamananni namagama amanani .**	• **Nakana isimboli yenani negama lenani elibandakanya u- 7.** **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso .** Masenze umdlalo: - Abafundi mabahlale kwisangqa.Beka ikhadi elinenani liqubudiwe phambi komfundi ngamnye. (inokuba yisimboli, igama, amachaphaza okanye umfanekiso equka amanani u- 1 ukuya kwi- 7) - Fundisa abafundi ukugqithisa amakhadi kumfundi olandelayo ngokuwatshibiliza ngobuso phantsi emethini. - Abafundi bayacengceleza: “Inani eliyimfihlo, inani eliyimfihlo, linoba lithini? Mandikrobe” - Abafundi baya kroba emakhadini. - Utitshala uphakamisa ikhadi lakhe lenani. - Abafundi abanamakhadi afana nakatitshala baphakamisa awabo, bathi: “ndizakuliphakamisa ikhadi lam phezulu, ukwenzela wonke ubani abone”.		Usuku olu- 1
3.2 **Izinto ezinokwakheka kuka- 3-D**	• **Yakha izinto ezinokwakheka kuka-3-D usebenzisa izinto eziphathekayo** • **Kopa isakhiwo kwikhadi eliyiliweyo okanye elinomfanekiso** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Umfundi wakha isakhiwo esifana nesakhiwo esisemfanekisweni. - Kopa uyilo olusemfanekisweni usebenzise iphegibhodi. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Wandise lo msebenzi kubuGcisa obubonwayo. - Nika umfundi ngamnye iphepha elinezangqa ezikhulu nezincinci, oonxantathu nezikwere. Abafundi maba: - Sike iimilo bakhe izakhiwo ezinokwakheka kuka 2-D ephepheni bazincamathisele. - Hombise imifanekiso ngemizobo.	“Iimilo zeLogi” izakhono zebhloko “iibhloko zengqondo” Nokuba zeziphi (pegboard) izixhobo zokwakha Iphegibhodi Izangqa ezinkulu nezincinci, nxantathu nezikwere ephepheni. Izikere, iglu	Usuku olu- 1 Iyaqhubeka

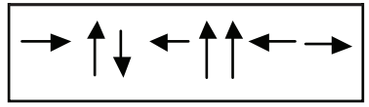
Iveki yama- 28	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
3.4 **Ulingano-macala**	• **Phuhlisa ukukwazi ukubona umgca ophakathi kubo** **Ukufunda usebenzisa intshukumo yomzimba** Abafundi maba: - Khumbule ulwazi obunalo; bamba amalungu omzimba ngemiyalelo. Dlala "uSimoni uthi: bamba...." - Nika eminye imiyalelo apho abafundi bawela umgca ophakathi njenge: "bamba idolo lakho ngempumlo, bamba igxalaba lakho ngendlebe.Bamba idolo lakho lasekhohlo ngonyawo lwasekunene. Bamba ingqiniba yakho ngesandla sakho, njl.	Umdlalo: "USimoni uthi, bamba....."	Mabanakane umgca wolingano-macala kubo na-kokubangqongileyo. • Bawela umgca ophakathi kubo
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Abafundi maba: - Zobe izangqa ebhodini. - Zobe imigca ebhodini. Qinisekisa ukuba abafundi bawela umgca ophakathi. - Zobe umgca ebhodini udibanisa ichokoza kwelinye elikude kwelinye. - Zobe umzobo osisi- 8 oleleyo ebhodini. Sebenzisa iintshukumo ezinkulu ukuqinisekisa ukuba abafundi bawela umgca ophakathi. (Abafundi basebenzisa izandla zasekunene nasekhohlo.)	Abafundi bazoba ebhodini 	
	Ukusebenzisa imilo enokwakheka kuka 2-D okanye imifanekiso Nxulumanisa nobuGcisa Bokubona Abafundi maba: - Peyinte kwiphephandaba ukusuka ekunene nasekhohlo.	Amaphephandaba amabini kumfundi ngamnye Ipeyinti nebhrashi	

Iveki yama- 28	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
4.3 **Ubunzima**	**Thelekisa, ulandelelanise izinto eziphathekayo ngokwenza usebenzisa isigama esifanelekileyo esicacisayo:** - ubunzima imizekelo, ikhaphu khaphu, inzima,ikhaphu khaphana,inzinyana • **Fundisa ingqiqo- "ubunzima" imizekelo - ukuthatha umlinganiselo wobunzima (ukuveyisha) kuthetha ukuba into inobunzima obungakanani** - ikhaphu khaphana/ inzinyana Ukuthatha umlinganiselo wobunzima kuthetha ukuba into inzima kangakanani. **Ukufunda usebenzisa intshukumo yomzimba** Abafundi mabaqikelele ubunzima bezinto: - Bamba ezi zinto zilandelayo, enye kwisandla ngasinye ukwenzela ukuba baqikelele ukuba yeyiphi enzima okanye ekhaphu khaphu, imizekelo o Ilityе nebhloko yokwakha. o Ikari yokudlala yeplastiki nemoto yokudlala yentsimbi. o Inkonkxa/ itoti yekofu nebhotile yesiselo. o Ibhola enkulu yerabha neyekhilikithi. Abafundi badla ngokucinga ukuba izinto ezinkulu zezona zisindayo xa kuthiwa mabaqashele phakathi kwee obhjekthi ezimbini. - Fundisa isikali, umzekelo- weyisha izinto ukubonisa impendulo echanekileyo. - Buza imibuzo enje nge"yeyiphi into enzima/ ekhaphu khaphu? Abafundi mabakhangele izinto ezinzima nezikhaphu khaphu eklasini kunezi bebeziweyishile. - Qinisekisa ukuba zikhona izikali zokuweyisha ngexesha labo lokudlala ukwenzela ukuba baqhube umsebenzi wokuweyisha. - Makubekho isikali kwikona yendlu yokudlala ukwenzela ukuba baweyishe ukuba zingaphi iibhloko eziweyisha ngokufanayo, umzekelo, iapile. 	Izinto ezinokwakheka kuka 3-D eziziindidi zobunzima, umzekelo, iibhloko zeLego, iithoyi, iibhloko zokwakha, iinkonkxa, izikhongozeli, njl. **Isikali** Ungazenzela isikali esilula: - Uzakufuna ihengari yeplastiki ebhijelweyo, - Iithabhu ezimbini zemajerini okanyeibhotile yecoke nee ziitringi. - Gqobhoza imingxuma emibini echaseneyo kwithabhu yemajerini/ iibhotile zecoke. - Ncamathisela iithabhu/ iibhotile ekugqibeleni kwehengari. – Uzakuba nesikali. - Xhoma ihengari esikhonkwaneni okanye kwihuku abafundi mabaqalise ukuveyisha – - Bonisa abafundi ukuba ihengari kufuneka ilingane rhoqo xa bezakuveyisha.	Usuku olu- 1 Khetha imisebenzi emibini okanye emithathu.

Iveki 29	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.1 **Ukubala izinto**	• **Ukubethelela ulwazi olifundiweyo ngamanani ukuqala ku- 1 ukuya ku -7** **Ngomlomo:** Bala izinto yonke imihla uyo kuma kwi -7. Bala phambili nasemmva uyokuma kwi -7. Ukubala ngokungenantsingiselo ukuqala ku-1 uyokuma kwi-10. **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma ku- 7 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*?	Iingoma nezicengcelezo zamanani.	Usuku olu- 1
	Ukusebenzisa izinto eziphathekayo eziokwakheka kuka 3-D Abafundi maba: - Qokelele amasebe. Wagcine eklasini ukwenzela xa befuna ukuwasebenzisa kwakhona. - Sebenzisa awakho amasebe, imizekelo ukubala isimboli u -5  okanye okanye njl-njl.	Amasebe	
	Abafundi maba**:** • Sebenzise iiseti zamakhadi abo anamanani u -1 ukuya ku -7.. • Mabazobe izinto zamanani ngokomyalelo katitshala, umzekelo zoba izangqa ezibini. • Mababale ukuya kwinani abalinikiweyo, umzekelo utitshala ubiza inani u-3. Abafundi mabaqhubeke ukubala... ne, ntlanu, ntandathu. • Ngexesha lokutya utitshala makabuze: "Bangaphi abafundi abanezonka ezimdaka? Bangaphi abanezonka ezimhlophe? Ingaba ngabafundi abanezonka ezimhlophe aBangaphezulu kunabanye? Zeziphi ezininzi/ ezimbalwa?" • Utitshala upakisha izinto etafileni. Abafundi mabaqikelele ukuba zingaphi izinto ezipakishiweyo.Mabazibale emva koko.	Umfanekiso nonotsheluza abanamachokoza ano 1 ukuya kwi -7 Isimboli yamanani nonotsheluza abano -1 ukuya ku -7.  Iphepha nekhrayoni	

Iveki 29	**Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe:** **Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)**		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.3 **Iisimboli zamanani namagama amanani**	• **Nakana iisimboli zamanani namagama amanani ezibandakanya u -1 ukuya kwi- 7** **Ngomlomo:** Bala izinto yonke imihla uyo kuma kwi-7. Bala ukuya phambili, ubale ukubuya umva uyokuma kwi -7. **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma kwi -7 Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*? **Ukufunda usebenzisa intshukumo yomzimba** - Beka amakhadi esimboli amakhulu eklasini okanye ngaphandle kwindawo yokudlala. - Biza le ndawo ngokuba li " Lilizwe lamanani' abafundi bona zii "nkosi namakhosazana amanani" beka isithsaba kumfundi ngamnye ezenziwe ngamakhadibhodi, zinamanani abhaliweyo ngokucacileyo.. - Nika abafundi imiyalelo enje ngo: o Bonke abafundi abanxibe bomvu mabatsibe kabini. o Bonke abafundi abaneenwele ezinde , mabachwechwe ukuya kuma ku- 6.	Iingoma nezicengcelezo zamanani. 3 5 2 Amakhadi amakhulu amanani aneesimboli Izithsaba ezaneleyo zabafundi ezenziwe ngamakhadibhodi, ezinamanani abhaliweyo.  	usuku olu- 1
	Sebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso Abafundi maba: - Zoba amachaphaza ngokwenani elinikwe ngutitshala, umzekelo zoba amachaphaza amabini. Phinda ude uye kuma ku- 7 - Yiba neeseti zeesimboli zamanani ezininzi namakhadi amagama amanani.Nika umfundi ngamnye ikhadi. Utitshala uphakamisa ikhadi abafundi abanamakhadi afana nelakhe mabaphakise awabo. - *Ingcebiso:* quka abafundi ukwenza awabo amakhadi. - Dlala imidlalo yokutshatisa isimboli yamanani namagama amanani. 	Iphepha nekhrayoni Iseti yamakhadi yamanani ano - 1 ukuya ku -7  	

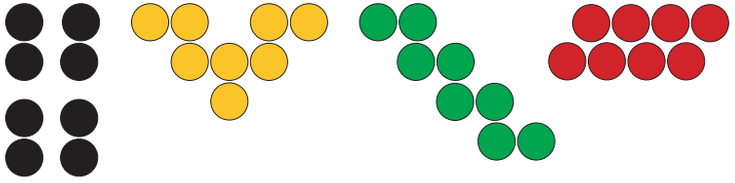
Iveki 29	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
1.7 **Ukudibanisa nokuthabatha**	• **Sombulula ngomlomo iingxaki zokudibanisa nokuthabatha ezineempendulo ukuya ku -7.** **Ukuthetha:** bala izinto yonke imihla uyo kuma ku -7. Bala phambili nasemva uyokuma ku -7. **Ukubethelela iingqiqo ezingu "zininzi/ zimbalwa"** Qhwaba kaninzi…YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla aye kuma ku- 7. Buza imibuzo, ngabaphi abaqhwabe *kakhulul/ kancinci*? **Ukufunda usebenzisa intshukumo yomzimba** - Jonga kwiveki yama- 24 nama- 27 ngemisebenzi. - Sebenzisa ezakho iimbono ukunika abafundi olunye ulwazi ngenani u -7 besebenzisa imizimba yabo. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Jonga kwiveki yama- 24 nama- 27 ngemisebenzi. - Sebenzisa ezakho iimbono ukunika abafundi olunye ulwazi ngenani u -7 besebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D.	Iingoma nezicengcelezo zamanani. Izinto zokubala	Usuku olu- 1

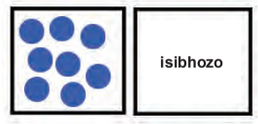
Iveki 29	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
3.1 **Indwo-bume, ukufumana indawo kunye nembonakalo**	**Ukulandela izalathiso ukuhamba okanye ufumana indawo ethile kwisithuba esithile** • **Phuhlisa ulwazi lokwalathisa ngokusebenzisa amakhadi oonotsheluza beentolo netshati yeentolo.** **Ukufunda usebenzisa intshukumo yomzimba** Abafundi mabahambe ngeendlela ezahlukeneyo: - ukuya emnyango, - ukuya efestileni, - ukuya ekoneni yencwadi, njl-njl. **Ukusebenzisa zinto eziphathekayo ezinokwakheka kuka 3-D** Abafundi maba: - Zobe isi- 8 esithe tyaba ebhodini. Qinisekisa ukuba abafundi bawela imigca yabo ephakathi. 	Ibhodi	Usuku olu- 1
	Sebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso Abafundi mabenze ngokwamaqela amancinci okanye bodwa: - Beka amehlo konootsheluza uze use ingalo yakho kweli cala ekhonjwe lutolo uthethe eli xa usenzayo, umzekelo- xa umfundi ekhupha ingalo yakhe, kufuneka athi” kunene”. - Ukwenza intshukuma ya phezulu nasezantsi umfundi angasebenzisa nokuba yeyiphi ingalo. - Bonisa isalathiso kwitshati yentolo. - Ncamathisela imizila yeenyawo yalathe ngasemnyango. **Isigama:** Phezulu/ ezantsi;phakathi/ phandle; ngaphezulu/ ngaphantsi; phambili/ emva; phambi ko/ emva; kwicala elinye/ kwelinye icala; emva ko; ekhohlo/ ekunene	Unotsheluza onotolo olunye. Guqula oonotsheluza bajonge kwiindlela ezahlukeneyo. **Itshati yotolo** (iphowusta yotolo ngokweendlela ezahlukeneyo.) 	

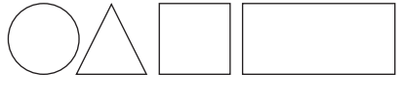
Iveki 29	Ixesha lokufundisa ekucetyiswa ukuba lisetyenziswe: Umsebenzi weklasi omnye ofundiswa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (imisebenzi yeMathematika emi ± 5 ngeveki)		
Isihloko	**Amanqaku angangcaciso**	**Izixhobo ezicetyiswayo/ ezinokusetyenziswa**	**Ixesha eliqikelelweyo**
4.3 **Ubunzima**	• **Bethelela ulwazi olufunyenwe kwiveki yama- 28 ebandakanya ubunzima: "eyona ikhaphu-khaphu / eyona inzima"** **Ukufunda usebenzisa intshukumo yomzimba** Abafundi maba: - Thelekise ubunzima bezikhongozeli ezintathu ukuya kwezintlanu (umzekelo 400g kwiinkonkxa ezingenanto) zibe nesanti enobunzima obuhlukeneyo, ukwenzela zibe nobunzina obahlukeneyo. - Zibeke ngokobukhaphu khaphu nobunzima ngokuva umlinganiselo. Emva koko, mabasebenzise isikali ukuqonda ukuba abafundi bajonge ukuba iimpendulo zabo bezichanekile na. - Iingcebiso: Linga ukuba zingaphi iintsinjana ezingqukuva zokukala okanye izikhonkwane ezinobunzima obufanayo.Kungasetyenziswa ezinye izinto. Utitshala ubeka izinto ezinobunzima obahlukeneyo kwizikhongozeli ezifana ngqo, umzekelo, izikhongozeli zesonka samasi; ibhloko nebhola yetenesi. Bafundi maba: - Ve umohluko wobunzima phakathi kweeobhjekthi ezimbini, qajela ukuba yeyiphi ekhaphu khaphu okanye enzima. - Sebenzisa isikali ukufumana impendulo echanekileyo. - Cel'umngeni kubafundi bafumane izinto eklasini ezinobunzima obulinganayo. Ipitsi lesanti nendawo yokudlala yamanzi mayibe ziindawo ezibethelela ezinje ngo ikhaphu khaphu/ inzima/ inzima ngakumbi esebenzisa izikhongozeli ezahlukenenyo, isikali, isanti emanzi neyomileyo. **NB: Hlala nabafundi ngeli xa bathethayo, baxoxayo, naxa bacacisayo.**	linkonkxa ezingenanto ezinomlinganiselo olinganayo Isikali Izinto ezinje ngebhloko zeLego Izinto ezahlukeneyo ngobunzima ezinje ngeentsinjana zokukala nezikhonkwane. Izikhongozeli zesonka samasi, enye ibe nebhloko enye inebhola yetenesi. Ipitsi lesanti Isitya somdlalo wamanzi, isikhongozeli okanye isikhongozeli esivulekileyo sokusela iinkomo.	usuku olu- 1

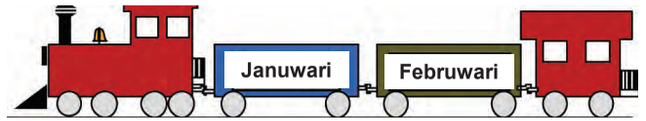
Iveki yama-30 Ukusebenzisa iveki yama-30 ukuqwalasela imiba abangekayibambi nezinto ezichongwe njengeziyimiqobo (izidingo) ekufundeni		
Inkalo yomxholo	**Isihloko**	**Imilinganiselo yoHlolo**
Amanani, ukuBala noLwalamano	**1.1 ukubala izinto**	Qikelela nokubala ngokucengceleza ukuya kwi-7 (amaculo nezicengcelezo ngamanani zidityanisiwe ukuphuhlisa ingqiqo ngamanani)
		Bala ubuya umva nokubala usiya phambili (1-7)
		Yazi ukuba ngawaphi amaxesha okuqhwaba angaphezulu/ angaphantsi
		Nakana amanani kwiimeko eziqhqelekileyo umz. Ubudala ,irejista (isigama esisetyenziswa xa kufundwa ngamanani) (UkuHlola kwakhona)
		Chonga imifanekiso yamanani namakhadi anamachaphaza ukuya kwinani lesi-7
		Zazi iisimboli zenani 5, 6, 7
		Nakana amagama amanani u-ntlanu, ntandathu, sixhenxe
		Yahlula phakathi kuka ngaphezulu, ngaphantsi nozilingana, ninzi nombalwa ukuya kwi-7
		Nakana imibala kwakunye neentlobo zezilwanyana kwimali engamaphepha yaseMzantsi Afrika.
	1.6 Ubuchule bokusombulula iingxaki zezibalo	Sebenzisa izixhobo eziphathekayo
		Cacisa ingcinga yakho ngamazwi nangemizobo okanye izinto eziphathwayo
	1.7 no 1.13 Ukudibanisa nokuthabatha	Ukusombulula ngomlomo iingxaki zokudibanisa nokuthabatha ukuya kwisi-7
Iipateni, neefankshini	**2.1 Iipateni zejiyometri**	K opa, ukwandisa nokuyila ezakho iipateni usebenzisa imifanekiso
ISithuba neMilo(Ijiyometri)	**3.1 Indawo-bume,ukufumana indwawo nembonakalao**	Yazi indawo-bume yezinto ezi-2 nangaphezulu ngokunxulumeneyo-ngaphambili kwe,ngasemva,ngaphezulu kwe,phezu,ngaphantsi,ezantsi,ecaleni kwe,embindini,ekhohlo,ekunene
		Landela imiyalelo kwibhodi yeepegi
		Zazi izalathiso kwitshathi yezalathiso
	3.2 Izinto ezinokwakheka kuka 3-D	Yakha usebenzisa umzekelo wesakhiwo
		Kopa isakhiwo kwikhadi eliyiliweyo okanye lomfanekiso
	3.3 Izinto ezinokwakheka kuka 2-D	Yakha iipazili ubuncinci izicwili ezinga-18
		Nakana ,ukuchonga nokuxela isikwere
		Qonda iimilo azifundileyo (ulwazi lweemilo)
Umlinganiselo	**4.2 Ubude**	Qikelela nokuthatha umlinganiselo wobude bezinto ezahlukileyo
	4.3 Ubunzima	Qonda amagama abonakalisa ubunzima “lula,nzima; lula kunenye, nzima kunenye; lula kuzo zonke, nzima kuzo zonke”
	4.4 Umthamo/Ivolumu	Qonda amagama abonakalisa umthamo “engenanto, egcweleyo, ngaphezulu kune, ngaphantsi kune”
Ukusebenzisa ulwazi oluqokelelwayo	**5.1 Ukuqokelela, nokuhlela izinto**	Yazi ukuqokelela, ukuhlela, ukuzoba, ukufunda nokubonisa izinto (ukucalula) ngokophawu oluthile
	5.2 Ukubonisa	
	5.3 Ukuxoxa nokunikezela ingxelo yengqokelela yezinto ezihleliweyo	

IKOTA YESI- 4 IMATHEMATIKA IBANGA LABAQALAYO(R)			
Iveki yama- 31	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku (notes) angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.1 **Ukubala**	• **Ukwazisa intsingiselo yenani i- 8** **Ngomlomo:** Ukubala izinto zemihla ngemihla ukuya kwi-8 Bala usiya phambili nokubuya umva ukuya kwi-8 Bala ngokucengceleza 1-10 **Yazisa ukubala ngoonombini usebenzisa isicengcelezo samanani** **Bethelela ukubala ngolandelelwano**: utitshala ubeka izinto ezine emgceni. Ukhomba kwinto nganye ngeli xa abalayo, eyokuqala, eyesibini, eyesithathu, eyesine. **Bethelela ingqiqo ka "uninzi nombalwa"** Qhwaba izandla amaxesha amaninzi……..YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla kasi-8 Buza umbuzo ukuba kukuphi okona kuqhwaba kungaphezulu / kungaphantsi.	Iingoma zamanani nezicengcelezo. *Bini,ne,thandathu,bhozo* *Indoda enye esangweni* *Uthi ungxamile* *Bini, ne, thandathu, bhozo* *Utitshala makasebenzise eyakhe ingoma yamanani nesicengcelezo*	Usuku olu- 1
	Ukufunda usebenzisa intshukumo yomzimba Yenza abafundi: - Babale izinyathelo ezisibhozo ngoku ngeli xa bajikeleza iklasi. - Babonise iminwe esibhozo. - Yenza abafundi: - Basebenzise ileli yenani elele phantsi (xwesileyo) - Ukuqinisekisa ukuba abafundi basoloko beqala kwi-0 (qanda). - Bachonge iisimboli zamanani ngeli xa bahamba kumgca- manani - Bahambe kwilungu ngalinye ngoku babala ngokucengceleza(counting rhythmically)	0 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 Ingqokolela yoonotsheluza besimboli yamanani u-1 ukuya kwi- 8.	

Iveki yama- 31	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku (notes) angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.3 **Iisimboli zamanani namagama amanani**	• **Ukunakana iisimboli zamanani namagama amanani** **Ukusebenzisa izinto ezinokwakheka kuka 3-D** Yenza abafundi: - Babale izinto eziseklasini ezibandakanya amanani u-1 ukuya kwi-8. - Babale ngezinto zokubala ukuya kwi-8.	Ingqokelela yezinto ezi-8 eziseklasini Izinto okanye izixhobo zokubala	Usuku olu- 1
	- Ukukhulisa ulwazi ngogcino-manani ngengqondo ngokwenza abafundi bapakishe izixhobo zokubala ezisi- 8 okanye naziphi na izinto ngeendlela ezahukeneyo umz.  Xa kubalwa, inani lezinto malingachatshazelwa bubungakanani, okanye ubume bendawo,okanye nokuba zezohlobo olunye.Umzekelo: - Cwangcisa amaqhosha a-8, iipensile ezi- 8, oohupu aba- 8, abafundi aba-8, njl. - Bala izinto ngokulandelelana okwahlukileyo umz. zibale ziqaqelene, zisondelelene, zisemgceni okanye zipakishiwe. **Sebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Yenza abafundi: - Badlale imidlalo ngokunxulumanisa inani lezixhobo zokubala kunye namagama amanani, isimboli yenani, amakhadi amachaphaza nemifanekiso ebandakanya inani i1-8. - Bakhuphele inani usi-8 ngekhrayoni.	Izixhobo zokubala ezi-8 okanye izinto ezisi-8 Unotsheluza onesimboli yenani negama lenani, amachaphaza kunye nemifanekiso umz.  iikhrayoni izixhobo zokubala	

Iveki yama- 31	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku (notes) angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.4 **Ukuchaza, ukuthelekisa nokuhlela amanani**	• **Ukusebenzisa inani usi-8 kwimeko eqhelekileyo** **Ngomlomo:** Ukubala izinto zemihla ngemihla ukuya kwi-8. Ukubala usiya phambili nokubuya umva ukuya kwi-8. Ukubethelela ukubala ngezi- 2 usebenzisa izicengcelezo zamanani **Ukubethelela ingqiqo ngo "uninzi nombalwa"** Qhwaba izandla amaxesha amaninzi……..YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla ka-8. Buza umbuzo ukuba kukuphi okona kuqhwaba kungaphezulu / kungaphantsi.	Iingoma zamanani nezicengcelezo	Usuku olu- 1
	Ukufunda usebenzisa intshukumo yomzimba Yenza abafundi: - Benze inani usi-8 ngeminwe yabo. - Bakhe inani ngomtya okanye udongwe. - Babhale iisimboli zamanani kwisithebe(tray) sentlabathi - Beka amakhadi esimboli yamanani amakhulu ngokulandelelanayo kumgangatho ukuya kwi-8.	Umtya/ iwulu okanye udongwe. Isithebe esinentlabathi Ingqokolela yamakhadi amakhulu aneesimboli zamanani	
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D Utitshala unika umfundi ngamnye iimbotyi ezi- 8, noonotsheluza abanamachaphaza asi- 8. Yenza abafundi: - Bapakishe ukhozo lwembotyi kwichaphaza ngalinye elikunotsheluza. - Babale iimbotyi. - Banxulumanise unotsheluza wechaphaza kwigama lenani nakwizixhobo zokubala.	Iimbotyi ezisibhozo kumfundi ngamnye unotsheluza onamachaphaza, unotsheluza onegama,nezixhobo zokubala 	

Iveki yama- 31	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku (notes) angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.3 **Izinto ezinokwakheka kuka-2-D**	**Ukunakana, ukuchonga nokuxela izinto ezinokwakheka kuka 2-D eklasini nasemfanekisweni** - **Ukufundisa uxande** **Ukufunda usebenzisa intshukumo** Yenza abafundi: - Benze uxande olunamacala amane angqalileyo. - Bakhe iimilo ngemizimba yabo umz. Abafundi aba- 6 bakha uxande ngemizimba yabo. - Bakhe uxande besebenzisa iminwe yabo . - Benze/ bakhe uxande nezijungqe zewulu okanye udongwe. - Bahambe ngaphandle kungqameko lwemilo yoxande.Njengokuba behamba abafundi bathi “ndihamba ecaleni koxande- linye icala elide, linye icala elifutshane, elinye icala elide, elinye icala elifutshane. - Beva iimilo ngezandla.Basebenzisa iimilo zobungakanani obukhulu okanye babeka iintlobo zeemilo kwingxowa empampathwayo (*feely bag)*.Yiba nengqokolela yamakhadi aneemilo ezizotywe kuwo.Umfundi uva imilo engxoweni aze ayitshatise namakhadi. - Bazoba imilo yoxande emoyeni, emhlabeni/ kumgangatho (ngetshokhwe) ekugqibeleni bazobe ephepheni.	Amakhadi emidlalo akhulisa unakano lweemilo. Uboya okanye udongwe “Ingxowa empampathwayo” (Feely bag) eneentlobo zemilo zejiyometri. Ukutshatisa amakhadi neemilo ezizotywe kuwo. Iphepha elibukhulu buyi A4 nekhrayoni	Usuku olu- 1
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D ngokobungakanani,umbala nemilo Yenza abafundi bakhangele izinto eziziingxande eklasini. **Ukusebenzisa iimilo/imifanekiso ezinokwakheka kuka 2-D** - Ukuchonga imilo eluxande kwimifanekiso - Ukuchonga zonke iimilo ezazisiweyo ukuza kuthi ga ngoku kwimifanekiso. **Ukuhlela izinto ezinokwakheka kuka -3-D no- 2-D ngokobungakanani, umbala nemilo.** - Ukuhlela ingqokolela yezinto ngokobungakanani, umbala nemilo.	Izinto ezibuxande eklasini. Zonke iimilo ezifundiweyo ukuza kuthi ga ngoku: iintlobo zemifanekiso ezineemilo kuzo. 	

Iveki yama- 31	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku (notes) angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
5.1 **Ukuqokelela nokuhlela izinto**	• **Ukubethelela ingqiqo yokusebenza ngolwazi oluqokelelweyo ngokuqokelela izinto eklasini okanye kokusingqongileyo ngokweempawu ezinikiweyo, umzekelo, imihla yokuzalwa yabafundi .** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** **Ukuqokelela nokuhlela ulwazi** - Ukusebenzisa itshati yemihla yokuzalwa, ukuchaza imihla nenyanga yokuzalwa.. - Abafundi bancedisa ekwenzeni igrafu ukubona ukuba yeyiphi inyanga yonyaka ebonakala inemihla yokuzalwa emininzi. - Utitshala uzoba igrafu yeenyanga ezili-12 zonyaka. - Ngoncedo lukatitshala abafundi babeka amagama abo belandela inyanga yomhla wokuzalwa komfundi ngamnye .	**Itshati yomhla wokuzalwa**  	
5.2 **Ukubonisa ulwazi lwengqokelela yezinto ezihleliweyo**		Ikhadi elinamagama abafundi . Zoba imiqolo eli-12 kumcu omkhulu wephepha.Bonisa ngekhadi lamagama iinyanga abafundi abakhumbula ngazo imihla yokuzalwa.Sebenzisa iishiti ezi± 3 zephepha elibukhulu bungama A2 elizotywe imiqolo.	
5.3 **Ukuxoxa nokunika ingxelo ngengqokelela yezinto ezihleliweyop**	Utitshala ubuza imibuzo enjengale: - “Yeyiphi inyanga enemihla yokuzalwa emininzi?” - “Yeyiphi inyanga enemihla yokuzalwa emincinane?” - “Ziziphi iinyanga ezinenani elifanayo lemihla yokuzalwa? Ziyalinganal.” - “Ziziphi iinyanga ezinamakhwenkwe amaninzi akhumbula imihla yawo yokuzalwa”? - “Ziziphi iinyanga ezinamantombazana amaninzi akhumbula imihla yawo yokuzalwa”? Abafundi baxoxa ngezigqibo ezilandelayo: - UJanyuwari uneyona mihla yokuzalwa mininzi. Abafundi abane bakhumbula imihla yabo yokuzalwa ngoJanyuwari. - Akukho zikhumbuzo zamihla yakuzalwa ngoMatshi.Inye inyanga apho kungekho bafundi bakhumbula imihla yabo yokuzalwa. - Ezinye iinyanga zinemihla yokuzalwa elinganayo njl. Ziziphi ezi nyanga?		

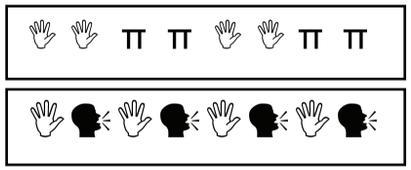
Janyuwari	Februwari	Matshi	Aprili	Meyi	Juni	Julayi
Sipho Mavi Hlubi Dolly	Dali Bongi Celiwe		Noni Bongi Tim	Kabelo Pat Thandi	Selina Lizo Titi	Thabo Jabu
4	3	0	3	3	3	2

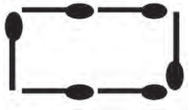
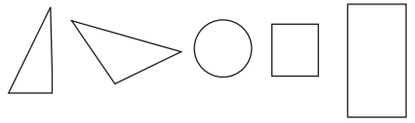
- Abafundi babala amagama babhale inani lilonke lemihla yokuzalwa phantsi kwenyanga nganye..
- Abafundi bathelekisa inani lemihla yokuzalwa kwiinyanga ezohlukeneyo.

Iveki yama- 32	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku (notes) angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.1 **Ukubala izinto**	• **Ukubethelela a ulwazi olufunyenwe kwiveki yama-31 oluquka inani elingusi- 8.** **Ngomlomo:** Ukubala izinto zemihla ngemihla ukuya kwi-8 Ukubala usiya phambili nokubuya umva ukuya kwi-8 Ukubala ngokucengceleza u-1 ukuya kwi-10 **Ukubethelela ukubala ngezi- 2 usebenzisa izicengcelezo zamanani** **Ukubethelela "uninzi nombalwa"** Qhwaba izandla amaxesha amaninzi……..YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla ka-8 Buza umbuzo ukuba kukuphi okona kuqhwaba kungaphezulu / kungaphantsi **Ukufunda usebenzisa intshukumo yomzimba** Makudlalwe umdlalo: - Utitshala udlala ngesixhobo- umz. Igubu - Abafundi bayajikeleza . - Xa igubu liyeka ukukhala, utitshala ubiza inani eliphakathi kuka- 1 ne-8 ze abafundi bazilungise ngamaqela amancinane umz. Utitshala ubiza inani eli-8 baze abafundi bazilungise ngamaqela anabafundi aba-8 - Bonisa iminwe e-8 kwizandla zakho zozibini. - Yakha ingqokelela nabafundi.Zoba isangqa esikhulu entlabathini.Yenza abafundi bakhe amaqela abafundi aba-8 ngaphakathi kwesangqa.Amaqela abafundi abasi-8 bangenza umsebenzi kunye ngemini umz. Badlale kwikona yebhloko, baye kwindawo yomsebenzi wobuGcisa (art area) njl.	lingoma nezicengcelezo zamanani Igubu	Usuku olu- 1

Iveki yama- 32	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.1 **Ukubala izinto**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Yenza abafundi: - Basebenzise izixhobo zokubala ukunakana ukuba ngawaphi amanani eza ngaphambi kwesi-8 nasemva kwesi- 5? Liliphi inani eliphakathi kwesi- 6 nosi-8 ? - Babale izinto ngambini: o Izibini zezihlangu o Izibini zeekawusi o Izibini zamehlo amabini, o Izibini zamacici, o Izibini zeendlebe o Izibini zemilenze **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Xa kuthathwa irejista yobukho utitshala ubuza:“Ingaba umfundi onenombolo yendlu okanye idilesi …… ulapha?” umfundi makaphendule ngokubonisa ukuba “ulapha”. - Phinda ngemini elandelayo ngeenombolo zemfono-mfono neenombolo zeseli(cell).	Izixhobo zokubala izibini zezihlangu, zeekawusi, zamacicic Amakhadi aneenombolo zomnxeba needilesi	

Iveki yama- 32	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.7 **Ukudibanisa nokuthabatha**	• **Ukusombulula ngomlomo izibalo zamanani zamazwi ezibandakanya inani eli- 8** **Ukufunda usebenzisa intshukumo yamalungu omzimba** - Utitshala uncedisa abafundi ukwenza iqela labafundi aba-6 nelinye iqela elinabafundi aba- 2. - Dibanisa amaqela ama- 2 ukwenza iqela eli- 1. - Buza abafundi ukuba Bangaphi abafundi kwiqela elidityanisiweyo? 6 no- 2→8.(utitshala uthi: u- 6 no zi- 2 benza i- 8) - Yenza iqela labafundi aba- 8. Thatha abafundi aba- 3 benze iqela elincinci. Bangaphi abafundi abashiyeke kwiqela elikhulu? Ba-8 uthabathe aba- 3 →5. - Khetha abafundi ababini usebenzisa isicengcelezo sokubala. - Beka amasebe ama-4 kwisandla esinye somfundi namasebe ama-4 kwesinye isandla somfundi. Mangaphi ewonke amasebe ngoku? U-4 no 4 → 8. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Nika umfundi ngamnye amasebe a-8 . - UTshidi unamasebe ama-6 umhlobo wakhe unamasebe ama-2. Mangaphi amasebe abanawo ewonke? u - 6 no - 2 → 8. - UMonica unamasebe asi-8. Ulahle amasebe ama-2.Ushiye amasebe amangaphi uMonica? Asi- 8 uthabathe 2 → 6. **Ukusebenzisa imilo ezinokwakheka kuka 2-D okanye imifanekiso** - Utitshala ubeka imifanekiso emi-2 kwibhodi yeflaneli .Wongeza eminye imifanekiso emi-5. Mingaphi imifanekiso ekwibhodi yeflaneli ngoku? Uzi-2 nozi 5 → 7. - Beka iimilo ezisi-8 kwibhodi yeflaneli. Thabatha iimilo ezi-5 kwibhodi yeflaneli. Kushiyeke zingaphi? .zisi-**8 uthabathe 5→3.**	Amaqela abafundi Amasebe Isicengcelezo sokubala: Amasebe Isicengcelezo: Yenza esakho (1, 2, 3, 4, 5 Ndakha ndabambisa intlazi iphila 6, 7, 8, 9, 10 Ndabuya ndayiyeka yahamba) Amasebe Imifanekiso/neemilo zebhodi yeflaneli.	Usuku olu- 1

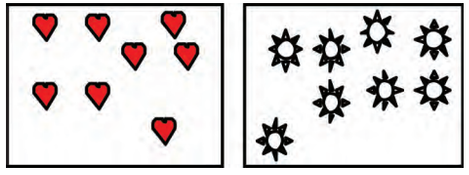
Iveki yama- 32	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
2.1 **Iipateni zejiyometri**	• **Ukukopa nokwandisa iipateni eziviwayo** **Ukufunda usebenzisa intshukumo yomzimba** Abantwana bahamba nesingqi somculo ngemizimba yabo umz.. - ngqisha, ngqisha, ngciloza,ngciloza..... - Tsiba ngomlenze omnye, tsiba ngemilenze emibini,tsiba ngemilenze emibini..... **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D .** Nxulumanisa nobuGcisa beQonga, umculo kwiZakhono zoBomi Abafundi bahamba nesingqi somculo ngezandla zabo baphathe amathanga abo umz. - Qhwaba, qhwaba, betha,betha (qhwaba ngezandla ubethe amathanga ngezandla. - Utitshala wenza amakhadi esingqi abafundi bawaphinde ngokuqhwaba isingqi (basebenzise izandla ukuqhwaba neenyawo ukungqisha) Umz..  - qhwaba,qhwaba, ngqisha, ngqisha, …… - qhwaba ukhwaze, qhwaba, khwaza…….	Isidlali mculo (CD) Ukubethana kwamalungu omzimba	Usuku olu- 1

Iveki yama- 32	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.3 **Izinto ezinokwakheka kuka-2-D**	**Ukunakana, ukuchonga nokuchaza iimilo ezinokwakheka kuka 2-D eklasini** • **ukubethelela ulwazi ngoxande** **Ukufunda usebenzisa intshukumo yomzimba** Yenza abafundi: - Benze/bakhe iimilo ngemizimba yabo umz.abafundi aba-4 bakha uxande ngemizimba yabo. - Bakha uxande besebenzisa iminwe yabo. - Benza uxande besebenzisa izinti ezi-6 zematshisi.  - Benza/bakha uxande ngezijungqe zewulu okanye udongwe. - Bahamba ngaphandle kwemilo yoxande. - Beva iimilo ngezandla. Beka iimilo ezahlukeneyo kwingxowa empampathwayo(“feely bag”)Yiba nengqokolela yamakhadi okutshatisa azotywe iimilo. Abafundi beva imilo engxoweni baze bayitshatise namakhadi. - Bazoba imilo yoxande emoyeni, entlabathini, kumgangatho/emhlabeni bagqibele ngokuzoba emoyeni.	Amakhadi emidlalo akhulisa unakano lweemilo. Izinti zematshisi Iwulu okanye udongwe. Ingxowa empampathwayo (“Feely bag”) eneemilo zejiyometri ezahlukileyo.  Quka iimilo ezinkulu nezincinane kunye noonxantathu bee-engile (angles)ezahlukeneyo kwingxowa empampathwayo umz.  Tshatisa ingqokelela yamakhadi ekuzotywe kuwo iimilo Iphepha elibukhulu buyi-A4 nekhrayoni	usuku olu- 1

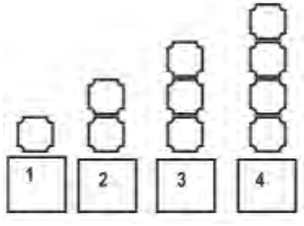
Iveki yama- 32	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.3 **Izinto ezinokwakheka kuka 2-D**	**Sebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Yenza abafundi bajonge izinto ezimile okoxande eklasini **Sebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Ukudlala umdlalo: “Yeyiphi elahlekileyo?” - Ukubeka iimilo ezinokwakheka kuka 2-D (zingabingaphezulu kweemilo ezi- 5) kwiphetshana embindini wekhaphethi umz.iimilo ezikumdlalo we-Logi . - Xoxa ngemilo nganye nabafundi. - Nika abafundi ithuba lokufunda ngentloko iintlobo zeemilo ezikwiphetshana. - Abafundi bavala amehlo abo. - Utitshala ususa enye yeemilo. - Abafundi mabavule amehlo abo batsho imilo elahlekileyo. - Phinda inkqubo. - Ukukhuthaza ukukhuliswa kweemilo zejiyometri ngokunika iintlobo zamakhadi zemidlalo enjenge “yintoni esesikwereni?” okanye nokuba nguwuphi umdlalo.	Izinto ezibuxande eklasini. Iindidi zeemilo umz. Iimilo zelogi	

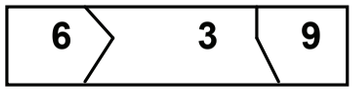
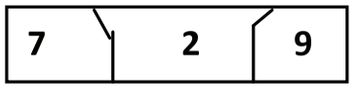
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Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.1 **Indawo-bume,ukufumana indawo nembonakalo**	**Indawo bume yezinto ezimbini okanye nangaphezulu ngokunxulumene nenye** **Ukufunda usebenzisa intshukumo yomzimba** Yenza abafundi: - Beme phakathi kwezinto ezimbini okanye abafundi ababini - Beme ngasecaleni kwentombazana enxibe ilokhwe ebhlowu - Beme ngasecaleni kwenkwenkwe eneembadada ezimbala umdaka (brown). - Bahambe phakathi kweebhokisi. - Bagaqe bejikeleza itafile. - Bagaqe phantsi kwesitulo. - Babeke isitulo phambi kwabo. - Babeke isitulo emva kwabo. - Beme kwizitulo zabo. - Bahlale kumgangatho. - Babeke izitulo ngaphezu kwabo. - Babeke izitulo emacaleni abo. - Babeke izitulo kwicala labo lasekhohlo/ lasekunene.	Izitulo ezi - 2.	usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D - Yenza abafundi bagqibezele iphazili enemifanekiso yabantu okanye izilwanyana. - Bahlohla amaso ngokomyalelo katitshala umz.hlohla amaso abomvu. Beka iliso eliluhlaza ecaleni kweli bomvu njl. - Hlohla amaso ngokokulandelelana kwemifanekiso oyinikiweyo. **Ukusebenza kumaqela amancinane.** Utitshala unika abafundi iphegibhodi kunye neephegi ezigcwele isandla. Nika le miyalelo ilandelayo: - Beka iiphegi ezimbini ezibomvu kumphezulu wekona esekhohlo. - Beka iphegi eluhlaza ngasekunene kwephegi ebomvu. - Beka iphegi enye ebhlowu ngaphantsi kwephegi eluhlaza njl.	Iiphazili Amaso aza kuhlohlwa Iiphegibhodi neephegi 	
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso - Zoba abantu okanye izilwanyana ezingenangalo okanye imilenze okanye ezingenamikhono ucele abafundi bagqibezele umzobo.	Amaphepha okusebenzela (Worksheets) anemizobo	

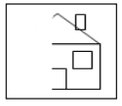
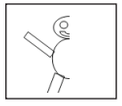
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Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.3 **Ukubala izinto**	**Ukubethelela ulwazi olufunyenwe kwiveki yama-31 neyama-32 eziquka amanani u-1 ukuya kusi-8** **Ngomlomo:** Ukubala izinto zemihla ngemihla ukuya kwi-8 Bala usiya phambili nokubuya umva ukuya kwi-8 Bala ngokucengceleza u-1ukuya kwi-10 **Bethelela ukubala ngezibini usebenzisa isicengcelezo samanani** **Bethelela ukubala ngolandelelwano** Utitshala ubeka izinto ezi-8 emgceni. Ukhomba kwinto nganye ngeli xa abalayo,eykuqala, eyesibini, eyesithathu, eyesine, eyesihlanu. **Bethelela ingqiqo "uninzi nombalwa"** Qhwaba izandla amaxesha amaninzi……..YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla ka-8 Buza umbuzo ukuba kukuphi okona kuqhwaba kungaphezulu / kungaphantsi.	Iingoma nezicengcelezo zamanani	Usuku olu- 1
	Ukufunda usebenzisa intshukumo yomzimba - Abafundi basebenzisa imizimba yabo ukwakha isimboli yenani. - Utitshala wenza amanani kwimathiriyeli eyahlukeneyo enokuviwa ngabantwana umz. Iphepha lokukhuhla (sandpaper)/ udongwe/umtya. - Benza izicengcelezo/iingoma zamanani.	Iisimboli zamanani amakhulu awenziwe ngephepha lokukhuhla	
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D - Ukusebenzisa izinto eziphathekayo ezinjenge bhloko nezilwanyana ezenziwe ngeplastikii. - Ukuzibala, ukuzihlela, ukubeka ezisibhozo emgceni njl. Yahlula abafundi ngokwamaqela. Beka imfumba yezilwanyana zasekhaya embindini weqela ngalinye Yenza abafundi: - Basebenze ngababini eqeleni beqikelela ukuba zingaphi izilwanyana ezikwimfumba. - Isibini nganye sithatha ikhadi lenani ukutshatisa ingqikelelo yabo. - Babale elona nani lezilwanyana. - Isibini singafumana inkwenkwezi ibekwe kumabunzi abo. - Phinda ngokubeka inani elahlukileyo lezilwanyana embindini wekhaphethi.	Iibhloko nezilwanyana zokudlala zasefama zeplastiki Izilwanyana zasekhaya zeplastiki ezili-9 Iiseti zamakhadi eesimboli zamanani ezimbalwa. Iinkwenkwezi zokuvuza	

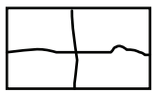
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Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.3 **Iisimbolo zamanani kunye namagama amanani**	**Ukunakana nokuchonga iisimboli zamanani namagama amanani abandakanya amanani u-1 ukuya kwi-8** **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Tshatisa isimboli yenani kumfanekiso ochanekileyo. - Umfundi makaqonde ukuba iqela lezinto linganenani elifanayo lezinto.  - Abafundi mabakhombe kwinto nganye njengoko bebala. - Abafundi mabakwazi ukutshatisa into nenye umz.intliziyo enye nelanga. - Batshatise umfanekiso okunotsheluza, unotsheluza wamachaphaza, isimboli yenani, unotsheluza wegama lenani, inani lezixhobo zokubala ezifanayo	Umfanekiso noonotsheluza beesimboli zamanani Izixhobo zokubala  Ingqokolela yamakhadi amanani equka amanana u-1 ukuya kwi-8	

Iveki yama-33	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.4 **Chaza,uthelekie uze ulandelelanise**	• **Ukulandelelanisa nokuthelekisa ingqokelela yezinto kusetyenziswa "ungaphezulu kune/ngaphantsi kwe" no "zilingana" ukuya kwi-8** **Ngomlomo:** Ukubala izinto zemihla ngemihla ukuya kwi-8 Bala usiya phambili nokubuya umva ukuya kwi-8 **Bethelela ukubala ngezi- 2 usebenzisa izicengcelezo zamanani** **Ukubethelela ingqiqo ka "ninzi no-mbalwa"** Qhwaba izandla amaxesha amaninzi……..YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla kasi-8 **Ukufunda usebenzisa intshukumo yomzimba** - Utitshala ubeka iibhloko ezisi-8 etafileni. Abafundi mabaqikelela inani leebhloko ngaphandle kokuzibala. - Utitshala ubuza: o "ingaba iibhloko zingaphezu kwesithathu?" o Abafundi bajonga impendulo yabo ngokubala iibhloko o "belusondele kangakanani uqikelelo lwakho? **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Yakha iqela labafundi aba- 4.Nika iqela ngalinye izixhobo zokubala ezi-8 nephepha elizotywe izangqa ezibini ezikhulu.Biza izangqa ngeendlwane. - Abafundi babeka izixhobo zokubala kwindlwana nganye ngokomyalelo katitshala batsho ukuba zingaphi - Abafundi bathelekisa "iindlwana" baxele ukuba yeyiphi indlwana "engaphezulu kunenye", "engaphantsi kunenye", "efanayo" okanye enezixhobo zokubala "ezilinganayo".	lingoma nezicengcelezo zamanani iibhloko Izixhobo zokubala Iphepha elibukhulu buyi A4 elineendlwana ezimbini ezizotyiweyo. 	Usuku olu- 1

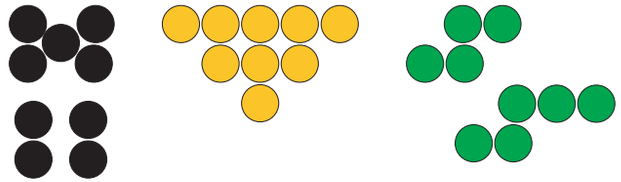
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Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.4 **Chaza,uthelekie uze ulandelelanise**	Yahlula abafundi ngokwamaqela - Nika iqela ngalinye iityhubhu zeyunifekisi ezincamathelanayo (unifix cubes) **ezininz**i nengqokelela yamakhadi eesimboli zamanani aquka amanani u-1 ukuya kwisi-8 - Yenza iqela lenze incochoyi (ithawa) uze uliphawule ngelebheli incochoyi nganye ngenani leetyhubhu ezisetyenzisiweyo umz.  **Iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Utitshala ubonisa amakhadi amabini anamachaphaza amanani ahlukileyo nemifanekiso. - Yenza abafundi bathelekise amakhathi anemifanekiso namachaphaza ukuchonga e"ngaphezulu kunenye","ngaphantsi kunenye" no"zilingana".	libhokisi ezizizikwere ezincamathelanayo (Unifix cubes) Amakhadi eesimboli zamanani u-1ukuya kusi-8 Oonotsheluza bamachaphaza nemifanekiso  	Usuku olu- 1
1.13 **Ukudibanisa nokuthabatha**	• **Ukusombulula ngomlomo iingxaki zokudibanisa nokuthabatha ukuya kwi-8** **Ngomlomo:** Ukubala izinto zemihla ngemihla ukuya kwi-8 Ukubala usiya phambili nokubuya umva ukuya kwi-8 Kubethelela ukubala ngezi- 2 usebenzisa izicengcelezo **Ukubethelela ingqiqo ngo "ninzi no-mbalwa"** Qhwaba izandla amaxesha amaninzi……..YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla ka-8 Buza umbuzo ukuba kukuphi okona kuqhwaba kungaphezulu / kungaphantsi.	Iingoma nezicengcelezo zamanani	usuku olu- 1

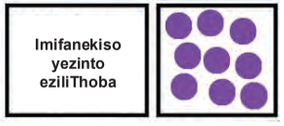
Iveki yama-33	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.13 **Ukudibanisa nokuthabatha**	**Ukufunda usebenzisa intshukumo yomzimba** Imizekelo**:** 1. Utitshala ubiza abafundi aba-3 ukuba beze ngaphambili.Abafundi bayababala. Utitshala ubiza abanye abafundi aba-2 abuze ukuba: “Bangaphi abafundi bebonke?” 2 → 5. (utitshala uthi: u-3 no- 2 benza u- 5) 2. Utitshala upakisha izitulo ezibini. Ongeze ezimbini ngaphezulu. Zingaphi izitulo eziphaya ngoku? Uzi- 2 nozi- 2 →uzi- 4. 3. Utitshala uphakamisa isandla esinye.aze athi: “bala iminwe yam. Ukuba ndifihla umnwe omnye, mingaphi iminwe oyibonayo? Zi- 5 uthabathe ibe- 1 → 4. 4. Yenza abafundi babale iminwe kwesinye sezandla zabo. Fihla umnwe wakho omnye; mingaphi iminwe oyibonayo? Zi-5 uthabathe ibe-1 →zi- 4. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Yenza abafundi bapakishe izixhobo zokubala ezi-6 uze wenze oku kulandelayo: - Utitshala unika umfundi ngamnye izixhobo zokubala ezi-6. Utitshala unika imiyalelo ze abantwana baphendule umz.pakisha izixhobo zokubala ezi-2, yongeza esinye, yongeza ezinye ezi-3.Zingaphi zizonke. U- 2no-1 no-3→isi-6. - Bala izixhobo zokubala ezi-4. Bala ezi-2 ukusuka kuzi-4.Zingaphi onazo ngoku? U- 4 no- 2 →isi- 6. - Bala onke amaso onawo. Ukuba wogquma amaso amabini ngesandla sakho, mangaphi amaso owabonayo? Isi-6 uthabathe zibe-2 →zi- 4. **Ukusebenzisa iimilo okanye imifanekiso ephathekayo enokwakheka kuka 2-D** Yenza iphazili yamanani uze uvumele abafundi baphicothe ngephazili  	Izinto okanye izixhobo zokubala Iphazili yamanani	

Iveki yama-33	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.3 **Izinto ezinokwakheka kuka 2-D**	**Ukunakana,ukuchonga nokuchaza izinto ezinokwakheka kuka 3-D** • **Ukuzakhela ingqinqo yento engqondweni** • **Ukufunda usebenzisa intshukumo yomzimba** **Utitshala uchaza into abuze abafundi ukuba iyintoni umz.** - 'ndicinga ngento ebomvu, enamavili amane, iingcango ezine neefestile ezivulekayo yenze isandi "vuum".lo msebenzi ungenziwa ngamaqela ujikwe ubelukhuphiswano – elinye iqela kufuneka lichaze, elinye iqela liqikelele ukuba iyintoni na le kuthethwa ngayo - Chaza umntu uze ucele abafundi ukuba bamchonge umntu lowo . **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Bonisa umfundi umfanekiso umenze awujonge.Wuthathe ucele umfundi ukuba achaze iinkcukacha ngokokuzikhumbula kwakhe. - Thatha umfanekiso ube mnye usike iinxenye zawo.Beka umfanekiso osikiweyo neenxenye zawo ebhokisini uze ucele abafundi ukuba bakhangele iinxenye ezilahlakileyo zomfanekiso ngamnye abawukhethayo. - Zoba umfanekiso ongaphelelanga kwihetshana ucele abafundi bagqibezele umfanekiso	Nokuba ngowuphi umfanekiso umfanekiso oneenxenye ezisikiweyo umzobo ongagqitywanga  	Usuku olu-1

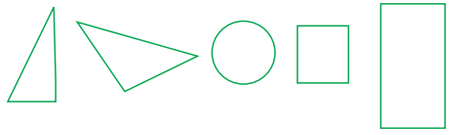
Iveki yama-33	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.4 **Ulingano- macala**	• **Ukukhulisa ulwazi lokuba umzimba womntu unecala lasekhohlo nelasekunene elinokushukuma ngokuzimeleyo** **Ukufunda usebenzisa intshukumo yomzimba** - Beka ibhanti elinwebekayo (elastic band) kwisihlahla sasekunene somfundi ngamnye. - Cula iculo elinentshukumo: “ndibeka unyawo lwam lwasekhohlo phakathi” Yenza abafundi: - Babeke izandla zabo zasekunene kwiintloko zabo. - Baphathe amadolo abo asekhohlo ngeengqiniba zabo zasekunene. - Baphathe amagxa abo asekunene ngezandla zabo zasekhohlo njl.	Iingoma/ izicengclezo zentshukumo umz. “Ndibeka unyawo lwasekhohlo ngaphakathi” Yenza ezakho izicengcelezo	usuku olu- 1
3.1 **Indawo-bume,ukufumana indawo nembonakalo**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Nika umfundi ngamnye iibhloko zokwakha Yenza abafundi ukuba bahlale kwikhaphethi: - Mababeke iibhloko kumacala abo asekunene/ amacala asekhohlo - Ngamagxa abo asekhohlo/ amagxa asekunene - Ngamadolo abo asekhohlo/ amadolo asekunene njl. - Ngonyawo lwasekhohlo /kunene njl-njl.	Ibhloko yomfundi ngamnye	
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso - Umfundi ngamnye ufumana iphepha nekhrayoni. - Yenza abafundi bazobe umgca kumbindi wephepha ukusuka phezulu kuye ezantsi nomnye umgca embindini ukusuka ekhohlo kuye ekunene. - Utitshala unika imiyalelo: o Beka umnwe wakho kumbindi womnqamlezo . o Zoba isangqa kwibhloko ekumphezulu osekhohlo. o Zoba unxantathu kwibhloko ekumzantsi osekunene . o Zoba isikwere kwibhloko ekumphezulu osekunene. o Zoba uxande kwibhloko ekumzantsi osekhohlo - Xoxa ngephowusta yomfanekiso. Abafundi baphendula imibuzo ebenza bacacise (ngaphandle kokubonisa) indawo bumilo yezinto emfanekisweni.	Iphepha 	

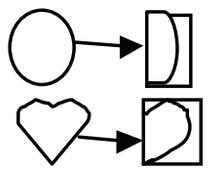
Iveki yama-34	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.1 **Bala izinto**	• **Fundisa intsingiselo yenani isi- 9** **Ngomlomo:** Ukubala izinto zemihla ngemihla ukuya kwi-9 Ukubala usiya phambili nokubuya umva ukuya kwi-9 Ukukhumbuza ukubala ngezi- 2 usebenzisa izicengcelezo zamanani **Ukubethelela ukubala ngolandelelwano**: Utitshala ubeka izinto ezine emgceni. Ukhomba kwinto nganye ngeli xa abalayo,eyokuqala, eyesibini, eyesithathu, eyesine. **Ukubethelela ingqiqo ka "ninzi no -mbalwa"** Qhwaba izandla amaxesha amaninzi……..YIMA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla kali-9 Buza umbuzo ukuba kukuphi okona kuqhwaba kungaphezulu / kungaphantsi. **Ukufunda usebenzisa intshukumo yomzimba** Yenza abafundi: - Babale ukuya kwi-9 ngoku banyuka izitephu. - Bazoba inani uli-9 esantini/ phantsi/emhlabeni bahambe phezu kwalo. - Baqhwaba izandla amaxesha ali-9. - Banakana amanani u-1 ukuya kwi-9 ngengqokelela yeesimboli zamanani amakhulu. - Sebenzisa ezakho iingcinga ukwenza abafundi babonakalise amava ngentsingiselo yenani uli-9 ngemizimba yabo/ ngamalungu emizimba yabo.	lingoma nezicengcelezo zamanani lingqokelela zeesimboli zamanani amakhulu	iintsuku ezi- 2

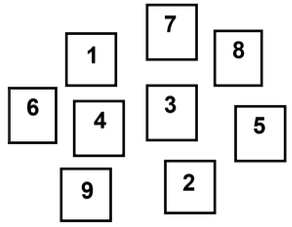
Iveki yama-34	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.6 **Ubuchule bokusombulula iingxaki**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Utitshala uyila umgca manani okanye ileli phantsi okanye emhlabeni: - Utitshala unika imiyalelo enjenga le: - Yima kwiqanda okanye qala kwiqanda. - Bala njengoko ushukuma. - Shenxa uye kwinani uzi-5. Buya umva uye kwinani u-2. Shenxela ngaphambili uye kwinani si-8. - Shenxela kwinani usi-8.Shenxa inani libe li-1 ngaphambili. Shenxa amanani ama-2 ukuya emva . - Liliphi inani eliza emva kwe-3 ? - Liliphi inani eliza ngaphambi kwe-7? - Ukukhulisa ulwazi logcino manani ngokwenza abafundi bapakishe izixhobo zokubala okanye nayiphi na into ngeendlela ezahlukeneyo umz.  Xa kubalwa, inani lezinto malingachatshazelwa bubungakanani, okanye ubume bendawo,okanye nokuba zezohlobo olunye.Umzekelo: - Cwangcisa amaqhosha ali-9, iipensile ezili- 9, oohupu abali- 9, abafundi abali-9, njl. - Bala izinto ngokulandelelana okwahlukileyo umz. zibale ziqaqelene, zisondelelene, zisemgceni okanye zipakishiwe **ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Ukusebenzisa inani uli-9 kwimeko eqhelekileyo Yenza abafundi: - Batshatise unotsheluza wemifanekiso nenani lamachaphaza afanayo. Pakisha inani lezixhobo zokubala ezifanayo	Ileli yamanani 0 1 2 3 4 5 6 7 8 9	

Iveki yama-34	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.3 **Iisimboli zamananikunye namagama amanani**	• **Ukunakana iisimboli zamanani namagama amanani** **Ukufunda usebenzisa intshukumo yomzimba** - Beka izinto ezi-5 emgceni. - Yenza abafundi bazijongisise - Abafundi mabajonge kude aze utitshala asuse enye into. - Ubafundi kufuneka batsho ukuba yeyiphi into esusiweyo. - yibuyisele uphinde amaxesha amaninzi uqhubeke ekususeni izinto ezimbini nezingaphezulu. Yenza abafundi: - bakhethe isimboli yenani uli-9 negama lenani phakathi kwabanye oonotsheluza. - Beka unotsheluza wesimboli yenani phantsi ngokokulandelelana kwamanani. - Beka oonotsheluza beesimboli zamanani ngokulandelelana okusabalakileyo Yahlula abafundi ngokwamaqela amancinane. Utitshala unika iqela ngalinye ingqokelela yamakhadi eesimboli zamanani. Nika abafundi imiyalelo umz. - Phathani inani uzi-4, beka ingqiniba yakho kwinani usi-8, hlala kwinani uzi-3, baleka ujikeleze inani uzi-5 amaxesha amahlanu njl. - Badlala imidlalo beqhakamshela izixhobo zokubala amanani namagama amanani , isimboli yenani, amakhadi amachaphaza kunye nemifanekiso. - Qinisekisa ukuba isimboli yenani negama lenani lisoloko liqhakamshelene nenani lezinto ezifanayo.	Izinto ezi-5 (ukukhumbula ngokubona) Izixhobo zokubala  Iingqokelela zamakhadi ezimbalwa eziquka inani u-1 ukuya kwi-9  Oonotsheluza abanesimboli yenani,igama lesimboli, amachaphaza nemifanekiso umz.  Izinto zokubala	

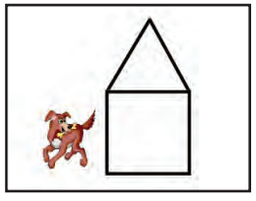
Iveki yama-34	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.1 **Indawo-bume,ukufumana indawo nembonakalo**	**Ukulandela izalathiso ,ukufumana indawo nembonakalo** • **Ukukhulisa ingqiqo yezalathiso** **Ukuzoba unxantathu omkhulu, okanye isikwere phantsi .** - Abafundi bahamba ecaleni kwemilo bebonisa ngokukhwaza ukuba bajika ekhohlo okanye ekunene ngezandla zabo - Ukufundisa usebenzisa intshukumo yomzimba Zoba unxantathu omkhulu, okanye isikwere ephepheni uwubeke phantsi umzobo lowo. Yenza umfundi omnye: - Atyhale imoto yokudlala ecaleni kwemigca. - Intsalela yabafundi yolula izandla zayo zasekhohlo okanye ekunene kwicala elingqinelanayo bathi ekhohlo okanye ekunene. Yenza abafundi: - Bachaze izinto kwimbonakalo ezahlukeneyo umz. Unodoli (umphambili/umva), indlu (umphambili/umva), umphambili/ umva wesikolo, imoto (umphambili/umva) kuxhomekeke apho ume khona. - Abafundi bachaza abakubonayo umz. Ukuba kukhona umthi ngaphambi kwendlu bachaza indawo ome kuyo umthi. **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Vumela abafundi ukuba bakwenze ngokwabo ukuya phambili/ emva ngokwalatha icala emfanekisweni.	Iimilo ezinkulu ezizotywe ephepheni Imoto yokudlala Unodoli Indlu Imoto Imifanekiso ebonisa icala ngokucacileyo umz. Icala eya kulo imoto, icala aya kulo umntu	Usuku olu- 1

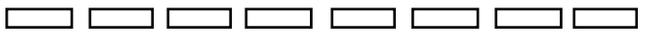
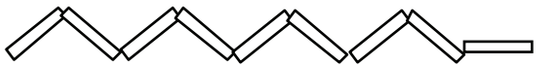
Iveki yama-34	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.3 **Iimilo ezinokwakheka kuka2-D**	**Ukunakana,ukuchonga nokuxela iimilo ezinokwakheka kuka 2-D eklasini, kwimifanekiso nokuzihlela** • **Bethelela ulwazi ngesangqa, unxantathu, isikwere noxande** **Ukufunda usebenzisa intshukumo yomzimba** Yenza abafundi babe ngababini. - Makazobe imilo kumqolo womhlobo wakhe ngeminwe yakhe. Omnye umfundi makachaze imilo leyo **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Nika iimilo zejiyometri zobungakanani nobungqingqwa obahlukeneyo. Yenza abafundi: - Bahlele iimilo zejiyometri ngokwe: zangqa, oonxantathu,izikwere neengxande . - Bahlele iimilo zejiyometri ngokobungakanani. - Bahlele iimilo zejiyometri ngokombala **Ukusebenzisa imilo ezinokwakheka kuka 2-D okanye imifanekiso** Yenza abafundi: - basike ezi milo zibalwe ngasentla ephepheni. Dibanisa iimilo ezinkulu nezincinane kunye noonxantathu bee-engile ezahlukeneyo. - Bahlele iimilo ezahlukeneyo bebonke. - Cwangcisa umfanekiso oneemilo ezisikiweyo uwusebenzise ngexesha lomsebenzi wobuGcisa.	Iintlobo ngeentlobo zeemilo Iphepha elinezangqa, oonxantathu , izikwere kunye neengxande umz.  Dibanisa iimilo ezinkulu nezincinane kunye noonxantathu bee-engile ezohlukeneyo umz.. 	Usuku olu- 1

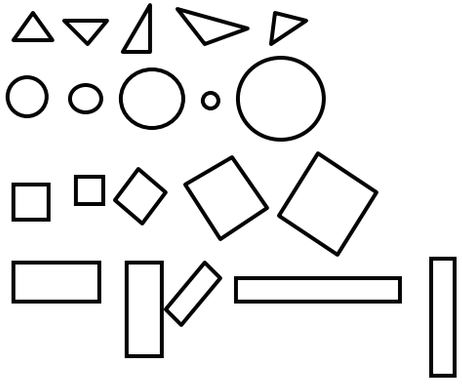
Iveki yama-34	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.4 **Ulingano-macala**	• **Ukukhulisa ulwazi lokuba lukhona ulingano-macala kwizinto** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Khangela izinto eziyinyani ezizakubonisa ulingano-macala.(icala elinye lifana nelinye icala)umz.ibhabhathane, igqabi lentyantyambo. - Utitshala nabafundi baqokelela imifanekiso eyiliweyo ngokolingano-macala umz. Imifanekiso epeyintwe ezindlwini, imifanekiso ekwiithayile, imifanekiso ekwiivazi nakwizambuleni zokuhla (parachutes). **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Abafundi basika iimilo zentliziyo okanye ivazi yentyantyambo kwiphepha eliqotywe kubini baze balihombise ngexesha lobuGcisa obuBonwayo	  Iphetshana eliqotywe kubini	**Usuku olu- 1**

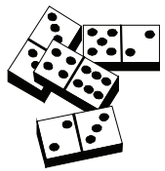
Iveki yama-35	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku (notes) angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
1.1 **Bala izinto**	• **Ukubethelela ulwazi olufumaneke kwiveki yama-34 equka inani i-9** **Ngomlomo:** Ukubala izinto zemihla ngemihla ukuya kwisi-9 Bala usiya phambili nokubuya umva ukuya kwisi-9 Bala ngokucengceleza u-1 ukuya kwi-10 **Bethelela ukubala ngezi- 2 usebenzisa izicengcelezo zamanani** **Ukubethelela ingqiqo ka "ninzi no-mbalwa"** Qhwaba izandla amaxesha amaninzi……..YEKA. Qhwaba izandla amaxesha ambalwa. Utitshala uqhwaba izandla kali-9 Buza umbuzo ukuba kukuphi okona kuqhwaba kungaphezulu / kungaphantsi.	Izicengcelezo neengoma zamanani	Usuku olu- 1
	Ukufunda usebenzisa intshukumo yomzimba Masidlale umdlalo: Utitshala ubeka phantsi iimilo zeekhadibhodi ezinkulu zamanani okanye amakhadi aquka amanani u-1 ukuya kwi-9 ngokulandelelana. Utitshala unika abafundi imiyalelo enjenga le: - Hlala kwinani uzi-6 - Beka uzwane lwakho kuzi-3 - Jikeleza inani uzi-2 kathathu. - Tsiba ngaphezu kwenani u-1. - Utitshala angathi ekugqibeleni asasaze amakhadi eesimboli zamanani.	Ingqokelela yamakhadibhodi amakhulu amakhadi eesimboli zamanani. ungazipeyinta kwizijungqe ezingqingqwa zeplasitiki okanye ibhodi eqinileyo  	
1.4 **Chaza,uthelekise ulandelelanise amanani**	• **Sebenzisa amanani kwimeko eqhelekileyo** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Yenza abafundi: - Babale izinto eklasini - Babale ngezinto zokubala - Utitshala ubeka imfumba yezinto phezu kwetafile.Yenza abafundi baqikelele ukuba zingaphi izinto ezikwimfumba. Bayazibala emva koko.	Izixhobo zokubala Izinto eziseklasini	usuku olu- 1

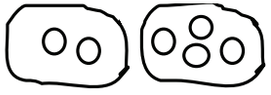
Iveki yama-35	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso Yenza abafundi: - Badlale imidlalo ngokuqhakamshela izixhobo zokubala amanani namagama amanani, iisimboli zamanani, amakhadi amachaphaza nemifanekiso. - Baqinisekisa ukuba isimboli yenani negama lenani zisoloko ziqhakamshelene nenani lezinto ezifanayo - Bakhuphela inani uli-9 ngeekhrayoni	Unotsheluza onesimboli yenani negama lenani, amakhadi amachaphaza nemifanekiso umz..  Izixhobo zokubala, iikhrayoni	
1.7 **Ukudibanisa nokuthabatha**	• **Sombulula izibalo zamanani zamazwi ngomlomo kwimeko equka amanani u-1 ukuya kwi-9** **Ukufunda usebenzisa intshukumo yomzimba** - Balisa ibali ngomthi onentaka enye. Enye iyangenelela.Zingaphi iintaka ngoku?Abafundi balinganisa ibali bezogqume ubuso. U-1 no-1 wenza isi-2. - Phinda ibali kuze kushiyeke iintaka ezisi-9	Umfanekiso womthi omkhulu	Usuku olu- 1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D - Umhlobo omnye unezixhobo zokubala ezisi-8 umz.izilwanyana zeplastiki omnye une-1 ngaphezulu. Zingaphi izilwanyana zeplastiki abanazo zizonke? Isi-8 ne-1 →9	Izixhobo zokubala ezili-9	
	Ukusebenzisa imilo ezinokwakheka kuka 2-D okanye imifanekiso - Nika umfundi ngamnye iphepha lokusebenzela elinomfanekiso womthi. Abafundi babeka isixhobo sokubala esinye emthini. Baqhubeka besongeza isixhobo sokubala esinye ngexesha	Iphepha lokusebenzela kunye nezixhobo zokubala	

Iveki yama-35	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.1 **Chaza izinto ezimbini enye ngokunxulumene nenye**	• **Chaza indawo yezinto ezimbini ,enye ngokunxulumene nenye** **Ukufunda usebenzisa intshukumo yomzimba** - Umfundi ucela umhlobo ukuba eme phakathi kwezinto ezimbini/ abafundi - Umfundi ucela umhlobo ukuba eme ecaleni kwentombazana enxibe ilokhwe ebhlowu. - Umfundi ucela umhlobo ukuba eme ecaleni kwenkwenkwe enembadada ezibhrawuni. **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** • Xhoma intambo phakathi kwezinto ezimbini. • Abafundi baxhoma iimpahla zokunxiba ngokomyalelo umz. - “xhoma ihempe kwicala elisekhohlo kwintambo yokwaneka kwimpahla” - “xhoma ilokhwe ngasekunene kwehempe “ - Xhoma itshefu ecaleni kwe .....njl.” - Xhoma ibhulukhwe phakathi kwe …. njl.” **Ukusebenzisa iimilo ezinokwakeka kuka 2-D okanye imifanekiso** • Zoba umfanekiso wendlu ngokwemiyalelo umz. - Zoba uphahla kumantla ephepha - Zoba iindonga zendlu kumbindi wephepha. - Zoba inja kwisandla sasekhohlo sendlu Iphepha malingabi likhulu kakhulu ukuqinisekisa ukuba iintlobo zeemilo zoyama kwenye ukwakha indlu 	 Iphepha likhrayoni	Usuku olu- 1

Iveki yama-35	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
3.3 **Izinto ezinokwakheka kuka 3-D**	**Ukunakana, ukuchonga nokubiza iimilo ezinokwakheka kuka 2-D eklasini nasemifanekisweni:** - Ukukwazi ukuqaphela iimilo • **Ukubethelela ulwazi olufunyenweyo ngoxande** **Ulwazi-ngemilo bubulumko bokwahlula phakathi kweemilo kokusingqongileyo, ngaphandle kobungakanani okanye ubungakanani be-engile** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** Yahlula abafundi ngamaqela . - Nika iqela ngalinye iibhloko ezingalinganiyo zokwakha ezilu-9 ezimile njengoxande. Yenza abafundi: - Bahlele iibhloko zokwakha ezimile njengoxande ngokwamaqela obungakanani. - Babale inani leebhloko zokwakha Utitshala unika le miyalelo ilandelayo: - Beka ibhloko yokwakha emile okoxande kumgca ongqalileyo.  - Beka ibhloko yokwakha emile okoxande ngokume nkqo.  - Beka ibhloko yokwakha emile okoxande kumgca ogoso-goso.  - Utitshala unika umfundi ngamnye umsonto wewulu.abafundi bakha uxande ngewulu.  Utitshala uyabaxelela ukuba amacala esikwere somfundi ngamnye awafani kodwa imilo ise luxande	Iqela ngalinye lifumana iibhloko ezingalinganiyo zokwakha ezilu-9 ezimile njengoxande Umtya wewulu	Usuku olu- 1 Ukheta eminye imisebenzi

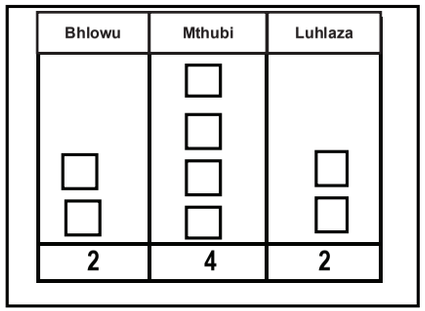
Iveki yama-35	**Ixesha elicetyiswayo lokufunda nokufundisa:** **Umsebenzi omnye weklasi ocwangcisiweyo okhokelwa ngutitshala (isangqa) wemizuzu engama ± 30 ngosuku (Imisebenzi yeMathematika ngeveki mayibe ± 5)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ubude bexesha obuqikelelwayo**
	Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso - Utitshala uzoba oonotsheluza abahlukileyo abangama-20, umnye uneendidi ezahlukileyo zoonxantathu, izangqa, izikwere kunye neengxande umz..  Utitshala wahlula abafundi ngokwamaqela . Yenza abafundi: - Khetha unotsheluza woxande kwezinye iimilo Yenza abafundi: - Khetha yonke imifanekiso eneentyantyambo phakathi kwemifanekiso yemithi namagqabi.	Amakhadi aneentlobo zoonotsheluza aBangama-20, ikhadi lilinye lineentlobo ezintlanu zoonxantathu, zesangqa, isikwere kunye noxande.	

Iveki yama- 36	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi katitshala ocwangcisiweyo (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.1 **Bala izinto**	**Bethelela ulwazi olufunyenweyo olubandakanya amanani ukusuka ku- 1 ukuya kwi- 9** **Ngomlomo:** Ukubala izinto ezisetyenziswa yonke imihla ukuya kwi-9 Bala usiya phambili nokubuya umva ukuya kwi-9. Bethelela ukubala ngezi- 2 besebenzisa izicengcelezo zamanani **Bethelela ingqiqo ka "zininzi" no "zimbalwa".** Qhwaba izandla kaninzi.....YIMA Qhwaba izandla kambalwa. Utitshala uqhwaba izandla kasi-9. **Sebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Beka izinto ngokwamaqela aquka amanani -1 ukuya ku-9, abale izinto ngokuvakalayo. - Dlala iidomino	Amaculo nezicengcelezo zamanani  Izixhobo zokufundisa eklasini. Amanani edomino	usuku olu-1
	Sebenzisa iimilo eziphathekayo ezinokwakheka kuka 2-D okanye imifanekiso Nika umfundi ngamnye umfanekiso, ichaphaza, isimboli yamanani okanye amakhadi anamagama amanani. Abafundi balandela imiyalelo katitshala - Abafundi bahlala kwisangqa. - Utitshala ubiza inani, umz. -9. Abafundi abanomfanekiso, ichaphaza, iisimboli zamanani namakhadi anamagama amanani u-9, hamba-hamba apho kwisangqa, usithi "Ndinethoba" - Yenjenjalo nakwamanye amanani. - Xa bonke befumene ithuba lokuba linani, biza amanani ngokulandelelana kwawo. - Abafundi bayema, baphakamise amakhadi abo xa inani elo lekhadi libiziwe ngutitshala - Qaphela ukuba bayakwazi ukuzimisa ngokulandelelana ukusuka ku-1 ukuya kwi -9. - Qaphela ukuba bayakwazi ukumisa amakhadi amele la manani 1, 2, no 3 ukuya kwi-9 ndawonye	Amakhadi aziintlobo-ntlobo abandakanya amanani ukusuka ku-1 ukuya ku-9, umfundi ngamnye eklasini makafumane oonotsheluza	

Iveki yama- 36	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi katitshala ocwangcisiweyo (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.4 **Chaza,thelekisa ulandelelanise amanani**	• **Thelekisa ukuba yeyiphi enengqokelela e-:** - **ngaphezu kwenye** - **ngaphantsi kwenye(mbalwa)** - **lingana nenye (fanayo** **Sebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Utitshala unika iintlobo ngeentlobo zezinto ezinjengamagqabi, amatye, iziciko zeebhotile, iikhrayoni, iibhloko njl. - Bavumele abafundi ba: - zihlele ngokwamaqela azo, umz. amatye odwa. - bale inani lezinto kwiqela ngalinye. - bonise iqela elinezingaphezu kwezinye, ngaphantsi kwezinye nezilinganayo njl. IiSeti zamanani ukuya kwi- 9 - Abafundi bahlala emethini benze iindlwane zeentaka ngewulu. - Utitshala uyalela abafundi babeke amaqanda ama- 2 kwindlwane yokuqala, ama- 4 kwindlwane yesibini. - Ubabuza imibuzo enjengale: “Yeyiphi indlwane enamaninzi/enangaphezulu kunenye”, “enangaphantsi kunenye” “enalinganayo/ afanayo” mangaphi la maqanda ewonke?” umz. “indlwane” enamaqanda ama-2 ingaphantsi “kwindlwane” enamaqanda ama- 4  - Bayalele abafundi benze iiseti zabo ezibonisa “ngaphezulu kune”, “ngaphantsi kune” ne ‘lingana / efana ne” basebenzise amanani ukuya kwi-9.	Imicu emibini yewulu kumfundi ngamnye, amaqanda ali- 9 kumfundi ngamnye	usuku olu-1

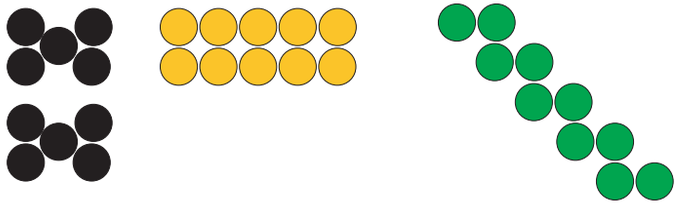
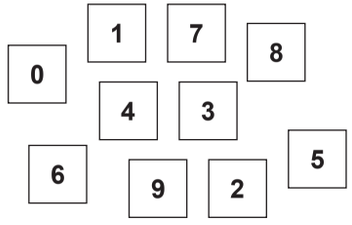
Iveki yama- 36	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi katitshala ocwangcisiweyo (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.13 **Ukudubanisa nokuthabatha**	• **Ukusombulula izibalo zomlomo zokudibanisa nokuthabatha ezibandakanya amanani ukusuka ku-1 ukuya kwi-9** **Ngomlomo:** Ukubala izixhobo zemihla-ngemihla ukuya kwi-9. Bala usiya phambili nasemva ukuya kwi-9. Bethelela ukubala ngezibini usebenzisa izicengcelezo zamanani **Bethelela ulandelelwano lokubala**: Utitshala ubeka izinto ezi- 6 emgceni. Ukhomba into nganye xa ezibala, umz. *eyokuqala, eyesibini, eyesithathu, eyesine, eyesihlanu, eyesithandathu* Bethelela iingqiqo ezinje ngezi “zininzi” no “zimbalwa” Qhwaba izandla kaninzi.....YIMA Qhwaba izandla kambalwa. Utitshala uqhwaba ukuya kumaxesha ali-9. Buza umbuzo ngokona kuqhwaba kungaphezulu/kungaphantsi kunezinye.	Amaculo nezicengcelezo zamanani	usuku olu-1
	Intshukumo yamalungu omzimba - Utitshala ubiza umfundi eze ngaphambi kweklasi. - Ubeka amanani amaso ohlukeneyo ukuya kwi-9, kwisandla somfundi ngamnye, umz. ama-4 kwisandla esinye nama-5 kwesinye - Utitshala ubeka abafundi ngamaqela abo ali-9. - Abafundi bahlala emgangathweni - Utitshala ucela ababini beme ngeenyawo. - Utitshala uyabuza: “Bangaphi abafundi abahleli emgangathweni?”	Amaso nezinto zokubala	

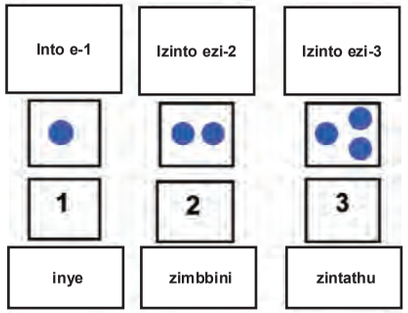
Iveki yama- 36	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi katitshala ocwangcisiweyo (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.13 **Ukudubanisa nokuthabatha**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Abafundi bahlala emethini. - Umfundi ngamnye ufumana amaso ali-9 akwikomityi yeplastiki enesosi. - Bayalelwa ukuba bathathe amaso ama-6 ekomityini yeplastiki bawabeke esosini. Bayalelwa ukuba bongeze amathathu apho esosini. Mangaphi amaso asekomotyini? 6 no 3→9. - Thatha amaso ama- 4 kwisosi uwabeke ekomtyini yeplastiki. Thatha amanye ama-5 uwadibanise kumaso asekomityini yeplastiki. Mangaphi amaso asesosini? 9 thabatha 4 uphinde uthabathe 5→0. - Thabatha amaso ama- 4 ekomityni yeplastikii uwabeke esosini. Mangaphi ashiyeke ekomityini yeplastiki? 9 thabatha 4 →5. - Thabatha amaso ama-5 ekomityini uwabeke esosini. Mangaphi ashiyeke ekomityini? 5 thabatha 5 →0. **Ukusebenzisa iimilo eziphathekayo ezinokwakheka kuka 2-D okanye imifanekiso** Yohlula abafundi ngamaqela. Nika iqela ngalinye iseti yemifanekiso yoonotsheluza - Bala imifanekiso emi- 6 kunotsheluza. Xa usongeza unotsheluza nemifanekiso emi- 2, mingaphi oya kuba nayo ngoku? 6 no 2 → 8. - Bala izinto ezisi- 8 kwikhadi lomfanekiso. Xa usogquma imifanekiso emi- 3, mingaphi oyibonayo? 8 thabatha 3 → 5. - Beka izixhobo zokubala ezilelo nani.	Xa ungenazo iikomityi neesosi zama ukuzenza. Iiseti ezimbalwa zemifanekiso yoonotsheluza	
2.1 **Iipateni zejiyometri**	• **Ukukopa ipateni yengxolo** **Intshukumo yamalungu omzimba** - Utitshala wohlula abafundi ngamaqela amathathu. Sebeza ubonakalise eqeleni ngalinye ingxolo yohlobo lwemoto abazakuyilinganisa. - Iqela ngalinye lenza ingxolo yemoto abayinikiweyo xa liceliwe ngutitshala, umz. Woosh, brrrm, zonk / Woosh, brrrm, zonk.	Imifanekiso yeendidi zeemoto/zezithuthi okanye iimatshini ezintathu.	Usuku olu-1

Iveki yama- 36	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi katitshala ocwangcisiweyo (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
5.1 **Qokelela uze uhlele izinto**	• **Bethelela ingqiqo yokusebenza ngolwazi oluqokelelweyo** **Sebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D**: Masidlale umdlalo Hlela nokubeka ngamaqela umbala okhethiweyo wodongwe lwale veki ilandelayo, umz. - Izibalo ema zisombululwe ukubonisa umbala wodongwe weveki. **Qokelela ulwazi uze ulihlele** - Sebenzisa izinto eziphathekayo ukwenza igrafu esinjengeebhloko, iityhubhu, iLego ezimele imibala yomdongwe owucwangcisele ukuwenza, umz. mthubi, luhlaza, bhlowu, bomvu njl. - Umfundi ngamnye ukhetha ibhloko enye emele umbala awukhethileyo womdongwe aza kudlala ngawo evekini.	Luhlaza, mthubi, luhlaza, bomvu, iLego (kusetyenziswa uhlobo olunye kuphela)	usuku olu-1
5.2 **Bonisa ingqokelela yezinto ezihleliweyo**	**Zoba igrafu** - Iibhloko ziyabekwa ngokwemibala ekwiphowusta.		
5.3 **Xoxa uze unikezele ingxelo ngengqokelela yezinto ezihleliweyo**	**Funda nokutolika igrafu** - Ngendlela abafundi abazikhethele ngayo imibala yomdongwe weveki iyakuba ngumthubi.  		

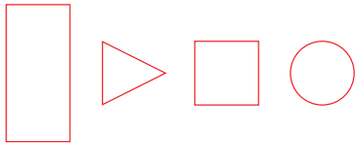
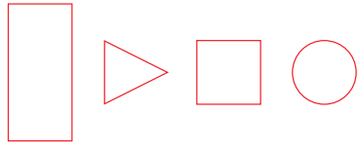
Iveki yama- 37	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.1 **Bala izinto**	• **Fundisa intsingiselo yenani i-0 (iqanda)** **Ngomlomo:** Ukubala izinto zemihla-ngemihla uqala ku-0 ukuya kwi-10. Bala usiya phambili nokubuya umva, uqala ku-0 ukuya kwi-10. **Bethelela ukubala ngezibini esebenzisa izicengcelezo zamanani** **Bethelela ubala ngokulandelelanisa amanani:** Utitshala ubeka izinto ezi- 6 emgceni. Ukhomba into nganye xa ezibala, umz. *eyokuqala, eyesibini, eyesithathu, eyesine, eyesihlanu, eyesithandathu* Bethelela iingqiqo ezinje ngezi “zininzi” no “zimbalwa” Qhwaba izandla kaninzi.....YIMA Qhwaba izandla kambalwa. Utitshala uqhwaba ukuya kumaxesha ali-10. Buza umbuzo ngokona kuqhwaba kungaphezulu/kungaphantsi kunezinye Utitshala uchaza ukuba i-0 yinto engekhoyo, ukubala izinto ezikhoyo kuqala ku-1. **Intshukumo yamalungu omzimba** - Utitshala ubonisa abafundi igama lenani i-0. - Abafundi mabachonge amalungu omzimba enza u-0, umz. o Umlomo womfundi o Iminwe yomfundi 	Amaculo nezicengcelezo zamanani	usuku olu-1
1.1 **Bala izinto**	**Sebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** - Utitshala ubeka izixhobo zokubala esandleni sakhe, esinye singabi nanto tu. - Uvula isandla esinye abonise abafundi izixhobo zokubala, avule esinye abonise abafundi ukuba asinanto. - Lo msebenzi ungenziwa kusetyenziswa abafundi. **Sebenzisa izinto ezibubonakalayo ezinokwakheka kuka 2-D nemifanekiso** - Utitshala ubonisa abafundi oonotsheluza abangenamifanekiso, nesimboli yenani u-0.	Izinto zokubala ☐ 0	

Iveki yama- 37	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.1 **Bala izinto**	• **Ukwazisa intsingiselo yenani i-10** **Ngomlomo:** Ukubala izinto zemihla-ngemihla ukuya kwi-10. Ukubala usiya phambili nokubuya umva, ukuya kwi-10 Ukubala ngokucengceleza 0-10 **Ukubethelela ukubala ngezi- 2 esebenzisa izicengcelezo zamanani** **Ukubethelela ulandelelwano lokubala**: Utitshala ubeka izinto ezi- 6 emgceni. Ukhomba into nganye xa ezibala, umz. *eyokuqala, eyesibini, eyesithathu, eyesine, eyesihlanu, eyesithandathu* **Ukubethelela iingqiqo ezinje ngezi "zininzi" no "zimbalwa"** Ukuqhwaba izandla kaninzi.....YIMA Ukuqhwaba izandla kambalwa. Utitshala uqhwaba ukuya kumaxesha ali-10. Ukubuza umbuzo ngokona kuqhwaba kungaphezulu/kungaphantsi kunezinye	Amaculo nezicengcelezo zamanani	Usuku olu- 1 Khetha imisebenzi embalwa
	Ukufunda usebenzisa intshukumo yamalungu omzimba Bavumele abafundi ba: - bengababini benze inani i-10 ngemizimba yabo (abafundi aba-4). - bale ukuya kwi-10 ushukuma ngesingqi segubu. - bambe iminwe eli-10. - zobe inani i-10 esantini, emgangathweni bahambe nakuyo. - tsibe amaxesha ali-10 - beke amanani abawasike kumakhadibhodi kwi"ngxowa empampathwayo" - thathe iseti yoonotsheluza abanemifanekiso emele inani, umz. iibhola ezimbini ekhadini elibhalwe inani u-2. Umfundi umpampatha amanani ebhegini awatshatise namakhadi	Sika amanani ekhadibhodi Isimboli enkulu yoonotsheluza bamanani	

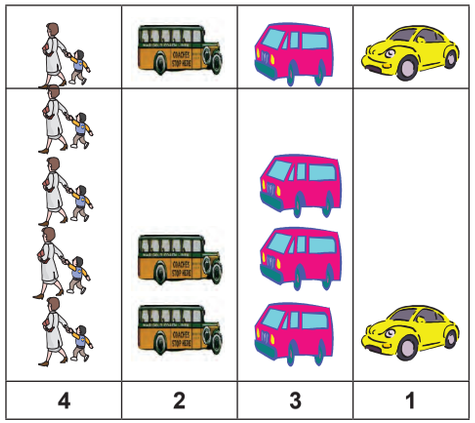
Iveki yama- 37	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
	Ukusebenzisa izinto ezibonakalayo ezinokwakheka kuka 3-D: Bavumele abafundi ba: - beke iinombolo zeefowuni zabo besebenzisa iisimboli ezinkulu zamakhadi amanani. Baxelele ngo-0 omele i-10. - Qaphele amanani ngokuwabeka ngezinto ezintlanu ngeendlela ezahlukeneyo, umz.  Xa bebala inani lezinto alitshintshwa bubungakanani, ubume, ukuzalana, umz.: - Beka amaqhosha ali-10, iipensile ezili-10, iihulahupu ezili-10, abafundi abali-10 njl. - Zibale ngolunye uhlobo lolandelelwano, umz.zibale zithe saa, zidibene, zisemgceni njl.	Amakhadi aneenombolo zeefoni zabafundi 	

Iveki yama- 37	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
	Ukusebenzisa iimilo ezinokwamheka kuka 2-D okanye imifanekiso Bayalele abafundi ba: - beke izinto ngokwamaqela azo abandakanya amanani ukusuka ku-1 ukuya kwi-10 babale ngokuvakalayo izinto ezo. Utitshala wohlula abafundi ngamaqela ama-5 Bayalele abafundi ba: - landelelanise, batshatise amakhadi emifanekiso, oonotsheluza bamachaphaza, iisimboli zamanani kunye namagama amanani ukuya kwi-10, umz.  njl-njl. Pakisha izixhobo zokubala kwikhadi lamachaphaza ngalinye	Izinto eklasini Iseti yamakhadi emifanekiso ukuya kwi-10 0 Izinto zokubala	

Iveki yama- 37	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
2.1 **Iipateni zejiyometri**	• **Dlala umdlalo wepateni- "usikhoji" njl.** Nxulumanisa nezeMithambo kwiZakhono zoBomi **Funda usebenzisa intshukumo yamalungu omzimba** - Hamba-hamba apho eklasini. Ngesingqi somculo naxa umculo uphela, biza igama lemilo, abafundi mabayenze imilo leyo ngeminwe yabo. Emaqeleni abo Bangazilinganisa iimilo ngemizimba yabo. - Zoba le pateni ilandelayo emgangathweni okanye everanda, abafundi mabahamba-hambe kwiindlela okanye iimilo ezilapho kuloo pateni.  Xoxa ngale pateni, umz. - Buza imibuzo elandelayo: - "Yeyiphi imlo elandela uxande lokuqala?" - "Yeyiphi imilo ephambi kwesangqa sokuqala? Abafundi balandela ipateni ngolu hlobo: - Utitshala uthi: "Zintle, tsiba phambi kukaMilisa", "Neli ungatsiba emva kukaSindi" - Tsiba ngeenyawo zombini kuxande. - Tsiba ngonyawo lwasekhohlo kunxantathu. - Tsiba ngonyawo lwasekunene kwisikwere. - Tsiba ngeenyawo zombini kwisangqa, jika-jika umzimba wakho ume kwisangqa. - Gqibezela ipateni.	Umzekelo wepateni ezotywe emgangathweni okanye everanda.	Usuku olu-1

Iveki yama- 37	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
2.1 **Iipateni zejiyometri**	**Sebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D**: - Umfundi ngamnye ufumana ezi milo zilandelayo:  Utitshala wenza ipateni ngeemilo zakhe. Bavumele abafundi ba: - Kope iipateni zikatitshala besebenzisa ezi milo zingentla. - Velisa ezabo iipateni ngeemilo abazinikiweyo.	Umfundi ngamnye ufumana ezi milo zilandelayo: 	
3.1 **Indawo-bume kunye nembonakalo**	**Landela izalathiso ukuhamba okanye ukufumana indawo kwisithuba esithile** • **Ukhulisa ingqiqo yezalathiso, ngokulandela imiyalelo kuquka ikhohlo nekunene** **Funda usebenzisa intshukumo yamalungu omzimba** Bayalele abafundi balandele imiyalelo katitshala: - Jonga phezulu/phantsi/ecaleni. - Goba/ekhohlo/ekunene. - Phakamisa umlenze wasekhohlo/wasekunene. - Gaqa ujikeleze itafile. - Yiya phambili/ecaleni/ngasemva - Faka isandla sakho/ sikhuphe - Yima ekunene ecaleni kwesitulo/yima ekhohlo ecaleni kwesitulo. - Yima phambi/ emva kwesitulo sakho. - Yima phakathi kwezitulo ezibini. - Jonga ekhohlo/ekunene. - Jika unyawo ulise ekhohlo. Jika unyawo ulise ekunene	Imiyalelo katitshala. **Isigama:** phezulu/phantsi phakathi/phandle phezu/ezantsi ngaphezulu/emva/ngaphantsi phambi kwe-/emva kwe- kweli cala/kwela cala ekhohlo/ekunene	usuku olu-1

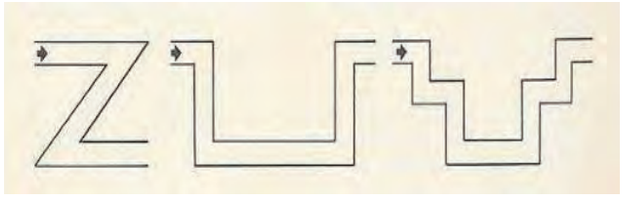
Iveki yama- 37	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
	Ukusebenzisa izinto ezibonakalayo ezinokwakheka kuka 3-D: Bayalele abafundi benze oku kulandelayo ebhodini, ba: - zobe izangqa bejikeleza  - zobe imigca engqalileyo esuka ekhohlo ukuya ekunene  - zobe imigca eya phezulu neya ezantsi.  - utitshala uzoba amachaphaza amabini, abafundi bayidibanise ngomgca. 	ibhodi	

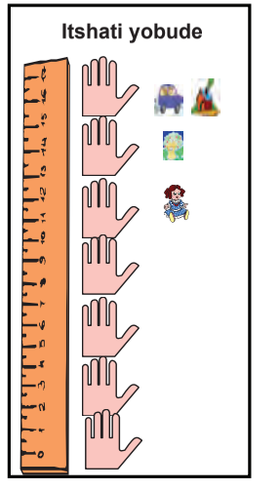
Iveki yama- 37	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
5.1 **Qokelela uze uhlel eizinto** **5.2** **Bonisa ingqokelela yezinto ezihleliweyo** **5.3** **Xoxa uze unikezelo ingxelo ngengqokelelo yezinto ezihleliweyo**	• **Bethelela ukusebenza ngolwazi oluqokelelweyo** **Sebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** - Xoxa nabafundi iindlela abeza ngazo esikolweni. - Zoba imifanekiso ebonisa izithuthi ezo zabo ndawonye nabo besiza esikolweni okanye bekhatshwa ngabazali babo, umz.  - Hlalutya iziphumo ngemibuzo	Imifanekiso yezithuthi kwiimagazini,umz. itekisi, ibhasi, imoto kunye nabafundi bekhwele kuzo. Zoba xa ungenazo iimagazini.	Usuku olu-1

Iveki yama- 38	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku ngangcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.1 **Bala izinto**	• **Bethelela ulwazi olufunyenwe kwiiveki ezingama-37 olubandakanya i-0 ukuya kwi-10** **Ngomlomo:** Ukubala izinto zemihla-ngemihla uqala kwi-0 ukuya kwi-10. Bala usiya phambili nokubuya umva, uqala kwi-0 ukuya kwi-10. Bala ngentloko ngokungenantsingiselo uqala kwi-0 ukuya kwi-10 **Bethelela ukubala ngezi- 2 esebenzisa izicengcelezo zamanani** **Bethelela ukubala ngokulandelelanisa amanani**: Utitshala ubeka izinto ezi- 6 emgceni. Ukhomba into nganye xa ezibala, umz. *eyokuqala, eyesibini, eyesithathu, eyesine, eyesihlanu, eyesithandathu*		Usuku olu-1 okanye khetha imisebenzi embalwa
	Bethelela iingqiqo ezinje ngezi “zininzi” no “zimbalwa” Qhwaba izandla kaninzi.....YIMA Qhwaba izandla kambalwa. Utitshala uqhwaba ukuya kumaxesha ali-10. Buza umbuzo ngokona kuqhwaba kungaphezulu/kungaphantsi kunezinye.	Amaculo nezicengcelezo zamanani	
	Funda usebenzisa intshukumo yomzimba - Utitshala uzoba izangqa ezili-11 (0 to 10) emgangathweni okanye usebenzise ihulahuphu. Bhala amanani ukusuka ku-0 ukuya kwi- 10 ngaphandle kwesangqa ngasinye. Biza inani abafundi bagibisele ingxowa yembotyi kweso sangqa sibiziweyo. - Khumbuza abafundi ukuba u-0 yinto engekhoyo. Xa umfundi egibisele ingxowa yembotyi kwisangqa esingenanto uzakuphuma kulo mdlalo. - Umfundi ugibisela ingxowa yembotyi kwisangqa esihambelana nechaphaza okanye nekhadi lomfanekiso eliboniswe ngutitshala. - Umfundi ugibisela ingxowa yembotyi kwisangqa esiboniswe kwisimboli yamanani ngutitshala. - Yenjenjalo usebenzisa amakhadi amagama amanani	Iingxowa zeembotyi ezi-10 Zoba izangqa esantini/emgangathweni okanye sebenzisa iihulahuphusi.	

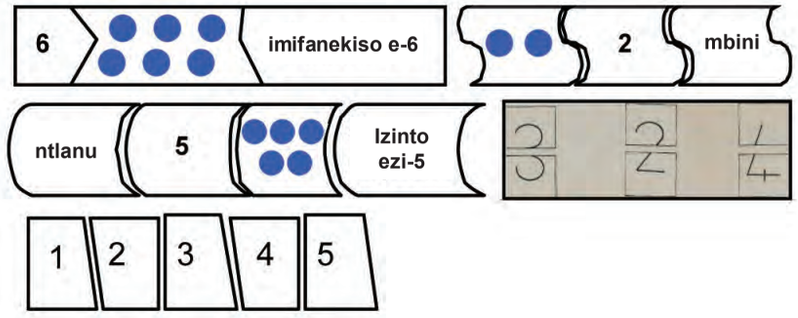
Iveki yama- 38	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku ngangcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.3 **Iisimboli zamanani kunye namagama amanani**	**Nakana, uze chonga iisimboli zamanani kunye namagama amanani** **Sebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** Bavumele badlale umdlalo: - Bhala igama lenani kwicala elinye lekhadi, isimboli yamanani kwelinye icala - qala ku-0 ukuya kwi-10.(sebenzisa iiseti ezimbalwa). - Mabafunde igama lenani baqikelele isimboli yenani. - Mabalijonge ikhadi elo , balungise iziphoso zabo.	Iseti yamakhadi amanani eqala ku- 0 ukuya kwi-10 Amakhadi abandakanya amanani, ukuqala ku- 1 ukuya kwi-10 namagama amanani kwicala elinye nesimboli yenani kwelinye icala. (Yenza iiseti ezimbalwa ukuze abafundi babe nawabo amakhadi).	
1.4 **Ukuchaza, ukuthelekisa nokulandelelanisa amanani**	• **Fundisa ulandelelwano lwamanani, umz. *eyokuqala, eyesibini, eyesithathu, eyesine, eyesihlanu, eyesithandathu* ... eyokugqibela.** Le ngqiqo ikhuliswa emva kwethuba nangokuleyibhelisha iimeko ezizenzekelayo apha eklasini, umz. yimani emgceni siya phandle, “USiya ngowokuqala, uHelen ngowesibini .....” **Funda usebenzisa intshukumo yomzimba** - Mabadlale ugqatso. Ngowuphi ofike kuqala/ owesibini/owokugqibela? **Dlala umdlalo – “Yeyiphi eyona”?** - Cela abafundi abahlanu bahlale ezitulweni zabo, benze umgca. - Utitshala uthi: “Ndicinga omnye waba bafundi. Umfundi unxibe ijezi ebomvu.” - Qala ngomfundi ongaphambili, bajikeleze bonke ubabamba, ubabuze: “Ingaba ungumfundi wokuqala, wesibini, wesithathu ... njl.? Abafundi aba-5 mabeme phandle kumanqwanqwa .Utitshala makabeke ikhadi lesimboli yamanani efanelekileyo ezantsi komfundi ngamnye kumanqwanqwa. Bonisa umfundi kwinqwanqwa: - sokuqala. - sesibini. - sesithathu njl’. Umfundi okwinqwanqwa lokuqala uveza ikhadi lesimboli yamanani emva kokuba ibiziwe njengempendulo ngumhlobo wakhe. Yenjenjalo ude uye kumfundi wesi- 6.	Izitulo ezihlanu Iseti yamakhadi eesimboli zamanani aqala ku-1 ukuya kwi-10 Zenzele xa kungekho zixhobo zolandelelwano	usuku olu-1

Iveki yama- 38	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku ngangcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.7 **Ukuthabatha noku dibanisa**	• **Sombulula ngomlomo izibalo zamazwi (izibalo ezingamabali) ezibandakanya i-10** **Ngomlomo:** Ukubala izinto zemihla-ngemihla uqala kwi -0 ukuya kwi-10. Ukubala usiya phambili nokubuya umva, uqala kwi-0 ukuya kwi-10. **Ukubethelela iingqiqo ezinje ngezi "zininzi" no "zimbalwa"** Ukuqhwaba izandla kaninzi.....YIMA Ukuqhwaba izandla kambalwa. Utitshala uqhwaba ukuya kumaxesha ali-10. Ukubuza umbuzo ngokona kuqhwaba kungaphezulu/kungaphantsi kunezinye **Imizekelo:** 1. Kwaye kukho iintombi ezi- 5 endlwini. Kwafika za-5 kwakhona iintombi kule ndlu. Zingaphi zizonke ngoku? 5 no 5 → 10. 2. Bala izixhobo zokubala ezi- 7. Bala ezibini ngaphezulu. Bala esinye ngaphezulu. Zingaphi zizonke? 7 no 2 no 1 → 10. 3. Kukho izixhobo zokubala ezili-10 phezu kwetafile. Kushiyeke za-4.Zingaphi ezisusiweyo? 10 thabatha 6 → 4. 4. Uneemabhile ezili- 10. Thabatha ezi- 3. Zingaphi ozishiyileyo? 10 thabatha 3→7 5. Wenze iikeyiki ezili-10. Wathengisa ezi-2 iikeyiki.Ushiye zangaphi?	izixhobo zokubala	usuku olu-1
3.1 **Indawo-bume,ukufumana indawo nembonakalo**	• **Ukulandela izalathiso uhamba-hamba okanye ukufumana indawo kwisithuba esithile eklasini** **Ukufunda usebenzisa intshukumo yomzimba** - Bacele beme emva eklasini - Bacele beme ecaleni eklasini/ nakwelinye icala ngokunjalo. - Bacele beme ngaphambili eklasini.		usuku olu-1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D: **Ingxolo inentsingiselo.** Abafundi bamamela i-**:** - intsimbi - impempe - nasiphina isixhobo sokucula. - Bangqubanisa iibhloko ezimbini zomthi.	intsimbi impempe nasiphina isixhobo sokucula iibhloko zomthi ezi-2	

Iveki yama- 38	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku ngangcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
3.1 **Indawo-bume,ukufumana indawo nembonakalo**	Abafundi bayacimela, bachonge ingxolo yentsimbi/yempempe/nasiphina isixhobo sokucula. - Abafundi bayacimela, bachonge ingxolo ukuba isuka phina.Bangagibisela ibhibhegi kwicala evakala ngakulo ingxolo, bayichaze ukuba isuka kweliphi na icala, umz. phambi kweklasi,ngakwikona yokufunda njl. - Utitshala uyala aba- 4 ukuba beme ngasedongeni apho eklasini. Abafundi aba-4 kumacala amane eklasi,umfundi ngamnye abe nesakhe isixhobo somculo sahluke kwesomnye: (intsimbi, impempe, nasiphina isixhobo sokucula, iibhloko zomthi zokucula ezi-2). - Utitshala ukhomba umfundi ngamnye, asebenzise isixhobo sakhe enze ingxolo, lowo ukhonjiweyo, umz. intsimbi - Abanye bayachaza ukuba ingxolo isukaphi, ngokukhomba ngesalathiso icala elo isuka kulo. - Bethelela ulwazi lwekhohlo nelokunene, ngokuyalela abafundi beme ngaphambi/ ngasemva eklasini, mabenze ingxolo, abanye abafundi bayichaze ukuba isuka ngaphi, ekhohlo/ekunene - Phinda oku ugqale kwisandi esivela ekhohlo nasekunene eklasini. Abafundi bathi “ekhohlo” xa isandi sisuka kwicala lasekhohlo baze bathi “ekunene” xa isandi sisuka kwicala lasekunene.	Intsimbi Impempe Isixhobo somculo nokuba sesiphina libloko ezimbini	
	Sebenzisa iimilo ezinokwakheka kuka 2-D nemifanekiso Mabagqibezele iphepha lokusebenzela, bazobe umgca ngekhrayoni phakathi kwemigca, umz. 	Iphepha lokusebenzela kunye neekhrayoni	

Iveki yama- 38	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku ngangcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
4.2 **Ubude**	• **Thelekisa uze uhlele izinto ngokwenza usebenzisa isigama esifanelekileyo ukuhaza ubude** • **Thatha umlinganiselo wobude wabafundi ngeteyiphu yokuthatha umlinganiselo** **Funda usebenzisa intshukumo yomzimba** - Zekelisa kwikota yokuqala neyesibini apho bebesenza imilinganiselo yomphakamo wetshati ngezandla. - Yenza umlinganiselo wobude bomfundi. - Beka iteyiphu ngakwimifanekiso yezandla ezibonakalisa umphakamo wetshati. - Mabulinganiswe ubude babafundi kwakhona. - Baxelele ukuba sisebenzisa isixhobo somlinganiselo omiselekileyo kway umama usebenzisa oku xa esenza ilokhwe. - Ngoku abasezozandla ezilishumi ubude kodwa bazisentimitha ezilishumi ubude - Mabathelekise imiphakamo yabo. Ngowuphi oyena mde/ mfutshane eklasini? **Sebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D:** - Umfundi ungqengqa emgangathweni,abanye babeke iibhloko zokwakha ezilinganayo emgceni ecaleni komfundi lowo ungqengqileyo. - Bayalele benze into ende/emfutshane kunomhlobo wakho	**Itshati yobude** iteyiphu yokuthatha umlinganiselo  	

Iveki yama- 39	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.1 **Bala izinto**	• **Ukubethelela intsingiselo yenani i-10** **Ngomlomo:** Ukubala izinto zemihla-ngemihla uqala kwi-0 ukuya kwi-10. Bala usiya phambili nokubuya umva, uqala kwi-0 ukuya kwi-10. Bala ngentloko ngokungenantsingiselo uqala kwi-0 ukuya kwi-10 **Bethelela ukubala ulandelelanisa amanani**: Utitshala ubeka izinto ezi- 6 emgceni. Ukhomba into nganye xa ezibala, umz. *eyokuqala, eyesibini, eyesithathu, eyesine, eyesihlanu, eyesithandathu*	Amaculo nezicengcelezo zamanani	usuku olu-1
	Bethelela iingqiqo ezinje ngezi "zininzi" ne "zimbalwa" Qhwaba izandla kaninzi.....YIMA Qhwaba izandla kambalwa. Utitshala uqhwaba ukuya kumaxesha ali-10. Buza umbuzo ngokona kuqhwaba kungaphezulu/kungaphantsi kunezinye		
	Funda usebenzisa intshukumo yomzimba Bavumele abafundi ba/be: - nze isicengcelezo samanani besebenzisa iminwe yabo elishumi. - bale amanani amaxesha utitshala ebetha itafile - qhwabe izandla kali-10. - bale izitepusi ezihamba abafundi xa bephuma eklasini okanye bedlala ihulahupu. - ngqishe iinyawo zabo ngesingqi esinye. - Beme beli-10 kwisangqa esinebhaskithi esizikithini umfundi ngamnye enengxowa yembotyi baziphose ebhaskithini zibeli-10. Mababale ngokuvakalayo xa bephosa iibhinbhegi .Qiniseka ukuba bonke abafundi baphose ebhaskithini	Iibhinbhegi nebhasikithi	

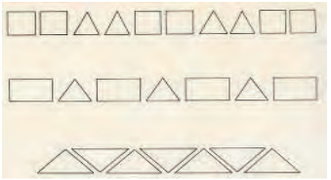
Iveki yama- 39	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.1 **Bala izinto**	**Ukusebenzisa izinto ezibonakalayo ezinokwakheka kuka 2-D okanye imifanekiso** Yohlula abafundi babengamaqela amancinci. - Banike iiphazili zamanani. - Mabadlale iphazili yamanani. - Mabaphose idayisi ukubonisa iphazili yamanani ema yakhiwe.  	Yenza iphazili yamanani ebendakanya amanani ukuqala ku-1 ukuya kwi-10	

Iveki yama- 39	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.13 **Ukudibanisa nokuthabatha**	• **Bethelela ukusombulula izibalo zokudibanisa nezokuthabatha ukuya kwi- 10** **Ngomlomo:** Ukubala izinto zemihla-ngemihla uqala ku-0 ukuya kwi-10. Bala usiya phambili nokubuya umva, uqala ku-0 ukuya kwi-10. **Bethelela ukubala ngezibini esebenzisa izicengcelezo zamanani** Bethelela iingqiqo ezinje ngezi “zininzi” ne “zimbalwa” Qhwaba izandla kaninzi.....YIMA Qhwaba izandla kambalwa. Utitshala uqhwaba ukuya kumaxesha ali-10. ngokubuza umbuzo ngokona kuqhwaba kungaphezulu/kungaphantsi kunezinye **Ukufunda usebenzisa intshukumo yomzimba** - Utitshala ubiza abafundi aba-5 bezengaphambili, ongeze omnye de aye kwi-10. - Babala ngokuvakalayo. 5 no 1 → 6. (ithi: ntlanu dibanisa inye, yenza ntandathu) 6 no 1 →7. 7 no 1 → 8. 8 no 1 → 9. 9 no 1→10. - Utitshala ubayalela ukuba babale bebuya umva 10 thabatha 1 → 9 9 thabatha 1 → 8 10 thabatha 2 → 8	Amaculo nezicengcelezo zamanani	Usuku olu-1
	Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D: Abafundi bahlala emethini. Umfundi ngamnye unezixhobo zokubala ezili-10 neziciko zeplastiki. Bayalele balandele imiyalelo: - Pakisha izixhobo zokubala ezi- 4 esicikweni sakho. Dibanisa ezi- 4 ngaphezulu. Zingaphi zizonke? 6 no 4 → 10 - Pakisha izixhobo zokubala ezili- 10. Thabatha zibe - 5. Kushiyeke zangaphi? njl-njl.	Izixhobo zokubala ezili-10 kumfundi ngamnye Iziciko zeplastiki, umz. iziciko ze-ayisi krim	

Iveki yama- 39	Ixesha lokufundisa elicetyiswayo: Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.13 **Ukudibanisa nokuthabatha**	**Ukusebenzisa iimilo eziphathekayo ezinokwakheka kuka 2-D okanye imifanekiso** - Bala izinto ezisi-8 ekhadini lomfanekiso. Xa udibanisa amakhadi omfanekiso ama-2 ngaphezulu, zingaphi onazo ngoku? - 8 no 2 →10. Pakisha kwalamanani ezixhobo zokubala. - Bala izinto ezili-10 ekhadini lomfanekiso. Xa uthabatha ezi- 3, zingaphi ezishiyekileyo? 10 thabatha 3 → 7. Pakishakwalamanani ezixhobo zokubala.	Imifanekiso yonotsheluzaebandakanya amanani ukuqala ku- 1 ukuya kwi- 10 Izixhobo zokubala	
1.4 **Chaza,thelekisa uze ulandelelanise amanani**	• **Ukuthelekisa ukuba yeyiphi enengqokelela e-:** - **ngaphezu kwenye** - **ngaphantsi kwenye(mbalwa)** - **lingana nenye (fanayo** **Ngomlomo:** Ukubala izinto zemihla-ngemihla uqala ku-0 ukuya kwi-10. Bala usiya phambili nasemva, uqala ku-0 ukuya kwi-10. **Bethelela ukubala ngezi- 2 esebenzisa izicengcelezo zamanani** **Bethelela iingqiqo ezinje ngezi “zininzi” no “zimbalwa”** Qhwaba izandla kaninzi.....YIMA Qhwaba izandla kambalwa. Utitshala uqhwaba ukuya kumaxesha ali-10. Buza umbuzo ngokona kuqhwaba kungaphezulu/kungaphantsi kunezinye **Ukufunda usebenzisa intshukumo yomzimba** - Beka abafundi aba-6 ndawonye kuhulahupu nabanye aba-4 komnye uhulahupu. - ” ingaba kukho abafundi abongezelekileyo, umfundi oyedwa, aBangaphantsi okanye abalinganayo kuhulahupu - Abafundi mabachonge ihulahupu enezingaphezu/ngaphantsi/ezilinganayo nenye	iihulahupu ezi-2	Usuku olu-1

Iveki yama- 39	Ixesha lokufundisa elicetyiswayo: Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
1.4 **Chaza,thelekisa uze ulandelelanise amanani**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Beka izixhobo zokubala ezili-10. ezi- 6 nezi- 4 etafileni. - Nika inani lezixhobo zokubala eziphezu kwetafile - Buza le mibuzo: “Ingaba zingaphezu kwesi- 7?” “ingaba ziyalingana, zingaphantsi, zimbalwa, zonele, azonelanga?” - Bayalele ba: “qonde iimpendulo zabo ngokubala izixhobo zokubala.” “ingaba uqikelele kangakanani?”	Izixhobo zokubala	
	Ukusebenzisa iimilo eziphathekayo ezinokwakheka kuka 2-D okanye imifanekiso - Utitshala ubonisa amakhadi amabini anamachaphaza amanani ohluka-hlukeneyo kwanemifanekiso kuwo. - Bavumele bathelekise amakhadi anemifanekiso namachaphaza kuwo, bachonge angaphezulu/ angaphantsi/nalinganayo	Amakhadi amabini anamanani ohluka-hlukeneyo ngamachaphaza nangemifanekiso	

Iveki yama- 39	Ixesha lokufundisa elicetyiswayo: Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
3.1 **Indawo-bume,ukufumana indawo nembonakalo**	• **Chaza izinto ezimbini okanye ngaphezulu ezinokwakheka kuka 3-D ngokunxulumene nenye.** • **Bethelela ulwazi ngokhohlo nokunene** **Ukufunda usebenzisa intshukumo yomzimba** - Utitshala ubeka imizila yeenyawo ekhohlo nasekunene emacaleni onke eklasi.  - Abafundi bagaqa ngengalo nedolo elinye lasekhohlo nelasekunene ngaxesha linye. - Benjenjalo besiya apho kukho isitya sokuhlambela  Utitshala uqhina iwulu ebomvu kwisihlahla somfundi ngomnye sasekunene. Utitshala unika imiyalelo. - Phakamisa unyawo lwakho lwasekhohlo. - Beka unyawo lwakho lwasekunene esitulweni. - Bamba idolo lakho lasekhohlo ngengqiniba yakho yasekunene.. - Tsala indlebe yakho yasekhohlo ngesandla sasekunene. - Beka isandla sakho sasekunene kwigxalaba lakho lasekhohlo, isandla sakho sasekhohlo kwigxalaba lasekunene. - Zigone.(isandla ngasinye sinqumle umbindi ukuya kwigxalaba lenye ingalo)	Imizila yeenyawo esephepheni, ebonisa ekhohlo/ekunene Isijungqe sewulu ebomvu	Usuku olu-1

Iveki yama- 39	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
3.1 **Indawo-bume,ukufumana indawo nembonakalo**	**Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Utitshala ubeka iinkonkxa ezisi-7 phezu kwetafile - Abafundi mabachaze inani elisekhohlo ku-3, elisekunene ku-6, eliphakathi ko- 3 no- 6. - Leliphi inani lokuqala nelokugqibela.  - Utitshala ubeka iimoto/oonodoli aba-3 abanxibe imibala egqamileyo phezu kwetafile. - Ubuza imibuzo enjenje: o Ngowuphi unodoli/ imoto esekhohlo? o Ngowuphi unodoli/ imoto esekunene? o Ngowuphi unodoli/ imoto ephakathi? o Yeyiphi imoto/unodoli wokuqala/wokugqibela? **Ukusebenzisa iimilo ezinokwakheka kuka 2-D okanye imifanekiso** - Ngexesha lokuyila okubonwayo abafundi benza imizila yepeyinti besebenzisa izandla zasekhohlo nesasekunene. - Bayasika bancamathelise emaphepheni bebonisa unyawo lwasekhohlo nolwasekunene.	linkonkxa ezibhalwe amanani. iimoto/onodoli aba-3.	
2.1 **Iipateni zejiyometri**	• **Yila ipateni yakhe** **Ukusebenzisa izinto eziphathekayo ezinokwakheka kuka 3-D** - Abafundi bakopa iipateni kwezo bazinikiweyo. - Bazenzela ezabo iipateni baze bazichaze. 	Amakhadi emilo nepateni.	Usuku olu-1

Iveki yama- 39	**Ixesha lokufundisa elicetyiswayo:** **Umsebenzi ocwangcisiweyo okhokelwa ngutitshala (isangqa) imizuzu engama- ± 30 ngemini (imisebenzi emi-± 5 yeMathematika ngeveki)**		
Isihloko	**Amanqaku angcaciso**	**Izixhobo ezicetyiswayo**	**Ixesha elimisiweyo**
2.1 **Iipateni zejiyometri**	**Umsebenzi wePhegibhodi (peg board):** Bayalele basebenzise izandla zasekunene kuqala, zasekhohlo, zozibini ukubeka iiphegi kwiphegibhodi. - Utitshala uxelela abafundi apho kubekwa khona iiphegi, umz. o Kumgca ophezulu. o Kumgca osezantsi. o kwicala ekhohlo. o ekunene. o phakathi. Bavumele be/ba: - nze iimilo kwiphegibhodi ngeephegi ezimibala-bala. - Utitshala uhlula-hlula ipateni elula ngeepegi kwiphegibhodi yakhe baze abafundi bakope ipateni bayibeke kwiiphegibhodi zabo.	Iphegibhodi neephegi. iiPateni ekukotshwa kuzo ngabafundi.	

Iveki yama- 40 Sebenzisa iveki 40 ukwenza izisombululo ezikhankanyiweyo okanye izithintelo kufundo.		
Umxholo	**Isihloko**	**Umlinganiselo woHlolo**
Inani nee-Opareyishini	**1.1 Bala izinto**	Qikelela nokucengceleza ukubala ukuya kwi - 10 (iingoma zamanani nezicengcelezo)
		Bala ukuya phambili nokubala ubuya umva (0-10)
		Bala ngezi- 2 (iingoma zamanani nezicengcelezo)
		Qonda ingqiqo ngo: “zininzi” no “zimbalwa” (uqhwaba)
		Qonda ukuqhwaba okuninzi/nokumbalwa
	1.4 Chaza,thelekisa uze ulandelelanise amanani	Nakana nokuqaphela amanani kwiimeko eziqhelekileyo, umz. ubudala,irejista
		Hlula phakathi ko-ngaphezulu kune-, ngaphantsi kune- eyona i -, ilingana ne – ukuya kwi - 10
		Qonda amanani olandelelwano - elokuqala, elesibini, elesithathu, elesine,njl.
	1.6 Ubuchule bokusombulula iingxaki zezibalo	Sebenzisa izixhobo ezibonwayo Chaza into oyicingayo ngamagama ,ngokuzoba nangezinto eziphathekayo
	1.7 no 1.13 Ukudibanisa nokuthabatha	Sombulula udibaniso nothabatho ngomlomo ubandakanya amanani ukuya kwi - 10
Iipateni ne fankshini	**2.1 Iipateni zejiyometri**	Kopa, yandisa nokuyila iipateni eziviwayo
		landela umdlalo ka”sikhoji”
Isithuba nemilo(Ijiyometri)	**3.1 Indawo-bume,ukufumana indawo nembonakalo**	Yazi iingqiqo:ecaleni kwe,phakathi nasembindini,ekhohlo nasekunene
		Qonda iingqiqo: ngaphambili,ngasemva,phezulu,ezantsi,ekhohlo ekunene
	3.2 izinto ezinokwakheka kuka 3-D no 3.3 Izinto ezinokwakheka kuka 2-D	yazi ukwakha ubuncinane iphazili ezingama- 24
		nakana nokuchonga isangqa, unxantathu, isikwere, nexande
	3.4 Ulingano -macala	nakana umgca wolingano -macala kwizinto
Umlinganiselo	**4.2 Ubude**	Qonda ukuba izinto zinokuthathwa umlinganiselo kusetyenziswa iteyipu
Ukusebenza ngolwazi oluqokelelweyo	**5.1 Qokelela uze uhlele izinto**	Kwazi ukuqokelela, ukuhlela, ukuzoba, ukufunda, nokubonisa izinto ngokophawu olunye.
	5.2 Bonisa ingqokelela yezinto ezihleliweyo	
	5.3 Xoxa uze unukezele ingxelo ngengqokelela yezinto ezihleliweyo	

ISAHLUKO 4: UHLOLO

4.1 INTSHAYELELO

UkuHlola yinkqubo eqhubekayo yokufunda ecwangcisiweyo yokuchonga, ukuqokelela nokutolika ulwazi malunga nendlela abaqhuba ngayo abafundi, usebenzisa iindlela ezahlukeneyo zokuHlola. Oku kubandakanya amanyathelo amane:

- Ukuqokelela ubungqina bokusebenza komfundi
- ukuphononongа obu bungqina
- ukurekhoda okufunyanisiweyo noku
- sebenzisa olo lwazi ukuqondisisa nokuncedisa uphuhliso lwabafundi ukuphuhlisa ukufunda nokufundisa.

UkuHlola kufanela kusekwe kokungekho sikweni (ukuHlola kokufunda nokuseSikweni (ukuHlola kokufunda). Kwiimeko zombini kunikwa ingxelo ekufanele abafundi bayazi ngokufunda kwabo.

Kwinqanaba elisisiseko, obona buchule bungundoqo kuHlolo oluseSikweni nolungekho seSikweni kukujongwa baqatshelwe ngutitshala, iingxoxo zomlomo, imiboniso eyenziwayo nokurekhodisha ephepheni. UkuHlola kwiBanga labaqalayo malwenziwe ngNgomlomo nezenziwayo.

4.2 UKUHLOLA OKUNGEKHO SESIKWENI OKANYE KWEMIHLA NGEMIHLA

UkuHlola kokufunda kunenjongo yokuthi gqolo ukuqokelela ulwazi malunga nokusebenza komfundi . Oku kubizwa ngokuba kukuHlola okungekho seSikweni. Oku kukubeka esweni rhoqo kwenkqubo yomfundi. Oku kwenziwa ngokubonisa, ngokuxoxa, ngokwenza imisebenzi yeprekthikhali, imiboniso,ukusebenzisana okungekho seSikweni eklasini, njalo njalo. Makungabonwa oku njengokwahlukileyo koko kwaseklasini. UkuHlola okungekho seSikweni kunceda ukuba utitshala abeke esweni inkqubo yomfundi nokwenza izigqibo ezisekelwe kokufunyaniswe yonke imihla. UkuHlola okungekho seSikweni kusetyenziswa uku:

- Ukunika ingxelo kubafundi
- Ukuncedisa kwisicwangciso sokufundisa.

Ngamanye amaxesha utitshala unokugcina itshekhilisti okanye asebenzise uludwe lwenkqubo yokukhangela njengendlela yokurekhoda inkqubo yabafundi. Ngamanye amaxesha abafundi okanye ootitshala banokumakisha le misebenzi yokuHlola. Noko kunjalo, ukuHlola okungekho seSikweni aluyiyo inxalenye yokurekhodishwa njengoHlolo oluseSikweni. Iziphumo zemisebenzi yokuHlola zemihla ngemihla azithathelwa ngqalelo ekunyuselweni nasekukhutshelweni isatifikethi.

4.3 UKUHLOLA OKUSESIKWENI

Yonke imisebenzi yokuHlola iyinxalenye yenkqubo eseSikweni yokuHlola yonyaka kwaye ithatyathwa njengokuHlola okuSeSikweni. Imisebenzi yokuHlola okuseSikweni iyamakishwa ize irekhodishwe ngokuseSikweni ngutitshala elungiselela ukuqhubela phambili nokukhutshwa kwesatifikethi. Imisebenzi yokuHlola okuseSikweni iyinxalenye yeNkqubo yokuHlola yonyaka eseSikweni kwiBanga ngalinye nakwisifundo ngasinye.

Utitshala unokujonga abafundi abali-10 ngexesha, ngoko imisebenzi yokuHlola okuseSikweni yenziwa ngokukodwa kwumatyeli ogxininiso emaqeleni amancinane, yaye kuthabatha iintsuku ezimbalwa ukuHlola iklasi yonke. Zonke izixhobo abaqhele ukuzisebenzisa abafundi, mazibe khona njengesiqhelo (izixhobo zokubala, iitshati zamanani njalo njalo).

Iindlela zokuHlola ezisetyenziswayo mazibe kwizinga neminyaka efanelekileyo, zibe nokukhulisa kubafundi. UkuHlola okuseSikweni makulungiselele onke amanqanaba anengqiqo nabanako ukukwenza abafundi. Indlela eyilwe ngayo le misebenzi ma iquke umxholo wesifundo ngeendlela ezahlukeneyo.

Iindlela ezahlukeneyo zokuHlola (ukukhangela, Ngomlomo, ezenziwayo nezibhalwayo) mazisetyenziswe ukunika umfundi ngamnye ithuba lokubonisa akwaziyo ukukwenza. Oku kwenziwa kuba abanye abafundi babonisa abakwaziyo ukukwenza ngohlobo oluthile lwendlela yokuHlola. Umzekelo,

- Abanye abafundi abafumana kunzima ukufunda, benza kakuhle kwiMathematika.
- Abanye abafundi Bangangabikho kwizinga elamkelekileyo kulwimi lokufunda nokufundisa.

Imisebenzi yokuHlola kwiMathematiki mayibandakanye imisebenzi engaxhomekekanga kulwimi, engaxhomekekanga kukwazi ukufunda, ukubonisa eyona nto banako ukuyenza abafundi.

Noko kunjalo, mayiqondakale eyona nto eHlolwayo. Ulwazi nezakhono ezithile ziHlolwa ngokukuko ngeendlela ezithile zokuHlola. Iintlobo ezahlukeneyo zokuHlola zilungele izakhono neengqiqo ezidingekayo kwiintlobo ngeentlobo zezihloko ngokweminyaka yabafundi. Kuluncedo ukusebenzisa itshekhlisti yokukhangela ukuHlola abafundi besenza imilinganiso kumaBanga abaqalayo. IiRubhriki zingasetyenziswa ukuvavanya izakhono zabafundi zokusombulula iingxaki.

4.4 INKQUBO YOKUHLOLA OKUSESIKWENI

Imisebenzi yokuHlola okuseSikweni yeMathematiki ibandakanya ngaphezu kwesihloko esinye kwiMathematiki. Imisebenzi yokuHlola ngonyaka kufuneka iquke zonke iinkalo zomxholo nezihloko, kodwa asiyiyo yonke into kwiimfuno zekharityhulam ema ihlolwe kwenziwe ingxelo ngayo ngokuseSikweni. Amanani, ukusebenza nolwalamano kwenza ipesenti engama- 60% yeMathematiki kwiBanga labaqalayo . Le nto ithetha ukuthi ipesenti engama - 60% yokuHlola okuseSikweni iKota nganye ngonyaka ma igxininise kumanani, imisebenzi nolwalamano.

Umsebenzi wokuHlola okuseSikweni ma ungabonwa njengesiganeko esinye okanye uvavanyo olunye. Eminye imilinganiso yokuHlola ingasetyenziswa ngexesha elinye, kodwa eminye ingaHlolwa ngamaxesha ohlukeneyo. Umzekelo, ukuba isakhono sokubala ngokuqakatha siyaHlolwa , ukukwazi ukwenza oku kulandelayo kungaHlolwa kuwo lo msebenzi umnye:

- Ukugqibezela ukubala ngokulandelelanisa
- Ukufunda nokubhala iisimboli zamanani
- Ukubala

Nangona kunjalo, ukuba umsebenzi wokuHlola uquka ukusombulula izibalo zamanani zamazwi ngokwenza amaqela okanye ukwahlula ngokulinganayo, nokuHlola abantwana ukukwazi ukwenza umlinganiselo womthamo; Kungenzeka ukuba le miba yeMathematiki iHlolwe ngamaxesha angafaniyo nangeendlela ezahlukeneyo.

4.5 UKUREKHODISHA NOKUNIKA INGXELO NGOMSEBENZI)

Ukurekhoda yinkqubo apho utitshala abhala phantsi izinga lokusebenza lomfundi ngamnye kumsebenzi othile ohlolwayo. Kubonisa inkqubela-phambili yomfundi ekuzixhobiseni ngolwazi oluxeliweyo ngokweeNkcazelo zePolisi yeKharityhulam nokuHlola. Iirekhodi zomsebenzi womfundi kufanele zinike ubungqina ngenkqubela-phambili yomfundi ngokweBanga kunye nokulungela kwakhe ukuqhubela phambili xa epasile ukuya kwiBanga elilandelayo.

Iirekhodi zomsebenzi womfundi kufanele zisetyenziswe ukungqinisisa inkqubela-phambili eyenziwe ngootitshala nabafundi kwinkqubo yokufundisa nokufunda.

Ukukhupha iripoti okanye ingxelo yinkqubo yokwazisa abafundi, abazali babo, isikolo nabanye abathathi-nxaxheba malunga nendlela asebenza ngayo umfundi ezifundweni zakhe gabalala. Zininzi iindlela ezisetyenziswayo ukunika iripoti okanye ingxelo ngomsebenzi womfundi. Ziquka amakhadi eripoti okanye engxelo, ukubiza iintlanganiso nabazali, iintsuku zokutyelela esikolweni, iinkomfa zabazali nootitshala, ukufownela abazali, ukuthumela iileta kubazali, ukuthumela oolindixesha besikolo okanye beklasi kubazali, njalo njalo. Ootitshala kumaBanga onke banika iripoti

okanye ingxelo ngokweepesenti ngesifundo ngasinye. Amazinga ohlukeneyo okusebenza kunye neepesenti ahambelana nazo adweliswe kwiTheyibhile engasezantsi.

IIKHOWUDI NEEPESENTI ZOKUREKHODA NOKURIPOTA (NOKUNIKA INGXELO NGOMSEBENZI

KHOWUDI	INKCAZELO NGENDLELA AQHUBE NGAYO KUMSEBENZI WAKHE UMFUNDI	IPESENTI
7	Uphumelele emagqabini	80 – 100
6	Ugqwesile	70 – 79
5	Uphumelele ngokuqaqambileyo	60 – 69
4	Uphumelele ngokwanelisayo	50 – 59
3	Uphumelele ngokufanelekileyo	40 – 49
2	Uphumelele ngokuyinxalenye	30 – 39
1	Akaphumelelanga	0 - 29

4.6 ULWAZI GABALALA

Le dotyhumenti kufanele isetyenziswe nezi zilandelayo

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

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

4.7 IMIZEKELO YEETSHEKILISTI ZOHLOLO OLUSESIKWENI EZICETYISWAYO

Imizekelo yeetshekilisti zokuHlola inikiwe kwiBanga labaQalayo (R) ngezantsi: Injongo kukuncedisa ootitshala bacwangcise baze benze uHlolo oluseSikweni ngendlela eqhubekayo.

IMIZEKEKLO YEETSHEKILISTI ZEBANGA LABAQALAYO (R) IKOTA YOKU - 1				
Inkalo yomxholo	**Umxholo**	**Umlinganiselo wokuHlola**	**√ okanye x**	**Ukuphawula**
Amanani,ii-Opareyshini noLwalamano	Ukubala	Ukuqikelela aze abale ngokucengceleza ukuya kuzi- 5 (lingoma nezicengcelezo zamanani zibandakanywe ukukhulisa ingqiqo yamanani)		
	Unakano lwamanani	Ukunakana amanani kwiimeko eziqhelekileyo umzekelo: iminyaka yokuzalwa, rejista(isigama esisetyenziswa xa kufundwa amanani)		
		Ukuqonda amanani ngokulandelelana (umzekelo ngexesha lesiqhelo lokuya ngasese)		
	Ingqiqo ngamanani	Ukuqondana phakathi komnye nomnye/ukungqamanisa (Itshati yomncedisi ngexesha lesidlo)		
	Ukuchonga nokuchaza amanani apheleleyo	Ukuchonga imifanekiso yamanani namakhadi amachaphaza equka inani u-1		
		Ukwazi isimboli yenani u-1		
		Ukunakana igama lenani u-1		
	Ukusombulula izibalo zamanani zamazwi	Ukusebenzisa izixhobo eziphathekayo Ukuchaza iingcinga zakhe ngamazwi nangemizobo okanye izinto eziphathekayo		
Iipateni neFankshini	Ukukopa, wandise, uze uyile iipateni zakho	Ukuchonga iipateni kokusingqongileyo		
		Ukukopa, andise aze ayile iipateni ezizezakhe		

IMIZEKEKLO YEETSHEKILISTI ZEBANGA LABAQALAYO (R) IKOTA YOKU - 1				
Inkalo yomxholo	**Umxholo**	**Umlinganiselo wokuHlola**	**√ okanye x**	**Ukuphawula**
Isithuba nemilo	Ukunakana, achonge aze axele izinto ezinokwakheka kuka 3-D	Ukunakana, achonge aze abize iibhola		
		Ukunakana, achonge aze abize iibhokisi		
	Ukunakana, achonge aze axele izinto ezinokwakheka kuka 2-D	Ukunakana, achonge aze abize iisimboli zakhe, iisimboli zabahlobo kunye negama leklasi		
		Ukwakha ebuncinaneni iphazili emaqhekeza ma- 6		
		Ukubonisa ukukwazi ukohlula phakathi kwezinto ezifotwe zankulu ngaphambili nezo zifotwe zancinci ngemva(foreground and background)		
	Iimilo zejiyometri	Ukuchonga nokunakana isangqa		
		Ukuchonga nokunakana unxantathu		
		Ukuchonga nokunakana uxande		
	Ukuchaza, ahlele aze athelekise izinto ezinokwakheka kuka 3-D ngokwe::	Ukuthelekisa ukuba kwizinto eziqokelelweyo ezimbini, yeyiphi enkulu kunenye, encinane kunenye, enkulu kuzo zonke, eyona incinane kuzo zonke		
		Ukuhlela izinto ngokobungakanani – enkulu nencinane		
		Umbala – Imibala engundoqo (bomvu, qanda, bhlowu)		
		Imilo – isangqa, unxantathu noxande		
		Izinto eziqengqelekayo		
		Izinto ezitshebelezayo		
	Ukunakana umgca wolingano-macala:	Ukunakana umgca wolingano-macala kwisiqu sakhe		
	Ulwalamano ngok-wezithuba: Indawo-bumilo yezinto ezimbini ngokunxulumene nomfundi	Ukwazi phambi kwe-/ ngemva kwe-		
		Ukwazi phezu kwe-, phantsi kwe-		
		Ukwazi ngaphakathi, ngaphandle		
		Ukwazi phezulu, phantsi		
	Ingqiqo yokwalathisa	Ukuqonda la magama: ukuya phambili, emva, phambili nasemva		
Umlinganiselo	Ixesha	Ukusebenzisa amagama anjengo: usuku, ubusuku, ubumhlophe nobumnyama, kusasa, emalanga, ngobusuku, ukuchaza ixesha losuku		
		Ukulandelelanisa izinto ezenzekayo ngosuku (Inkqubo yosuku)		
		Ukubonisa nokwazi iintsuku zeveki, amaxesha onyaka nemozulu		
		Ukwazi iintsuku zokuzalwa zabo		
	Ubude	Ukwahlula phakathi ko: inde, inde kunenye, inde kuzo zonke, imfutshane, imfutshane kunenye, imfutshane kuzo zonke (Itshati yobude)		
Ukusebenza ngolwazi oluqokelelw-eyo	Ukuqokelela, ahlele, azobe, afunde aze abonise ulwazi	Ukukwazi ukuqokelela, ahlele, azobe, afunde aze abonise (atolike) izinto ngokophawu olunye.		

UHLELO LUKUGQIBELA:

IMIZEKELO YEETSHEKHILISTI ZEBANGA LABAQALAYO(GRADE R) IKOTA YESI- 2				
Inkalo yomxholo	**Umxholo**	**Umlinganiselo wokuHlola**	**√ okanye x**	**Ukuphawula**
Amanani,ii-Opareyshini noLwalamano	Ukubala	Qikelela aze abale ngokucengceleza ukuya ku- 5 (lingoma nezicengcelezo zamanani zibandakanywe ukukhulisa ingqiqo yamanani)		
		Bala ukubuya umva nokuya phambili (1-4)		
		Qonda amagama “ninzi no mbalwa” (uqhwaba)		
	Unakano lwamanani	Nakana amanani kwiimeko eziqhelekileyo umzekelo: inombolo yendlu, irejista yedilesi		
	Ukuchonga nokuchaza amanani apheleleyo	Chonga imifanekiso yamanani namakhadi amachaphaza		
		Zazi iisimboli zamanani 1, 2, 3, 4		
		Nakana amagama amanani - mbini, ntathu, ne		
	Ingqiqo ngamanani	Qondana phakathi komnye nomnye/ukungqamanisa (Itshati yomncedisi ngexesha lesidlo)		
		Hlula phakathi kwamagama: ngaphezu, ngaphantsi nokulingana, ninzi nezimbalwa ukuya kuzi-4		
		Nakana iintlobo zemali ezinkozo/mwangalala yoMzantsi Afrika		
	Ukusombulula izibalo zamanani zamazwi	Sebenzisa izixhobo eziphathekayo Chaza iingcinga zakhe ngamazwi nangemizobo okanye izinto eziphathekayo.		
		Sombulula izibalo zamanani zomlomo ngokudibanisa nokuthabatha ukuya ku- 4		
Iipateni neFankshini	Ukukopa, wandise, uze uyile iipateni zakho	Kopa, wandise, uze uyile iipateni zakho (izinto, iimilo nemali ezinkozo)		
Isithuba nemilo	Ukunakana, achonge aze axele izinto ezinokwakheka kuka 2-D	Yakha iphazili emaqhekeza ali -12 ubuncinane.		
		Bonisa ukukwazi ukohlula phakathi kwezinto ezifotwe zankulu ngaphambili nezo zifotwe zancinci ngemva (foreground and background) (Hlola kwakhona)		
	Iimilo zejiyometri	Nakana nokuchonga unxantathu		
		Qonda agcine ulwazi luka nxantathu (ugcino-lwazi lwemilo)		
	Ukunakana, achonge aze axele izinto ezinokwakheka kuka 3-D ngokwe:	Thelekisa ukuba kwizinto eziqokelelweyo ezimbini, yeyiphi enkulu kunenye, encinane kunenye, enkulu kuzo zonke, eyona incinane kuzo zonke		
		Hlela izinto ngokobungakanani– ende nemfutshane		
		Imibala – (bomvu, qanda, bhlowu noluhlaza)		
		Iimilo		
	Ukwakha izinto ezinokwakheka kuka 3-D esebenzisa izinto eziphathekayo	Phicotha ukwakha ngeebhloko		
	Ukunakana umgca wolingano-macala:	Ukunakana umgca wolingano-macala kwisiqu sakhe nokumngqongileyo		
	Ulwalamano ngokwezithuba	Ukuqonda indawo-bumilo yezinto ezimbini nangaphezulu ngokungqamene nomfundi Phezu kwe, phantsi kwe		

IMIZEKELO YEETSHEKHILISTI ZEBANGA LABAQALAYO(GRADE R) IKOTA YESI- 2				
Inkalo yomxholo	**Umxholo**	**Umlinganiselo wokuHlola**	**√ okanye x**	**Ukuphawula**
Umlinganiselo	Ixesha	Qonda iintsuku zeveki, amaxesha onyaka netshati yemozulu (iingoma nezicengcelezo – Hlola kwakhona)		
		Lazi usuku lwakhe lokuzalwa (Hlola kwakhona)		
	Ubude	Hlula phakathi kwe; eyona inde, eyona imfutshane, (Itshati yobude)		
Ukusebenza ngo lwazi oluqokelelweyo	Ukuqokelela, ahlele, azobe, afunde aze abonise ulwazi	Kwazi ukuqokelela, ahlele, azobe, afunde aze abonise (atolike) izinto ngokophawu olunye.		

UHLELO LUKUGQIBELA:

IMIZEKELO YEETSHEKHILISI ZEBANGA LABAQALAYO(GRADE R) IKOTA YESI - 3				
Inkalo yomxholo	**Umxholo**	**Imilinganiselo yoHlolo**	**√ okanye x**	**Amagqa-bantshintshi**
Amanani,ii-Opareyshini noLwalamano	Ukubala	Qikelela nokubala ngokucengceleza ukuya kwi - 7 (iingoma nezicengcelezo zamanani zibandakanywa ukukhulisa ingqiqo ngamanani)		
		Bala ubuya umva nokuya phambili (1 -7)		
		Ukwazi ukuba kuqhwatywa kangaphi ngaphezulu/ ngaphantsi		
	Ukunakana amanani	Nakana amanani kwiimeko eziqhelekileyo - umzekelo: iminyaka yokuzalwa, irejista (Hlola kwakhona)		
	Ukuchonga nokuchaza amanani apheleleyo	Chonga imifanekiso yamanani namakhadi amachaphaza ukuya kwinani i - 7		
		Ukwazi iisimboli zamanani 5, 6, 7		
		Nakana amagama amanani ; hlanu, ntandathu, sixhenxe		
	Ingqiqo ngamanani	Ukwahlula phakathi ko: ngaphezulu, ngaphantsi nezilingana, zininzi nezimbalwa ukuya kwi -7		
		Nakana umbala neentlobo zezilwanyana kokubhaliweyo eMzantsi Afrika		
	Ukusombulula izibalo	Sebenzisa izixhobo eziphathekayo Chaza iingcinga zakhe ngamazwi nangemizobo okanye izinto eziphathekayo		
		Ngomlomo usombulula izibalo ukuya kwi-7 ngokudibanisa nokuthabatha		
Iipateni neFankshini	Ukukopa, wandise aze ayile iipateni zakhe	Kopa, andise aze ayile iipateni zakhe esebenzisa imifanekiso		

Isithuba nemilo (Ijiyometri)	Nakana, achonge aze axele iimilo/ imifanekiso enokwakheka kuka 2-D	Yakha iphazili enezicwili/izijungqe ezili- 18 ubuncinane		
	Iimilo zejiyometri	Nakana, achonge aze axele uxande		
		Qonda ugcino- milo olufundiweyo (shape conservation)		
	Ukwakha izinto ezinokwakheka kuka 3-D esebenzisa izixhobo eziphathekayo	Yakhela kumzekelo wokwakha onikiweyo		
		Kopa isakhiwo kuyilo nekhadi lomfanekiso		
	Uzalwano lwesithuba	yazi imeko -bume yezinto ezimbini nangaphezulu ngokuzalana kwazo Phambi kwe-, emva kwe-, ngaphezu kwe-, phantsi kwe-,ezantsi kwe-, kufuphi ne-,ecaleni kwe-, phakathi, ekhohlo nasekunene		
		UYenza ngokwemiyalelo kwi phegi-bhodi		
	Ingqiqo yokwalathisa	Yazi izalathiso kwitshati yokukhomba		
Umlinganiselo	Ubude	Qikelela nokwenza umlinganiselo kubude bezinto ezahlukeneyo		
	Ubunzima	Qonda amagama anjengo: “ububulula, ubunzima, ilula kunenye, inzima kunenye, eyona ilula kuzo zonke, eyona inzima kuzo zonke”		
	Umthamo	Landela amagama ajengo: ize, izele, ngaphezu kwe-, ngaphantsi kwe-		
Ukusebenza ngolwazi oluqokelelweyo	Ukuqokelela, ahlele, azobe, afunde aze abonise ulwazi	Kwazi ukuqokelela, ahlele, azobe, afunde aze atolike izinto ngokophawu olunye		

UHLELO LOKUGQIBELA

IMIZEKELO YEETSHEKHILISI ZEBANGA LABAQALAYO (GRADE R) IKOTA YESI - 4				
Inkalo yomxholo	**Umxholo**	**Imilinganiselo yoHlolo**	**√ okanye x**	**Amagqa-bantshintshi**
Amanani,Ii-opareyshini noLwalamano	Ukubala	Qikelela nokubala ngokucengceleza ukuya kuzi - 10 (iingoma nezicengcelezo zamanani zibandakanywa ukukhulisa ingqiqo ngamanani)		
		Bala ukuya emva nokuya phambili (0 -10)		
		Bala ngezi- 2 (Iingoma nezicengcelezo zamanani)		
		Qonda amagama anjengo: “ninzi no mbalwa” (ngokuqhwaba)		
		Qonda ukuba uqhwabe kangaphi ngaphezu/ ngaphantsi, elona lininzi/ elona lincinane		
		Chonga umfanekiso wenani kunye namakhadi anamachaphaza ukusuka kwi-0 ukuya kwi-10		
		Zazi iisimboli zala manani 8,9,10 ne-0 kwaye:		
		Anakane amagama ala manani- isibhozo, isithoba, ishumi neqanda		
		Gqibezela ulandelelwano lwamanani alula ukusuka kwinani u-1 ukuya kwi-10		
	Ukunakana amanani	Nakana aze achonge amanani kwiimeko eziqhelekileyo - umzekelo iminyaka yokuzalwa, irejista yamanani		
	Ukuchonga nokuchaza amanani apheleleyo	Chonga imifanekiso yamanani namakhadi amachaphaza ukusuka 0 – 10		
		Zazi iisimboli zamanani 8, 9, 10		
		Nakana amagama amanani - isibhozo, ithoba neshumi kunye ne – 0		
		Gqibezela ulandelelwano olulula lwamanani ukusuka ku 1-10		
	Ingqiqo ngamanani	Hlula phakathi ko: ngaphezulu, ngaphantsi, ilingana, ezona zininzi nezona zimbalwa ukuya kwi nani i-10		
		Qonda amanani alandelelanayo - eyokuqala, eyesibini, eyesithathu, eyesine, eyesihlanu neyesithandathu		
	Ukusombulula izibalo	Sebenzisa izixhobo eziphathekayo Chaza iingcinga zakhe ngamazwi nangemizobo okanye izinto eziphathekayo		
		Ngomlomo usombulula izibalo zamanani ngokudibanisa nokuthabatha amanani ukuya kwi – 10		
IiPateni neFankshini	Ukukopa, wandise aze ayile iipateni zakhe	Kopa, andise aze ayile iipateni ezimanyelweyo zakhe		
		Qonda umdlalo “ uSkhotshi/ uGuni / uNochelesi / uNochelu”		
Isithuba nemilo (ijiyometri)	Ukunakana, achonge aze axele iimilo ezinokwakheka kuka 2-D	Kwazi ukwakha iphazili emaqhekeza engama- 24 ubuncinane		
	Iimilo zejiyometri	Nakana aze achonge isangqa, unxantathu, uxande nesikwere		
	Ukunakana umgca wolingano-macala	Nakana umgca wolingano-macala kwizinto		
	Uzalwano lwesithuba	Yazi amagama anjengo: kufuphi ne-, phakathi, embindini, ekhohlo nasekunene		
		Kwazi ukwenza umsebenzi wephegi-bhodi ophambili		
	Ingqiqo yokwalathisa	Qonda amagama anjengo: phambili nasemva, phezulu naphantsi, entla nasezantsi, ekhohlo nasekunene		

Umlinganiselo	Ubude	Qonda ukuba izinto ziyalinganiswa nangokusebenzisa itheyiphu yokulinganisa		
Ukusebenza ngolwazi oluqokelelweyo	Ukuqokelela, ahlele, azobe, afunde aze abonise ulwazi	Kwazi ukuqokelela, ahlele, azobe, afunde aze atolike izinto ngokophawu olunye		

UHLELO LOKUGQIBELA