Foundations For Learning

Foundation Phase Numeracy Lesson plans

Second term

Grade 1

Kindly send any response that you may have to:
Dr Jennifer J Joshua
E-mail: joshua.j@doe.gov.za

Department of Education
Sol Plaatje House
123 Schoeman Street
Pretoria
South Africa

Private Bag X895
Pretoria
0001

Tel: +27 12 312 6220
Fax: +27 12 312 6222
www.education.gov.za

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Design and layout: Shereno (012) 344 2817

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SECOND TERM OVERVIEW

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Counting	Whole Class : Daily rote counting, gradually increasing the number to 100									
	Rational counting to 50, using number line, number grid, counters, etc. asking questions such as: What comes before? What comes after? What comes between?						Rational counting starting at a given number and ending at a given number in the number range 1 to 50.			
	Introduce counting in 2s from 1 to 10 using body parts			Counting in 2s from 1 to 20 using counters, objects, abacus, etc.						
	Individual counting out objects, gradually increasing the number of objects to 25									

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10
Concept Development and Number Sense	Patterns and sequencing using drawings, shapes, objects and numbers.									
	Develop vocabulary for the basic concepts being dealt with each week									
		Odd and even numbers						Odd and even numbers		Odd and even numbers
	Knows, reads and writes number name and symbol for 1 to 6	Knows, reads and writes number name and symbol for 7	Knows, reads and writes number name and symbol for 8	Knows, reads and writes number name and symbol for 9	Knows, reads and writes number name and symbol for 10	Revision of numbers 1 to 10 The relationship of numbers 1 to 10				
					Orders number 1st to 10th					
	Revision of signs +, -, =		Number sentences developed during group teaching		Written work using the signs +, - and = Completing number sentences.					
					Numerosity of numbers 1 to 10					
								Double and halve numbers 1 to 10		
	Height and length	Identifies 3-D objects	Properties of 2-D shapes and 3-D objects		Capacity		Collects data			
	Problem solving. Work with 3 ability groups at their own level. 4 different word problem types done every week during group teaching time.									

THE ASSESSMENT FRAMEWORK

	ACTIVITIES THAT WILL BE USED FOR ASSESSMENT		
	COUNTING	CONCEPT DEVELOPMENT	PROBLEM SOLVING
WEEK 1			
WEEK 2			
WEEK 3			
WEEK 4	Oral and practical daily activities. Practical activity counting out objects during group teaching.	Practical and recorded activities dealing with patterns and sequencing.	Oral and practical activities dealing with the properties of 2-D shapes and 3-D objects.
ASSESSMENT TASK 1 COMPLETED			
WEEK 5			
WEEK 6			
WEEK 7	Practical activity counting objects in 2s	Oral activities dealing with understanding numbers and number names and the relationship of numbers. Written activity dealing with ordering. Written activities dealing with addition and subtraction in number sentences.	Practical activities dealing with capacity. Practical activities leading to collecting and displaying data.
ASSESSMENT TASK 2 COMPLETED			
WEEK 8			
WEEK 9		Oral and written activity dealing with the numerosity of numbers 1 to 10. Written activity dealing with addition and subtraction on single digit numbers. Practical activity about doubling and halving.	Problem solving activities, including explaining solutions , during Group teaching.
ASSESSMENT TASK 3 COMPLETED			
WEEK 1O			

The criteria for the assessment are drawn from the Learning Outcomes, the Assessment Standards and the Milestones

SECOND TERM: WEEK 1 OVERVIEW

<table>
<tr><th>COMPONENT</th><th>MILESTONES</th><th>DAY 1</th><th>DAY 2</th><th>DAY 3</th><th>DAY 4</th><th>DAY 5</th></tr>
<tr><td>COUNTING

LO 1 AS 1,2</td><td>• Says the number names from 1 to 50 in sequence (rote counting)
• Counts out objects to 10
• Counts to 20 reliably e,g, indicates objects such as counters</td><td colspan="5">Daily:
• Rote count to at least 50
• Count in 1s up to 30 while pointing on a number line/ number grid or count using an abacus
• Count out concrete objects to 10
• Ask questions e.g. what number is more/less than?</td></tr>
<tr><td rowspan="3">NUMBER SENSE AND MENTAL

LO1 AS 3,4,7
LO 2 AS 1
LO 3 AS 1
LO4 AS 5</td><td rowspan="3">• Vocabulary
• More and less; before and after
• Writes and reads number symbols from 1-20
• Writes and reads number names from 1-10
• Estimates up to 10 objects
• Completes simple patterns using physical objects and drawings
• Number patterns: Sequencing numbers 1-10 using a variety of activities
• Follows directions to place one 3-D object in relation to another.</td><td colspan="5">Daily:
• Revision of numbers 1 to 6
• Revision of ordinal value 1st to 6th
• Sequencing shape, colour, size, numbers</td></tr>
<tr><td>DAY 1</td><td>DAY 2</td><td>DAY 3</td><td>DAY 4</td><td>DAY 5</td></tr>
<tr><td>Patterns

Revision of numbers 1-6</td><td>Patterns

Revision of numbers 1-6</td><td>Patterns

Revision of numbers 1-6</td><td>Patterns

Revision of numbers 1-6</td><td rowspan="2">WHOLE CLASS ACTIVITY

Game: exploring patterns through space and shape</td></tr>
<tr><td>GROUP TEACHING

LO 1 AS6,7,11</td><td>• Recognises addition, subtraction and equals signs (+, -, =) in a problem solving context
• Revision of the value of numbers 1-6
• Performs calculations: addition and subtraction from 1 to 10
• Solves all types of problems, and explains solutions, using concrete objects and drawings using numbers to 10</td><td colspan="4">Ask each group the same problems. They can be solved using counters, drawings, etc.
Number range: Group 1 works in 1-20; Group 2 works in 1-10; Group 3 works in 1-10</td></tr>
<tr><td>Group 1 and 3 work with teacher, one group at a time. .
Ask one type 1 and one type 2 word problem.
Group 2 works on its own</td><td>Groups 2 and 3 work with teacher, one group at a time. .
Ask one type 1 and one type 2 word problem.
Group 1 works on its own</td><td>Groups 1 and 3 work with teacher, one group at a time.
Ask one type 21 and one type 36 word problem.
Group 2 works on its own</td><td>Groups 2 and 3 work with teacher, one group at a time. .
Ask one type 21 and one type 36 word problem.
Group 1 works on its own</td></tr>
</table>

WEEK 1 : WHOLE CLASS

WEEK 1	WHOLE CLASS COMPONENT (Counting and Mental/Number sense)

Notes to the teacher:

- Counting at the beginning of the day helps learners focus on numbers. Every day you will let your learners do rote counting (to develop the vocabulary of numbers) as well as rational counting (thinking what they are doing) activities. Counting at the beginning of the lesson is done with the whole class every day.
- By now you would have made sufficient resources that would assist you with these activities. Initially learners require 'crutches' to help them complete activities.
- Delegate duties to responsible learners to help you hand out resources like counters, puzzles etc. to the learners.
- Daily activities indicate activities that should be done every day. The specific concepts being developed are indicated every day e.g. Day 1.
- Marking the register and talking about the Weather chart and Birthday chart are daily activities involving incidental learning and are usually part of the Literacy Oral component. They are placed here as Numeracy concepts are also being dealt with.

DAILY ACTIVITIES

COUNTING AND MENTAL/NUMBER SENSE

Daily Activities.(to take no more than 10 minutes)

These must be done daily:

- Learners rote count to at least 50 and further if they can. This should be fun for the learners so make sure you use a variety of strategies when doing rote counting.
- Point to the numbers on a number line or a number grid as learners count to 50. At the same time let a learner push the same number of beads across on the abacus.
  Tip*: The learner could use the teacher's abacus if one is available.*

Choose from the following to make up the 10 minutes

- Learners close their eyes and listen to the number of taps/claps/stamps/clicks etc. that they hear. They hold up the corresponding number of fingers E.g. stamp your foot six times – learners hold up 6 fingers and say 6.
- Point to any number on the number line and ask questions such as: *What number is more than this number? What number is less than this number? What number is 1 more than this number? What number is 1 less than this number? Which numbers comes before this number? Which number comes after this number? This number is between which two numbers?*
- Revise the number rhyme taught during the first term.
- Mark the register, complete the weather chart and birthday chart every day, using the time to develop basic concepts e.g. colour, sequencing days and months, ordering, etc.

DAY 1 (to take no more than 30 minutes)

- Make flashcards with numbers 1-6 written on them. Flash these to the learners to reinforce number recognition.
  Tip: *Learners can be seated on the mat for this activity.*

- Get 6 volunteers to hold a card with a number. Have a number line prepared with 0 as the starting point but leave out the rest on the numbers. Get the learners to place the numbers correctly on the number line from smallest to biggest e.g. the learner with number 1 would go and place the card in the correct position.
- Get a few volunteers in front. Get learners to stand in a row. Ask the first learner to raise his/her hands, the second learner to keep their hands down and the third learner to raise their hands thus creating a pattern. Ask learners to see if they can identify a pattern. Other examples that could be used are as follows: boy, girl, boy, girl; girls with long and short hair; learners can hold objects e.g. the first learner can hold a pencil, the second learner can hold a ruler, the third learner a pencil. Ask the learners to see if they can continue the pattern.
-

DAY 2 (to take no more than 30 minutes)

- Give each group of learners 6 pieces of paper. Get them to write down numbers 1-6 one number on each piece of paper. Learners then work as a group and place the numbers in the correct order from smallest to biggest on their desks/tables. Get the learners to mix up the pieces and give each learner a turn to rearrange the numbers correctly. Other learners can assist or assess if it is being done correctly. Walk around and observe whether the learners are able to recognize the numbers as well as be able to put them in the correct sequence.
- Get some objects that could be used for making patterns e.g. bean bags, tennis balls, school bags, pencils, rulers, toys, things from the nature corner. Use these objects to create patterns e.g. bean bag, tennis ball, bean bag, tennis ball or black school bags and brown school bags or boys school bags and girls school bags.

DAY 3 (to take no more than 30 minutes)

- Hand out counters to groups of learners and 6 pieces of paper. Learners must work together and place the counters in groups on the table e.g. 1 counter, 2 counters, 3 counters and so on until they have a group of 6 counters. They then write the numbers 1-6 on each piece of paper. They then place the correct number under each set of counters e.g. number 4 will be placed under the group of 4 counters.
- Get a group of learners to stand out in front of the class. Arrange them to get the following pattern – one tall learner and one short learner. Get the other learners to identify the pattern.
- Next get the learners to make the following pattern – one learner stands and the next one sits and so on. Get the rest of the learners to identify the pattern.
- Learners use cut-outs of the basic shapes to create patterns e.g. triangle, circle, triangle, circle or square, triangle, circle, square, triangle, circle and so on. Encourage learners to be creative and find as many different sequences as possible.

DAY 4 (to take no more than 30 minutes)

- Have picture cards (from 1-6) placed on the chalkboard e.g. first place a card with five pictures, then a card with three pictures and so on. Place them randomly. Learners take turns to rearrange them in the correct order.

- Use the same picture cards and place them on the board once again. Give a few learners the number cards that you had made for the previous lesson. Get them to use these cards to match them with the correct picture card.
- Use the number cards to reinforce number recognition. Flashcards with number names one to six can also be made. Learners can read these words and become familiar with them and thus prepare the learners for future lessons.
- Hand out shapes to the learners and get them to create different patterns on their tables. They can also create patterns according to colour and size.

DAY 5 (whole lesson)

- Take the learners outside to play a game 'The giant and the mouse. Tell all the learners to stand in a circle. Then every alternate learner must sit so that now there is one learner standing and one sitting. The learners that are standing are the giants and those that are sitting are the mice. Give a ball to one learner that is standing and a bean bag to the learner that is sitting next to learner that has the ball. The learner with the ball will have to pass the ball to the next learner that is standing and so on. The learner with the bean bag would have to pass the bean bag to the next learner that is sitting. No learner must be left out. This is a competition to see who is going to win. Usually the giants win because it is easier to throw the ball to those that are standing. Those that are sitting cannot move quickly. So the next time that game is played the giants can be the mice.

ASSESSMENT	**Formal :** No formal, recorded Assessment **Informal:** Unrecorded assessment of learners oral responses and ability to participate.

WEEK 1 : GROUP TEACHING

Week 1	GROUP TEACHING COMPONENT (Concept Development and Problem Solving)

Notes to teacher:

- By now you have established 3 groups. Every day you will work with 2 different groups in a small group situation e.g. sitting on the mat together. During this time you will do activities to develop number concepts at the level of the learners in the group. A number of types of activities are provided and you should do ALL the types each time you work with that group; but remember, although examples are provided, you should look for your own examples that will suit your learners. You will also give the learners at least 2 different word problems to solve every time you work with them. **It is through solving problems and discussing the solutions that learners develop a sense of number, an understanding of the operations and the ability to reflect on their thinking.**
- While you are working with a group, the rest of the class will be working independently. You need to provide them with a variety of activities which reinforce and consolidate concepts already learnt. Try to vary the activities e.g. giving a practical activity (counting counters in counting bags), a written activity (filling in numbers, sequencing, etc.) and a fun activity (dot-to-dot pictures, puzzles, etc.)
- ***NB: If you find your learners are not yet ready for formal notation, delay introducing it until they have developed a good understanding of the mathematical concepts. Formal notation is only introduced when learners look for a quicker way to communicate their thoughts rather than through drawings.***

DAILY ACTIVITIES

Examples of activities to be done independently. *Work from a Learner's Book, worksheets, work cards, work charts etc.*

- Write the numbers 1 to 6 in their books, drawing the correct number of pictures next to each number and writing the correct word.
- Complete a sequencing activity e.g. fill in the missing numbers on a number line, dot-to-dot etc.
- Fill in numbers on a number line or number square.
- Give the learners number cards 1 to 6. They arrange them from smallest to biggest then copy the numbers into their books.
- Provide cards with a different number of pictures on each card. Learners count the number of pictures, then write the number in their books and draw the pictures.
- Provide worksheets where learners have to match the objects on one side with the objects on the other (one-to-one correspondence).
- Make work cards, or write on the board, draw 1 more and write the number

	Draw 1 more	Write the number
☺ ☺ ☺		4
♦ ♦		
♥ ♥ ♥ ♥ ♥		
✉ ✉ ✉ ✉		
★		

Working with the group

GROUP 1

*On **Monday** and **Wednesday** this group works with the teacher for 20 minutes*.

- Put up to 6 objects in the middle of the group. Let the learners look at the objects then cover them. Ask learners to estimate how many objects there are. Give each learner a chance to say how many s/he thinks there are. Uncover the objects and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
  ***Tip:** If possible, let the learners write down the number they estimate. This prevents them from changing their estimate once the counters have been counted. There is no right or wrong estimate.*
- Give out counters to the learners. Have a chart prepared with a few number sentences (addition and subtraction). Work with number sentences up to 10. Get the learners to read the first number sentence. Check if they can recognize the sign and know the correct name of the sign. Learners must then put out the counters for the number sentence. For example, you have written 4+2=……. so learners will put out 4 counters and 2 counters. Ask them to look at the sign as the sign tells us what to do. Ask the learners what to do as some learners already have knowledge of adding and subtracting. Do as many number sentences as time permits.
  ***Tip:** This is practical work as you are preparing the learners to do this work on their own. Learners must understand what they are doing and gain enough confidence to be able to complete written work successfully.*
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 20. Once all the learners have solved the problem, give each learner a turn to tell the group how s/he solved the problem. Encourage the learners to write a number sentence for the addition and subtraction word problems if they are able to. Ask what the signs +, -, = mean. On Monday the word problems will be one type 1 and one type 2 and on Wednesday you will ask one type 21 and one type 36 problem. These can be found in the Annexures for Term 1.
  ***Tip:** Make sure the learners understand that the = sign does not mean **the answer,** but means that what is on each side of the sign means the same e.g. 6 = 2+4 or 5+1=2+4.*

GROUP 2

*On **Tuesday** and **Thursday** this group works with the teacher for 20 minutes*.

- Put up to 6 objects in the middle of the group. Let the learners look at the objects then cover them. Ask learners to estimate how many objects there are. Give each learner a chance to say how many s/he thinks there are. Encourage them to place a counter on the number on their number line. Uncover the objects and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Give out counters to the learners. Have a chart prepared with a few number sentences (addition and subtraction). Work with number sentences up to 6. Get the learners to read the first number sentence. Check if they can recognize the sign and know the correct name

of the sign. Ask someone to tell you a story about the number sentence i.e. to put the numbers into context using words. Learners must then put out the counters for the number sentence. For example, you have written 4+2=……. so learners will put out 4 counters and 2 counters. Ask the learners what to do as some learners will have developed their own understanding of adding and subtracting through the word problems they have been exposed to. Do two more number sentences.

Tip: *This is practical work as you are preparing the learners to do this work on their own. Learners must understand what they are doing and gain enough confidence to be able to complete written work successfully.*

- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 10. Let each learner tell the group how s/he solved the problem. After learners have told you how they worked out the answer, ask them if they can write the number sentence for the problem. Ask what the signs +, -, = mean. If they are not able to write the number sentence yet, do not force them to. On Tuesday the word problems will be one type 1 and one type 2 and on Thursday you will ask one type 21 and one type 36 problem. These can be found in the Annexures for Term 1.

  Tip*: Make sure the learners understand that the = sign does not mean* ***the answer,*** *but means that what is on each side of the sign means the same e.g. 6 = 2+4 or 5+1=2+4.*

GROUP 3

This group works with the teacher ***every day*** *for 20 minutes.*

- Put up to 6 objects in the middle of the group. Let the learners look at the objects then cover them. Ask learners to estimate how many objects there are. Give each learner a chance to say how many s/he thinks there are. Uncover the objects and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Make flash cards with the signs on them e.g. +, □ and =. Get the learners to say the names of the signs and see if they can recognize the signs. Give the learners some counters. Tell them to put out e.g. 3 and 2, then put them together and see how many you have. With the learners' help, write the number sentence 3+2=5 and 5=3+2. Do a few more examples and observe the learners. Let them become comfortable working with the counters as these learners require a lot of support and direction from you.

  Tip*: It is very important that you do not introduce the notation until learners are quite ready for it. This group will need more time than the other groups to build up their own understanding of the mathematical concepts of addition and subtraction, which occurs when they solve problems. Word problems provide the context, and this is essential if understanding is to be developed.*
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 10. Let each learner tell the group how s/he solved the problem. On Monday and Tuesday the word problems will be one type 1 and one type 2 and on Wednesday and Thursday you will ask one type 21 and

one 36 problem. These can be found in the Annexures for Term 1. It is very important that learners express their thoughts in words – that they are able to say how they thought in order to find a solution to the problem.	
Assessment	**Formal :** No formal, recorded Assessment **Informal :** Unrecorded assessment of learners oral responses and ability to participate

SECOND TERM: WEEK 2 OVERVIEW

<table>
<tr><th>COMPONENT</th><th>MILESTONES</th><th>DAY 1</th><th>DAY 2</th><th>DAY 3</th><th>DAY 4</th><th>DAY 5</th></tr>
<tr><td>COUNTING

LO 1 AS 1,2</td><td>• Says the number names in sequence (rote counting)
• Counts out objects to 10
• Counts to 40 on the number line
• Counts in multiples of 2 using concrete objects</td><td colspan="5">Daily:
• Rote count to at least 50
• Count in 1s up to 40 while pointing on a number line/ number grid or count using an abacus.
• Count forwards and backwards up to 40
• Ask questions like which number is before __; after _____; between _____ and _____.
• Count in 2s from 1-10 Count body parts e.g. 2 eyes</td></tr>
<tr><td rowspan="3">NUMBER SENSE AND MENTAL

LO1 AS 3,4,7
LO 2 AS 1
LO 3 AS 1</td><td rowspan="3">• Identifies concept odd and even
• Writes and reads number symbols from 1-20
• Writes and reads number names from 1-10
• Says which of two given collections is bigger (more) or smaller (less).
• Orders more than two given collections of objects from smaller to bigger.
• Number patterns: Sequencing numbers 1-10
• Recognises addition, subtraction and equals signs (+, -, =) in the context of solving problems</td><td colspan="5">Daily:
• Revision of numbers 1 to 6
• Revision of ordinal value 1st to 6th
• Numbers and number names up to 6</td></tr>
<tr><td>DAY 1</td><td>DAY 2</td><td>DAY 3</td><td>DAY 4</td><td>DAY 5</td></tr>
<tr><td>Patterns objects

Introduce 7</td><td>Identifies 3-D shapes

Knows reads and writes number names and symbol for 7</td><td>Patterns drawings

Knows reads and writes number names and symbol for 7</td><td>Patterns numbers

Knows reads and writes number names and symbol for 7</td><td rowspan="3">WHOLE CLASS ACTIVITY

Identifies 3-D shapes</td></tr>
<tr><td>GROUP TEACHING

LO 1 AS3,7, 9, 11</td><td>• Estimates up to 10 objects
• Solves all types of problems, and explains solutions, using concrete objects and drawings using numbers to 10</td><td colspan="4">Ask each group the same problems. They can be solved using counters, drawings, etc.
Number range: Group 1 works in 1-34; Group 2 works in 1-20; Group 3 works in 1-10</td></tr>
<tr><td>Group 1 and 3 work with teacher, one group at a time. .
Ask one type 7 and one type 8 word problem.
Group 2 works on its own</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one type 7 and one type 8 word problem.
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Group 2 works on its own</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one type 21 and one type 36 word problem.
Group 1 works on its own</td></tr>
</table>

WEEK 2 : WHOLE CLASS

WEEK 2	WHOLE CLASS COMPONENT (Counting and Mental/Number sense)

Notes to the teacher:

- Counting at the beginning of the day helps learners develop a sense of number. Every day you will let your learners do rote counting (to develop the vocabulary of numbers) as well as rational counting (thinking what they are doing) activities. Counting at the beginning of the lesson is done with the whole class every day.
- By now you would have made sufficient resources that would assist you with these activities. Initially learners require 'crutches' to help them complete activities.
- Delegate duties to responsible learners to help you hand out resources like counters, puzzles etc. to the learners.
- Daily activities indicate activities that should be done every day. The specific concepts being developed are indicated every day e.g. Day 1.
- Marking the register and talking about the Weather chart and Birthday chart are daily activities involving incidental learning.

DAILY ACTIVITIES

COUNTING AND MENTAL/NUMBER SENSE

Daily Activities.(to take no more than 10 minutes)

These must be done daily:

- Learners rote count to at least 50 and further if they can. This should be fun for the learners so make sure you use a variety of strategies when doing rote counting.
- Point to the numbers on a number line or a number grid as learners count to 40. At the same time let a learner push the same number of beads across on the abacus.
- Count backwards from 40-1

Tip: *The learner could use the teacher's abacus if one is available.*

Choose from the following to make up the 10 minutes:

- Learners close their eyes and listen to the number of taps/claps/stamps/clicks etc. that they hear. They hold up the corresponding number of fingers E.g. stamp your foot seven times – learners hold up 7 fingers and say 7.
- Point to any number on the number line and ask questions such as: *What number is more than this number? What number is less than this number? What number is 1 more than this number? What number is 1 less than this number? Which numbers comes before this number? Which number comes after this number? This number is between which two numbers?*
- Introduce learners to counting in multiples of 2. Get 3 to 4 learners to stand in front of the class. Count the eyes 2, 4, 6 etc. Count the ears, hands, legs, etc. Get more learners to join the group in front. Learners must become aware that they are adding 2 each time. Counting body parts initially is a good to way to start counting in twos.
- Mark the register, complete the weather chart and birthday chart every day, using the time to develop basic concepts e.g. colour, sequencing days and months, ordering, etc.

DAY 1 (to take no more than 30 minutes)

- Introduce number 7 to learners by showing them the number chart 7. The learners study the shape of number 7 and count the pictures. Ask learners to demonstrate how they can make

their bodies into a 7. (They could stand up and bend forwards from their waists). Encourage the class to explore the cardinal value of 7 by showing 7 fingers, clapping/clicking/stamping 7 times etc.

- Settle the learners and ask them to open their counting containers or bags and count out 7 counters.

  Tip: *Put up the number 7 chart next to the other 6 number charts.*
- This is a practical activity. Get a few volunteers to stand in a row at the front of the classroom. Give learners a 3-D object to hold e.g. tennis balls, biscuit boxes (rectangle shape), square shaped boxes and triangles made with building blocks etc. Ask learners to tell you what patterns that they would like to create. Write down the pattern on the board and then see if the learners can organize themselves into the pattern. You can give them some ideas if they experience difficulty. If there is enough time, repeat the activity giving other learners a chance.

DAY 2 (to take no more than 30 minutes)

- Get the learners to read the numbers on the number charts up to 7. Ask the learners to make the number 7 in the air with their fingers, on their table tops, on their hand, etc. Point to a number chart and let the learners count out the pictures.
- Ask the learners to count out 7 counters. Get them to put all the counters back into the containers. Let the learners work as a group and take out their counters and make groups of 7 counters. Ask if they are able to count all the counters on the table. Each learner then puts 7 counters back in their counting bag.
- Get some 3-D objects and place them on a table in front of the learners e.g. a big ball, a big rectangle shaped box, a big cube(dice) and a pyramid shaped object made from play dough or building blocks. Get learners to identify these objects. Discuss the shape and some of the properties of these shapes e.g. the ball is round, looking at similarities and differences.

DAY 3 (to take no more than 30 minutes)

- Give each group a pack of writing books, reading books, magazines and work books. Tell the learners that they are to count out 7 books and bundle them using a rubber band. Hand out pieces of paper. Learners write down number 7 and place it on top of each pile. Now swap the piles and ask the group to check if the pile is correct – are there 7 things in the pile?
- Settle learners and tell them to put out 7 counters from the counting containers. Encourage them to make various patterns with their 7 counters, e.g. 4 and 3, 2 and 5, etc.
- Put paper, crayons and templates of different shapes in the middle of each group. Ask learners to trace out 7 of each shape i.e. 7 triangles, 7 circles and so on. Once they have done this, they colour the shapes and then cut them out. Once the shapes have been cut out they can be arranged into different patterns, e.g. square, square, circle, square, square, and circle. Get the learners to draw the patterns that they made onto a sheet of paper.

Tip: Tracing, colouring and cutting the shapes can be done during the independent activities.

DAY 4 (to take no more than 30 minutes)

- Have picture cards (numbers 1-7) placed on the chalkboard e.g. card with five pictures, card with two pictures, etc. Place them randomly. Get learners to rearrange them in the correct order.
- Use the same picture cards and place them on the board once again. Give a few learners the number cards that you had made for the previous lesson. Get them to use these cards to match them with the correct picture card.
- Use the number cards to reinforce number recognition. Flashcards with number names one to seven can also be made. Learners can read these words and become familiar with them and thus prepare the learners for future lessons.
- Introduce the learners to simple number patterns, e.g. 1+1=? 2+1=? 3+1=? 4+1=? Each learner should have his/her own number line from 1 to 10. They place a counter on the number you say e.g. 3 and when you say "add 1", they move the counter one square, e.g. to 4. Write the number sentence on the board each time.

DAY 5 (whole lesson)

- Show learners a picture of big city. Tell them to look and study the different shapes of the buildings. Bring out the shapes you had on day 2. Inform the learners that most structures can be made from just 5 important and very simple shapes. These shapes are sheets, cylinders, cubes, spheres and cones. Make enough play-dough for the learners. Give each learner some play-dough and a board to work on (or a piece of newspaper) and tell them to make the above shapes. Then they can use several shapes together to make structures that are more complicated. These shapes can be sliced in half, or smaller, to make other shapes. ***Tip*****:** *Annexure 1 has a recipe for play-dough. The cooked play-dough lasts longer. Keep play-dough in a closed container if you want to use it again as it dries out quickly and then has to be thrown away.*

ASSESSMENT	**Formal :** No formal, recorded Assessment **Informal:** Unrecorded assessment of learners oral responses and ability to participate.

WEEK 2 : GROUP TEACHING

Week 2	GROUP TEACHING COMPONENT (Concept Development and Problem Solving)

Notes to teacher:

- By now you have established 3 groups. Every day you will work with 2 different groups in a small group situation e.g. sitting on the mat together. During this time you will do activities to develop number concepts at the level of the learners in the group. A number of types of activities are provided and you should do ALL the types each time you work with that group; but remember, although examples are provided, you should look for your own examples that will suit your learners. You will also give the learners at least 2 different word problems to solve every time you work with them. It is through solving problems and discussing the solutions that learners develop a sense of number, an understanding of the operations and the ability to reflect on their thinking.
- While you are working with a group, the rest of the class will be working independently. You need to provide them with a variety of activities which reinforce and consolidate concepts already learnt. Try to vary the activities e.g. giving a practical activity (counting counters in counting bags), a written activity (filling in numbers, sequencing, etc.) and a fun activity (dot-to-dot pictures, puzzles, etc.)
- If you have experienced difficulty doing counting out activities with the whole class, you can do them during group teaching time. This would give a better indication as to how the learners are progressing with the counting out activities. You will be able to assist the slower learners by interacting with them individually.

DAILY ACTIVITIES

Examples of activities to be done independently. *Work from a Learner's Book, worksheets, work cards, work charts etc.*

- Write the numbers 1 to 7 in their books, drawing the correct number of pictures next to each number and writing the correct word.

3	three	✂ ✂ ✂
7		
4		

- Complete a sequencing activity e.g. fill in the missing numbers on a number line, dot-to-dot etc.
- Fill in numbers on a number line or number square.
- Give the learners number cards 1 to 7. They arrange them from smallest to biggest then copy the numbers into their books.
- Provide cards with a different number of pictures on each card. Learners count the number of pictures, then write the number in their books and draw the pictures.
- Provide worksheets where learners have to match the objects on one side with the objects on the other (one-to-one correspondence).
- Make work charts e.g. draw 1 more and write the number. Have a different number of pictures on each row. Learners would draw one more picture on each row and write the number e.g. 3 pictures + 1 more picture will give you 4
- Do activities to develop the concepts of before/after/between

Working with the group

GROUP 1

*On **Monday** and **Wednesday** this group works with the teacher for 20 minutes*.

- Put up to 10 objects in the middle of the group. Let the learners look at the objects then cover them. Ask learners to estimate how many objects there are. Give each learner a chance to say how many s/he thinks there are and to write the number down. Uncover the objects and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Put a pile of counters in front of the group and ask them to each count out the number of objects you tell them. Use the numbers 1-15.
- Tell the learners to count 8 objects and then make groups of two. What happened? How many groups of 2 did you make? Were any counters left over? No, there were an even number of counters. Now tell the learners to count out 9 objects and then make groups of two. What happened? You have one left over. Ask if 9 is an even number? No, 9 is an odd number. Give the learners a few more examples working with odd numbers and even numbers.
- Give out counters to the learners. Have a chart prepared with a few number sentences (addition and subtraction). Work with number sentences up to 10. Get the learners to read the first number sentence. Check if they can recognize the sign and know the correct name of the sign. Learners must then put out the counters for the number sentence. For example, you write 6+2= ……. so learners will put out 6 counters and 2 counters. Ask the learners what to do as some learners will already have developed the concepts of adding and subtracting through the problem solving activities. Do 2 more number sentences.

  Tip: *This is practical work using social knowledge as you are preparing the learners to do this work on their own. Learners must understand what they are doing and gain enough confidence to be able to complete written work successfully.*
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 34. Let each learner tell the group how s/he solved the problem. On Monday the word problems will be one type 7 and one type 8 and on Wednesday you will ask one type 21 and one type 36 problem.

  Tip*: Remember, you are **not asking learners to write number sentences** for the problems. Solving problems is helping learners develop their own logico-mathematical knowledge. It is through solving problems that learners build up their own understanding of numbers, computations, fractions etc. Therefore you do not first teach, for example, addition and subtraction and then expect learners to use this knowledge to solve problems. Learners rather use the solving of problems to develop an understanding of the various mathematical concepts.*

GROUP 2

*On **Tuesday** and **Thursday** this group works with the teacher for 20 minutes*.

- Put up to 6 objects in the middle of the group. Let the learners look at the objects then cover them. Ask learners to estimate how many objects there are. Give each learner a chance to say how many s/he thinks there are and to write the number down if possible. Uncover the objects and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Put a pile of counters in front of the group and ask them to each count out the number of objects you tell them. Use the numbers 1-15.
- Tell the learners to count 8 objects and then make groups of two. What happened? How many groups of 2 did you make? Were any counters left over? No, there were an even number of counters. Now tell the learners to count out 9 objects and then make groups of two. What happened? You have one left over. Ask if 9 is an even number? No, 9 is an odd number. Give the learners a few more examples working with odd numbers and even numbers.
- Give out counters to the learners. Have a chart prepared with a few number sentences (addition and subtraction). Work with number sentences up to 6. Get the learners to read the first number sentence. Check if they can recognize the sign and know the correct name of the sign. Learners must then put out the counters for the number sentence. For example, you write 4+2=….. so learners will put out 4 counters and 2 counters. Ask them to look at the sign as the sign tells us what to do. Ask the learners what to do as some learners already have knowledge of adding and subtracting. Do as many number sentences as time permits.

  Tip: *This is practical work developing social knowledge as you prepare the learners to do this work on their own. Learners must understand what they are doing and gain enough confidence to be able to complete written work successfully.*
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 20. Let each learner tell the group how s/he solved the problem. On Tuesday the word problems will be one type 1 and one type 2 and on Thursday you will ask one type 21 and one type 36 problem.

  Tip*: Remember, you are **not asking learners to write number sentences** for the problems. Solving problems is helping learners develop their own logico-mathematical knowledge. It is through solving problems that learners build up their own understanding of numbers, computations, fractions etc. Therefore you do not first teach, for example, addition and subtraction and then expect learners to use this knowledge to solve problems. Learners rather use the solving of problems to develop an understanding of the various mathematical concepts.*

GROUP 3

*This group works with the teacher **every day** for 20 minutes.*

- Put up to 6 objects in the middle of the group. Let the learners look at the objects then cover them. Ask learners to estimate how many objects there are. Give each learner a chance to say how many s/he thinks there are. Uncover the objects and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Put a pile of counters in front of the group and ask them to each count out the number of objects you tell them. Use the numbers 1-15.
- Use the flash cards you have made with the signs on them e.g. +, □ and =. Get the learners to say the names of the signs and see if they can recognize the signs. Give the learners 6 counters. Tell them to put out e.g. 4 and 2, then put them together and see how many you have. Do a few more examples and observe the learners. Then do some subtraction number sentences e.g. 6-4=? Let them become comfortable working with the counters as these learners require a lot of support and direction from you.
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 10. Let each learner tell the group how s/he solved the problem. On Monday and Tuesday the word problems will be one type 7 and one type 8 and on Wednesday and Thursday you will ask one type 21 and one type 36 problem.

  ***Tip:** It is through solving problems that learners build up their own understanding of numbers, computations, fractions etc. Therefore you do not first teach, for example, addition and subtraction and then expect learners to use this knowledge to solve problems. Learners rather use the solving of problems to develop an understanding of the various mathematical concepts.*

Assessment	**Formal :** No formal, recorded Assessment **Informal :** Unrecorded assessment of learners oral responses and ability to participate

SECOND TERM: WEEK 3 OVERVIEW

<table>
<tr><th>COMPONENT</th><th>MILESTONES</th><th>DAY 1</th><th>DAY 2</th><th>DAY 3</th><th>DAY 4</th><th>DAY 5</th></tr>
<tr><td>COUNTING

LO 1 AS 1,2</td><td>• Says number names in sequence (rote counting)
• Counts out objects to 10 reliably
• Counts to 40 on the number line
• Counts in multiples of 2 using concrete objects</td><td colspan="5">Daily:
• Rote count from 1-100
• Count in 1s up to 50 while pointing on a number line/ number grid or count using an abacus.
• Count forwards and backwards up to 50
• Ask questions like which number is before __; after _____; between _____ and _____.
• Count in 2s from 1-10 Count body parts e.g. 2 eyes</td></tr>
<tr><td rowspan="3">NUMBER SENSE AND MENTAL

LO1 AS 3,4,7,9
LO 2 AS 1,2
LO 3 AS 1</td><td rowspan="3">• Says which of 2 given collections is bigger (more) or smaller (less)
• Orders more than 2 given numbers from smallest to biggest
• Identifies number concept of before and after
• Writes and reads number symbols from 1-20
• Writes and reads number names from 1-10
• Copies simple patterns using physical objects and drawings
• Copies simple number sequences to 10
• Makes and describes 3-D objects and 2D shapes by size (big or small)</td><td colspan="5">Daily:
• Revision of numbers 1 to 7
• Revision of ordinal value 1st to 7th
• Numbers and number names up to 7 withdrawal</td></tr>
<tr><td>DAY 1</td><td>DAY 2</td><td>DAY 3</td><td>DAY 4</td><td>DAY 5</td></tr>
<tr><td>Patterns objects

Properties of 2-D shapes-circle

Introduce 8</td><td>Patterns numbers

Properties of 2-D shapes-square

Knows, reads and writes number and number name for 8</td><td>Patterns drawings

Properties of 2-D shapes-triangle

Knows, reads and writes number and number name for 8</td><td>Patterns numbers

Properties of 2-D shapes-rectangle

Knows, reads and writes number and number name for 8</td><td>WHOLE CLASS ACTIVITY

Investigates properties of 2-D shapes</td></tr>
<tr><td>GROUP TEACHING

LO 1 AS7, 8, 9, 10</td><td>• Estimates up to 10 objects
• Identifies odd and even numbers
• Solves all types of problems, and explains solutions, using concrete objects and drawings using numbers to 10</td><td colspan="4">Ask each group the same problems. They can be solved using counters, drawings, etc.
Number range: Group 1 works in 1-34; Group 2 works in 1-20; Group 3 works in 1-10</td><td rowspan="2"></td></tr>
<tr><td>Group 1 and 3 work with teacher, one group at a time. .
Ask one doubling and one halving word problem.
Group 2 works on its own</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one doubling and one halving word problem.
Group 1 works on its own</td><td>Groups 1 and 3 work with teacher, one group at a time.
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Group 2 works on its own.</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one type 7 and one type 8 word problem.
Group 1 works on its own</td></tr>
</table>

WEEK 3: WHOLE CLASS

WEEK 3	WHOLE CLASS COMPONENT (Counting and Mental/Number sense)

Notes to the teacher:

- Counting at the beginning of the day helps learners focus on numbers. Every day you will let your learners do rote counting (to develop the vocabulary of numbers) as well as rational counting (thinking what they are doing) activities. Counting at the beginning of the lesson is done with the whole class every day.
- By now you would have made sufficient resources that would assist you with these activities. Initially learners require 'crutches' to help them complete activities.
- Delegate duties to responsible learners to help you hand out resources like counters, puzzles etc. to the learners.
- Daily activities indicate activities that should be done every day. The specific concepts being developed are indicated every day e.g. Day 1.

DAILY ACTIVITIES

COUNTING AND MENTAL/NUMBER SENSE

Daily Activities.(to take no more than 10 minutes)

These must be done daily:

- Learners rote count to at least 100 and further if they can. This should be fun for the learners so make sure you use a variety of strategies when doing rote counting.
- Give different learners a chance to point to the numbers on a number line or a number grid as the rest of the class counts to 50. At the same time let a learner push the same number of beads across on the abacus.
  Tip*: You need to give a few learners an opportunity to do this every day as it is an assessment activity towards Assessment Task 1*
- Count backwards from 50 to 1.

Choose from the following to make up the 10 minutes:

- Introduce learners to counting in multiples of 2. Get 3 to 4 learners to stand in front of the class. Count the eyes 2, 4, 6 etc. Count the ears, hands, legs, etc. Get more learners to join the group in front. Learners must become aware that they are adding 2 each time. Counting body parts initially is a good to way to start counting in twos.
- Revise numbers 1-7 from the number charts. Get learners to read the number names as well.
- Revise ordinal numbers from 1st to 7th.
- Mark the register, complete the weather chart and birthday chart every day, using the time to develop basic concepts e.g. colour, sequencing days and months, ordering, etc.

DAY 1 (to take no more than 30 minutes)

- Ask the learners to get out their counting bags/boxes and count out 7 objects. Ask a learner to point out the number 7 on the chart. Now tell the learners to count out 1 more object. How many objects do they have now? (8) Can they show you 8 fingers?
- Show the learners pictures of a spider and an octopus and discuss them - how many eyes, how many legs, etc. Ask the learners if they have 8 of something. Can they show you 8 fingers? Can they get into groups of 8 children? Can they get into groups where there are 8 legs? Can they get into groups where there are 8 noses? Etc.

- Introduce number 8 to learners by showing them the number 8 chart. The learners study the shape of number 8 and count the pictures. Discuss the number and what it looks like. Show the learners how it looks like a spider's body and a spider has 8 legs. Demonstrate how 8 is formed and let the learners draw an 8 with their fingers in the air, on their tables, on the imaginary chalkboard, etc. Encourage the class to explore the cardinal value of 8 by clapping or clicking or stamping 8 times etc.
  Tip: *Put up the number 8 chart next to the other 7 number charts.*
- This is a practical activity. Hand out 3-D objects to learners while they are seated in groups e.g. tennis balls, biscuit boxes (rectangle shape), square shaped boxes, triangles made with building blocks and other objects that they can bring from home. Get learners to create patterns with the objects on their tables. Walk around and observe the learners. They should be able to grasp the concept after the previous lessons. Assist wherever necessary.
- Make a large cut-out of a circle with cardboard. Colour it brightly to get the learners attention. Get the learners to tell you something about a circle. See how much they know and understand. Some of the properties are - a circle is round/it has no sides or angles/the outer edge of the circle is called the circumference. Get the learners to draw the circle in the air. Ask them if they know of objects that have the same shape as a circle.

DAY 2 (to take no more than 30 minutes)

- Get the learners to read the numbers on the number charts to 8. Ask the learners to make the number 8 in the air with their fingers, on their table tops, on their hand, etc. Point to a number chart and get the learners to count out the pictures.
- Let the learners work in pairs. One learner counts out 8 objects from their counting bag and the other checks that it is correct by counting as the objects are put back into the bag. Swap over and repeat the activity.
- Tell the learners to look at their number lines. Ask them to find 8 on their number line. What comes before 8/after8? What is 2 more than 8/2 less than 8? You can vary your questions according to the level of the learners.
- Have a flip chart ready for the learners with the number pattern 1+2=? 2+2=? 3+2=?
  Let learners put out 1 counter and then put out another 2 counters and count how many counters altogether. Write in the answer. Now let them put out 2 counters and then another 2 counters, counting how many altogether. Carry on till all the number sentences have been completed. Ask if anyone can see a pattern in the numbers.
- Make a large cut-out of a square. Colour it. Get the learners to tell you something about a square. See how much they know and understand. Then discuss the properties of a square e.g. the square has 4 equal sides and 4 equal angles. Ask them to draw the square in the air. Ask them to identify any objects that are square in shape in the classroom.

DAY 3 (to take no more than 30 minutes)

- Give each group a pack of writing books, reading books, magazines and work books. Tell the learners that they are to count out 8 books and bundle them using a rubber band. Hand out pieces of paper. Learners write down number 8 and place it on top of each pile. Now swap the piles and ask the groups to check that the new pile has 8 objects in it.

- Settle learners and tell them to count out 8 counters from the counting bags/containers. Encourage them to make various patterns with their 8 counters, e.g. 5 and 3, 2 and 6, etc.
- Make a large cut-out of a triangle. Colour it. Get the learners to tell you something about a triangle. See how much they know and understand. Then discuss the properties of a triangle e.g. the triangle has 3 sides and 3 angles. Ask them to draw the triangle in the air. Ask to identify any objects that are triangular in shape in the classroom.

DAY 4 (to take no more than 30 minutes)

- Have picture cards (numbers 1-8) placed on the chalkboard e.g. card with seven pictures. Place them randomly. Get learners to rearrange them in the correct order.
- Use the same picture cards and place them on the board once again. Give a few learners the number cards that you had made for the previous lesson. Get them to use these cards to match them with the correct picture card.
- Use the number cards to reinforce number recognition. Flashcards with number names one to eight can also be made. Learners can read these words and become familiar with them and thus the learners are prepared for future lessons.
- Introduce the learners to simple number patterns, e.g. counting backwards from 5 to1 using an abacus as well as a number line.
- Make a large cut-out of a rectangle. Colour it. Get the learners to tell you something about a rectangle. See how much they know and understand. Then discuss the properties of a rectangle e.g. the rectangle has 2 long sides, 2 short sides and 4 angles. Ask them to draw the rectangle in the air. Ask to identify any objects that are rectangular in shape in the classroom. Ask learners to identify similarities and differences between a square and a rectangle. Ask if a square is a rectangle (the answer is yes!).

DAY 5 (whole lesson)

- Discuss the properties of the 2-D shapes dealt with during the week.
- Before the lesson make templates of the shapes - make different sizes as well. Get the learners to use these templates and trace around them, colour them and cut them out. Learners use the shapes that have been cut out to create a picture, e.g. a house with a garden. (triangle roof, square house/walls, rectangle door, square windows, round sun, round flowers with triangle shaped leaves, etc.)

  Tip: *If the above activity is too complex for your learners, then let them create different pictures with the shapes, e.g. a cat, a house, a snowman etc.*

ASSESSMENT	**Formal :** No formal, recorded Assessment **Informal:** Unrecorded assessment of learners oral responses and ability to participate.

WEEK 3 : GROUP TEACHING

Week 3	GROUP TEACHING COMPONENT (Concept Development and Problem Solving)

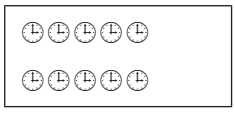
Notes to teacher:

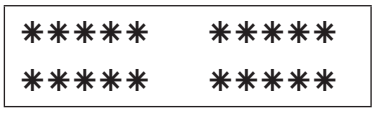
- By now you have established 3 groups. Every day you will work with 2 different groups in a small group situation e.g. sitting on the mat together. During this time you will do activities to develop number concepts at the level of the learners in the group. A number of types of activities are provided and you should do ALL the types each time you work with that group; but remember, although examples are provided, you should look for your own examples that will suit your learners. You will also give the learners at least 2 different word problems to solve every time you work with them.
- **It is through solving problems and discussing the solutions that learners develop a sense of number, an understanding of the operations and the ability to reflect on their thinking.**
- While you are working with a group, the rest of the class will be working independently. You need to provide them with a variety of activities which reinforce and consolidate concepts already learnt. Try to vary the activities e.g. giving a practical activity (counting counters in counting bags), a written activity (filling in numbers, sequencing, etc.) and a fun activity (dot-to-dot pictures, puzzles, etc.)
- If you have experienced difficulty doing counting out activities with the whole class, you can do them during group teaching time. This would give a better indication as to how the learners are progressing with the counting out activities. You will be able to assist the slower learners by interacting with them individually.
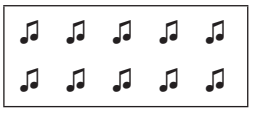
DAILY ACTIVITIES

Examples of activities to be done independently. *Work from a Learner's Book, worksheets, work cards, work charts etc.*

- Write the numbers 1 to 8 in their books, drawing the correct number of pictures next to each number and writing the correct word.
- Complete a sequencing activity e.g. fill in the missing numbers on a number line, dot-to-dot etc.
- Fill in numbers on a number line or number square.
- Give the learners number cards 1 to 8. They arrange them from smallest to biggest then copy the numbers into their books.
- Provide cards with a different number of pictures on each card. Learners count the number of pictures, then write the number in their books and draw the pictures.







- Provide worksheets where learners have to match the objects on one side with the objects on the other (one-to-one correspondence).
- Make work charts e.g. draw 1 more and write the number. Have a different number of pictures on each row. Learners would draw one more picture on each row and write the number e.g. 3 pictures + 1 more picture will give you 4
- On a sheet of paper learners draw shapes they know (circle, triangle, etc.) to make a pattern.

Working with the group

GROUP 1

*On **Monday** and **Wednesday** this group works with the teacher for 20 minutes*.

- Draw a picture of a ladybird. Stick 10 big coloured spots on its body. Let the learners look at the picture then cover it. Ask learners to estimate how many spots are there. Give each learner a chance to say how many s/he thinks there are. Uncover the picture and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?

  Tip: *Stick spots so that you add or take out spots as desired.*
- This is a recorded activity so learners will need crayons and counters. Prepare a work card for each learner with a number grid from 1-10 which you will use to develop the concept of odd and even numbers. Ask learners to count out 4 counters and then put them into groups of 2. Ask if any counters are left over. Do the same with 6, 8 and 10 counters. Ask if anyone remembers what these numbers are called – even numbers. Now ask learners to put out 3 counters and make groups of 2. Ask if any counters are left over. Do the same with 5, 7 and 9 counters. Ask if anyone remembers what these numbers are called – odd numbers. Ask learners to put their finger on number 6 on the grid, then put out 6 counters and make groups of 2. Do they have any left over? No, so 6 is an even number. Colour the number 6 square red. Ask learners to place their finger on number 3 on the grid. Tell them to put out 3 counters and make a group of 2. They find that they can make only one group of 2 and 1 would be left over. This makes 3 an odd number. Colour number 3 square green. As the learners progress with this activity all the odd numbers will be green and the even numbers will be red.
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 34. Let each learner tell the group how s/he solved the problem. Encourage them to use numbers and symbols if possible once they have explained their thinking. On Monday the word problems will be one doubling and one halving and on Wednesday you will ask one type 7 and one type 8 word problems.

  Tip: *Word problems are used in order to put numbers into **context** for young learners and to engage them cognitively. If you were to ask six year olds what 3 plus 2 is, there is no saying what answer they might give. If, however, you were to say to them. "You have three sausages and I give you two more. How many do you have?" most learners would correctly answer that they have five.*

GROUP 2

*On **Tuesday** and **Thursday** this group works with the teacher for 20 minutes*.

- Use the ladybird as for Group 1, but stick 6 spots. Let the learners look at the picture then cover it. Ask learners to estimate how many spots are there. Give each learner a chance to say how many s/he thinks there are. Uncover the picture and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?

- This is a recorded activity so learners will need crayons and counters. Prepare a work card for each learner with a number grid from 1-10 which you will use to develop the concept of odd and even numbers. Ask learners to count out 4 counters and then put them into groups of 2. Ask if any counters are left over. Do the same with 6, 8 and 10 counters. Ask if anyone remembers what these numbers are called – even numbers. Now ask learners to put out 3 counters and make groups of 2. Ask if any counters are left over. Do the same with 5, 7 and 9 counters. Ask if anyone remembers what these numbers are called – odd numbers. Ask learners to put their finger on number 6 on the grid, then put out 6 counters and make groups of 2. Do they have any left over? No, so 6 is an even number. Colour the number 6 square red. Ask learners to place their finger on number 3 on the grid. Tell them to put out 3 counters and make a group of 2. They find that they can make only one group of 2 and 1 would be left over. This makes 3 an odd number. Colour number 3 square green. As the learners progress with this activity all the odd numbers will be green and the even numbers will be red.
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 20. Let each learner tell the group how s/he solved the problem. On Tuesday the word problems will be one doubling and one halving and on Thursday you will ask one type 7 and one type 8 problem.

GROUP 3

*This group works with the teacher **every day** for 20 minutes.*

- Use the ladybird as for the other groups, but stick 6 spots. Let the learners look at the picture then cover it. Ask learners to estimate how many spots are there. Give each learner a chance to say how many s/he thinks there are. Uncover the picture and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Place a pile of counters in the middle of the group and ask each learner to count out a given number of objects between 1 and 20. Give each learner a different number.
- This is a recorded activity so learners will need crayons and counters. Prepare a work card for each learner with a number grid from 1-10 which you will use to develop the concept of odd and even numbers. Ask learners to count out 4 counters and then put them into groups of 2. Ask if any counters are left over. Do the same with 6, 8 and 10 counters. Ask if anyone remembers what these are called – even numbers. Now ask learners to put out 3 counters and make groups of 2. Ask if any counters are left over. Do the same with 5, 7 and 9 counters. Ask if anyone remembers what these numbers are called – odd numbers. Ask learners to put their finger on number 6 on the grid and ask if it is an odd or an even number. Colour the number 6 square red. Ask learners to place their finger on number 3 on the grid and ask if it is an odd or an even number. Colour number 3 square green. Repeat this with all the numbers up to 10. As the learners progress with this activity all the odd numbers will be green and the even numbers will be red.

• Make flash cards with the signs on them e.g. +, □ and =. Get the learners to say the names of the signs and see if they can recognize the signs. Do some addition and subtraction number sentences up to 7 e.g. give the learners 7 counters. Tell them to put out e.g. 4 and 3, then put them together and see how many they have. Ask which sign they would use (+) and if anyone can tell you the number sentence. Write the correct number sentence e.g. 4+3=7 and 7=4+3. Now tell learners to count out 6 counters, then take 2 away. Ask how many are left. Ask which sign should be used and if anyone can tell you how to write the correct number sentence. Write it as the learners tell you, making sure it is correct. Do a few more examples making sure learners are comfortable working with the counters as these learners require a lot of support and direction from you. ***Tip**: If you have time, you can ask word problems. However, learners need to begin recording number sentences if you are sure they have built up an understanding of the concepts of addition and subtraction. It is best to do this in a small group situation where you can observe what is happening and provide the necessary guidance.*	
Assessment	**Formal :** No formal, recorded Assessment **Informal :** Unrecorded assessment of learners oral responses and ability to participate

SECOND TERM: WEEK 4 OVERVIEW

<table>
<tr><th>COMPONENT</th><th>MILESTONES</th><th>DAY 1</th><th>DAY 2</th><th>DAY 3</th><th>DAY 4</th><th>DAY 5</th></tr>
<tr><td>COUNTING

LO 1 AS 1,2</td><td>• Says number names in sequence (rote counting)
• Counts out objects to 10
• Counts to 50 reliably e.g. using a number line, abacus, etc.
• Counts in multiples of 2 using concrete objects</td><td colspan="5">Daily:
• Rote count from 1-100
• Count in 1s up to 50 while pointing on a number line/ number grid or count using an abacus.
• Ask questions like which number is before __; after _____; between
• Count in 2s from 1-10 using body parts e.g. 2 eyes</td></tr>
<tr><td rowspan="2">NUMBER SENSE AND MENTAL

LO1 AS 3,4,7,9
LO 2 AS 1, 2,3
LO 3 AS 1</td><td rowspan="2">• Says which of 2 given collections is bigger (more) or smaller (less)
• Orders more than 2 given numbers from smallest to biggest
• Identifies number concept of before and after
• Writes and reads number symbols from 1-20
• Writes and reads number names from 1-10
• Copies simple patterns using physical objects and drawings
• Copies simple number sequences to 10
• Makes and describes 3-D objects and 2D shapes by size (big or small)</td><td colspan="5">Daily:
• Revision of numbers 1 to 8
• Revision of ordinal value 1st to 8th
• Numbers and number names up to 8</td></tr>
<tr><td>DAY 1

Patterns objects

Cardinal value 9</td><td>DAY 2

Patterns numbers

Properties of 2-D shapes

Cardinal value 9</td><td>DAY 3

Patterns drawings

Properties of 3-D objects

Cardinal value 9</td><td>DAY 4

Patterns numbers

Cardinal value 9</td><td>DAY 5

WHOLE CLASS ACTIVITY.

Properties of 2-D shapes and 3-D objects</td></tr>
<tr><td>GROUP TEACHING

LO 1
AS6,7,10,11</td><td>• Recognises addition, subtraction and equals signs (+, -, =) in the context of word problems
• Estimates up to 10 objects
• Identifies odd and even numbers
• Solves all types of problems, and explains solutions, using concrete objects and drawings using numbers to 10</td><td colspan="4">Ask each group the same problems. They can be solved using counters, drawings, etc.
Number range: Group 1 works in 1-34; Group 2 works in 1-20; Group 3 works in 1-10</td><td></td></tr>
<tr><td></td><td></td><td>Group 1 and 3 work with teacher, one group at a time. .
Ask one sharing and one addition word problem.
Group 2 works on its own</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one sharing and one subtraction word problem.
Group 1 works on its own</td><td>Groups 1 and 3 work with teacher, one group at a time.
Ask one grouping and one subtraction word problem
Group 2 works on its own</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one grouping and one subraction word problem.
Group 2 works on its own</td><td></td></tr>
</table>

WEEK 4 : WHOLE CLASS

WEEK 4	WHOLE CLASS COMPONENT (Counting and Mental/Number sense)

Notes to the teacher:

- Counting at the beginning of the day helps learners develop a sense of numbers. This forms part of developing the numerosity of numbers.
- Every day you will let your learners do rote counting (to develop the vocabulary of numbers) as well as rational counting (thinking what they are doing) activities. Counting at the beginning of the lesson is done with the whole class every day.
- By now you would have made sufficient resources that would assist you with these activities. Get learners to bring objects that could be used for counting.
- Delegate duties to responsible learners to help you hand out resources like books, pencils, counters, puzzles etc.
- Daily activities indicate activities that should be done every day. The specific concepts being developed are indicated every day e.g. Day 1.
- **Assessment Task 1 will be completed by the end of the week.**

DAILY ACTIVITIES

COUNTING AND MENTAL/NUMBER SENSE

Daily Activities.(to take no more than 10 minutes)

These must be done daily:

- Learners rote count to at least 100 and further if they can. This should be fun for the learners so make sure you use a variety of strategies when doing rote counting.
- Give different learners a chance to point to the numbers on a number line or a number grid as the rest of the class counts to 50. At the same time let a learner push the same number of beads across on the abacus.

  Tip*: You need to give a few learners an opportunity to do this every day as it is an assessment activity towards Assessment Task 1*

Choose from the following to make up the 10 minutes:

- Do this practical activity outside if possible. Let the learners make a circle with you and sit down. Give each learner a card with a number. Call out a number e.g. 33. The learner with the correct number will stand in front of you so that the rest of the learners can see the number. Now ask the learners which number comes after number 33. See if the learners can identify the number 34. The learner with the number must come forward and stand in the correct position next to number 33. Other learners must check to see if the learner is in the correct place. Then ask the learners which number comes before 33. The learners must identify the correct number and the learner must then get into the correct position. Keep asking this type of question until you get the learners standing in the correct order. Give a few learners a chance to count the number of learners by pointing to the number held by the learners as they count

  Tip*: You can use this as an assessment activity towards Assessment Task 1. You are assessing if the learners can count to 50, so use it as well as the activity above to make sure every learner gets a chance to count. Not every learner needs to do both activities, but all need to be given an opportunity to count aloud to 50.*

- Get 3 or 4 learners to stand in front of the class. Count the eyes 2, 4, 6 etc. Count the ears, hands, legs, etc. Get more learners to join the group in front. Learners must become aware that they are adding 2 each time. Counting body parts initially is a good to way to start counting in twos.

DAY 1 (to take no more than 30 minutes)

- Ask the learners to get out their counting boxes and count out 8 objects. Ask a learner to point out the number 8 chart. Repeat this using other numbers as you revise the numbers 1-8. Now tell the learners to count out 1 more object than 8. How many objects do they have now? (9) Can they show you 9 fingers? Making sure that all the learners can see the number grid, point to number 9 and ask if anyone knows what this number is. Most of the learners should be able to tell you. Demonstrate on the board exactly how a 9 is written. Let the learners write the number 9 in the air using their fingers, then count out 9 beads on the abacus, count 9 children, count 9 books, count 9 pencils, count 9 of what they can see in the classroom, each time writing the number 9 in the air.
  Tip: *Put up the number 9 chart next to the other 8 number charts.*
- This is a practical activity. Hand out 3-D objects to learners while they are seated in groups e.g. tennis balls, biscuit boxes (rectangle shape), square shaped boxes, triangles made with building blocks and other objects that they can bring from home. Get learners to use the objects to create different kinds of patterns or sequences. Ask a few learners to tell the rest of the class what their pattern or sequence is e.g. box, tennis ball, box, tennis ball or box, tennis ball, triangle, tin.
  Tip*: Walk around and observe the patterns. Use this towards Assessment Task 1.*

DAY 2 (to take no more than 30 minutes)

- Let the learners read the numbers on the number charts to 9. Ask the learners to make the number 9 in the air with their fingers, on their table tops, on their hand, etc. Point to a number chart and get the learners to count out the pictures.
- Ask the learners to count out 9 counters. Get them to put all the counters back into the containers. Then let them work as a group and take out their counters and make groups of 9 counters.
- Tell the learners to look at their number lines. Ask them to find 9 on their number line. What comes before 9/after9? What is 2 more than 9/2 less than 9? You can vary your questions.
- Have a flip chart ready for the learners with the number pattern 1+3=? 2+3=? 3+3=?
  Let learners put out 1 counter and then put out another 3 counters and count how many counters altogether. Write in the answer. Now let them put out 2 counters and then another 3 counters, counting how many altogether. Carry on till all the number sentences have been completed. Ask if anyone can see a pattern in the numbers.
- Take out the large cut-outs of the shapes you made last week. Discuss the properties of each of the 2-D shapes and ask questions to gauge how much knowledge of shapes the learners understand and know. Ask learners to identify any objects in the classroom that have these shapes.

***Tip**: Make sure you let different learners answer the questions so that you can use this activity as part of Assessment Task 1.*

DAY 3 (to take no more than 30 minutes)

- Take the learners outside and ask them to get into groups of 2, then 5, then 9, etc. Each time they must write the number in the group in the air with their fingers. When they are in a group of 9, let them arrange themselves in different patterns e.g. 5 and 4, 7 and 2, etc. You can also do this activity in the classroom if there is enough space.
- Give each group 10 pieces of paper. Each learner takes one piece of paper and writes a number from 1 to 10 - the first learner writes 1, the learner on the left writes 2, and so on. Once all the numbers are written down, learners arrange them in the correct sequence. Ask them to muddle the numbers up, and then arrange them in the correct sequence again.
  ***Tip:** You need to walk around and observe what the learners are doing as this is part of Assessment Task 1. Observe at least half the class. The other learners can be assessed on Day 4.*
- Take out the different 3-D objects that you have collected e.g. cube (box, dice), sphere (ball), and sheets (a piece of plank, a piece of paper). Ask questions which will encourage discussion on the properties of these objects.
  ***Tip**: Make sure you let different learners answer the questions so that you can use this activity as part of Assessment Task 1.*

DAY 4 (to take no more than 30 minutes)

- Have picture cards (numbers 1-9) placed randomly on the chalkboard e.g. card with nine pictures. Get learners to rearrange them in the correct order. Use the same picture cards and place them on the board once again. Give a few learners the number cards that you made for the previous lesson. Let them use these cards and match them with the correct picture card.
  ***Tip**: This activity can be used as an assessment activity towards Assessment Task 1. Use it to assess learners who were not assessed on Day 3.*
- Use the flashcards with number names one to nine and place them around the classroom (on the walls, on the windows, on the door, etc). Let learners work in pairs to find the 'hidden' number names.
- Design a worksheet where learners will be able to sequence numbers from 1-10 e.g. completes the number line by filling in the missing numbers. Make the number line interesting by drawing it like a snake, train, ladder, etc.
  ***Tip:** Have a look at work books to get ideas. This activity can be used towards Assessment Task 1.*

DAY 5 (whole lesson)

- Put an assortment of 2-D shapes and 3-D objects in the middle of each group, enough for the whole group to have one each. Starting with one group, ask a learner to describe their shape or object in terms of its properties i.e. **not** saying *this is a box*, but describing it.

Ask who else in the class has a shape or object that matches the description given by the learner. Give different learners an opportunity to describe the properties of their shape or object while others have to listen and respond. ***Tip**: Use this activity towards Assessment Task 1.* • Now put the learners into groups of 4 and ask them to construct something out of the material available e.g. use a toothpaste box, a match box and some reels to make a truck. Make sure learners have access to paper, scissors, glue, crayons, etc.They can paint or decorate their construction as well as give it a name. Display the objects around the classroom, or in the foyer of the school.	
ASSESSMENT	**Formal: Recorded Assessment Task 1:** During the whole class and group teaching activities as indicated, rate the learners against the following milestones, recording specific problems : • Counts out objects to 20 • Counts to 50 on abacus and number line/number square • Identifies odd and even numbers • Copies simple number sequences to 10 • Makes and describes 3-D objects and 2D shapes by size (big or small)

WEEK 4 : GROUP TEACHING

Week 4	GROUP TEACHING COMPONENT (Concept Development and Problem Solving)

Notes to teacher:

- By now you have established 3 groups. Every day you will work with 2 different groups in a small group situation e.g. sitting on the mat together. During this time you will do activities to develop number concepts at the level of the learners in the group. A number of types of activities are provided and you should do ALL the types each time you work with that group; but remember, although examples are provided, you should look for your own examples that will suit your learners. You will also give the learners at least 2 different word problems to solve every time you work with them. It is through solving problems and discussing the solutions that learners develop a sense of number, an understanding of the operations and the ability to reflect on their thinking.
- While you are working with a group, the rest of the class will be working independently. You need to provide them with a variety of activities which reinforce and consolidate concepts already learnt. Try to vary the activities e.g. giving a practical activity (counting counters in counting bags), a written activity (filling in numbers, sequencing, etc.) and a fun activity (dot-to-dot pictures, puzzles, etc.)
- It is better to do the counting out activities during group teaching time as this will give a better indication as to how the learners are progressing with the counting out activities. This week you will do the counting out activity as part of **Assessment Task 1.**

DAILY ACTIVITIES

Examples of activities to be done independently. *Work from a Learner's Book, worksheets, work cards, work charts etc.*

- Write the numbers 1 to 9 in their books, drawing the correct number of pictures next to each number and writing the correct word.
- Fill in numbers on a number line or number square.
  ***Tip**: This can be used as an assessment activity (see Day 4)*
- Provide cards with a different number of pictures on each card. Learners count the number of pictures, then write the number in their books and draw the pictures.
- Provide worksheets where learners have to match the objects on one side with the objects on the other (one-to-one correspondence).
- Write the numbers 1 to 9 in random order on the board. Learners arrange them from smallest to biggest, drawing the correct number of sticks next to each number.
- Write number sentences using the patterns of +1, +2 etc. Allow learners to use counters, draws dots, etc. if they need to.

1+1= 1-1= 2+2= 2-1= 3+1= 3-1= Etc.		1+2= 2+2= 2-2= 3+2= 3-2= Etc.

Working with the group

GROUP 1

*On **Monday** and **Wednesday** this group works with the teacher for 20 minutes*.

- Put some paper clips and a pencil in the middle of the group. Ask the learners to estimate how many paper clips will be needed to make the length of the pencil. Get each learner to write his/her answer on a small piece of paper. Ask one learner to place the paper clips under the pencil, counting how many are needed. Ask the others to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Put a pile of counters in the middle of the group. Working in pairs, ask learners to count out 20 objects. One learner counts out the objects, then the other learner checks if the correct number is there by counting them again.
  ***Tip**: Use this activity towards Assessment Task 1.*
- Prepare a work sheet with a number grid from 1-10 to assess the concept of odd and even numbers. Ask the learners to draw a circle around the odd numbers and draw a triangle around the even numbers. Ask the learners to write down all the odd numbers from 1 to 10 and then to write down all the even numbers.
  ***Tip:** This is an assessment activity as part of Assessment Task 1. You can make reference to workbooks to get other ideas for activities on odd and even numbers.*
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 34. Let each learner tell the group how s/he solved the problem. On Monday the word problems will be one sharing and one addition and on Wednesday you will ask one grouping and one subtraction word problem.
  ***Tip:** Refer to the annexure on Problem types in order make sure learners are introduced to a variety of problems, both routine and non-routine. Learners need to solve different problems regularly because different problems require different solution strategies. Individual skills and interests vary, and so what may be a problem for one learner will not be a problem for another learner.*

GROUP 2

*On **Tuesday** and **Thursday** this group works with the teacher for 20 minutes*.

- Put some paper clips and a pencil in the middle of the group. Ask the learners to estimate how many paper clips will be needed to make the length of the pencil. Get each learner to write his/her answer on a small piece of paper. Ask one learner to place the paper clips under the pencil, counting how many are needed. Ask the others to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Put a pile of counters in the middle of the group. Working in pairs, ask learners to count out 20 objects. One learner counts out the objects, then the other learner checks if the correct number is there by counting them again.
  ***Tip**: Use this activity towards Assessment Task 1.*

- Prepare a work sheet with a number grid from 1-10 to assess the concept of odd and even numbers. Ask the learners to draw a circle around each odd number and draw a triangle around each even number. Ask the learners to write down all the odd numbers from 1 to 10 and then to write down all the even numbers.
  Tip: *This is an assessment activity as part of Assessment Task 1. You can make reference to workbooks to get other ideas for activities on odd and even numbers.*
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 20. Let each learner tell the group how s/he solved the problem. On Monday the word problems will be one sharing and one addition and on Wednesday you will ask one grouping and one subtraction word problem.
  Tip: *Refer to the annexure on Problem types in order make sure learners are introduced to a variety of problems, both routine and non-routine. Learners need to solve different problems regularly because different problems require different solution strategies. Individual skills and interests vary, and so what may be a problem for one learner will not be a problem for another learner.*

GROUP 3

*This group works with the teacher **every day** for 20 minutes.*

- Put some paper clips and a pencil in the middle of the group. Ask the learners to estimate how many paper clips will be needed to make the length of the pencil. Get each learner to write his/her answer on a small piece of paper. Ask one learner to place the paper clips under the pencil, counting how many are needed. Ask the others to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Put a pile of counters in the middle of the group. Working in pairs, ask learners to count out 20 objects. One learner counts out the objects, then the other learner checks if the correct number is there by counting them again.
  Tip*: Use this activity towards Assessment Task 1.*
- Prepare a work sheet with a number grid from 1-10 to assess the concept of odd and even numbers. Ask the learners to draw a circle around each odd number and draw a triangle around each even number. Ask the learners to write down all the odd numbers from 1 to 10 and then to write down all the even numbers.
  Tip: *This is an assessment activity as part of Assessment Task 1. You can make reference to workbooks to get other ideas for activities on odd and even numbers.*
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 10. Let each learner tell the group how s/he solved the problem. On Monday the word problems will be one sharing and one addition and on Wednesday you will ask one grouping and one subtraction word problems.

Tip: *Refer to the annexure on Problem types in order make sure learners are introduced to a variety of problems, both routine and non-routine. Learners need to solve different problems regularly because different problems require different solution strategies. Individual skills and interests vary, and so what may be a problem for one learner will not be a problem for another learner.*	
Assessment	**Formal: Recorded Assessment Task 1:** During the whole class and group teaching activities as indicated, rate the learners against the following milestones, recording specific problems : • Counts out objects to 20 • Counts to 50 on abacus and number line/number square • Identifies odd and even numbers • Copies simple number sequences to 10 • Makes and describes 3-D objects and 2D shapes by size (big or small)

SUGGESTED ASSESSMENT TASKS : GRADE 1 NUMERACY SECOND TERM

TASK 1 : WEEK 4

COMPONENT	MILESTONES	WK	TASKS
COUNTING AND MENTAL/NUMBER SENSE	• Counts out objects to 20 • Counts to 50 on abacus and number line/number square • Copies simple number sequences to 10 • Makes and describes 3-D objects and 2D shapes by size (big or small)	4	• Use the daily oral counting to assess learners' ability to count to 50 using an abacus and number line. • Use the practical activity on Day 1 to observe learners' understanding of patterns. • Use the oral activities on Day 2 and 3 and the practical activity on Day 5 to assess learners' knowledge of the properties of 2-D shapes and 3-D objects. • Use the practical activities on Day 3 and 4 and the written activity on Day 4 to observe learners ability to sequence numbers.
PROBLEM SOLVING	• Counts out objects to 20. • Identifies odd and even numbers	4	• During Group teaching observe learners ability to count out 20 objects correctly and to identify odd and even numbers.

SECOND TERM: WEEK 5 OVERVIEW

<table>
<tr><th>COMPONENT</th><th>MILESTONES</th><th>DAY 1</th><th>DAY 2</th><th>DAY 3</th><th>DAY 4</th><th>DAY 5</th></tr>
<tr><td>COUNTING

LO 1 AS 1,2</td><td>• Says number names in sequence (rote counting)
• Counts out objects to 10
• Counts to 50 reliably e.g. using a number line, abacus, etc.
• Counts in multiples of 2 using concrete objects</td><td colspan="5">Daily:
• Rote count from 1-100
• Count in 1s up to 50 while pointing on a number line/ number grid or count using an abacus.
• Ask questions like which number is before __; after _____; between
• Count in 2s from 1-10 by counting body parts e.g. 2 eyes</td></tr>
<tr><td rowspan="3">NUMBER SENSE AND MENTAL

LO1 AS 3,4,7,9
LO 2 AS 1,2
LO4 AS 5</td><td rowspan="3">• Identifies number concept before and after
• Writes and reads number symbols from 1-20
• Writes and reads number names from 1-10
• Copies simple patterns using physical objects and drawings
• Copies simple number sequences to 10
• Writes a number sentence correctly using +, - and =
• Compare 3D objects by measuring using non-standard measures e.g. how many cups fill a bottle with water (capacity)</td><td colspan="5">Daily:
• Revision of numbers 1 to 9
• Revision of order of numbers
• Numbers and number names up to 9</td></tr>
<tr><td>DAY 1</td><td>DAY 2</td><td>DAY 3</td><td>DAY 4</td><td>DAY 5</td></tr>
<tr><td>Patterns objects

Sequence numbers

Knows, reads and writes number names and symbols for10</td><td>Sequence numbers

Knows, reads and writes number names and symbols for10

Capacity</td><td>Patterns drawings

Sequence numbers

Knows, reads and writes number names and symbols for10</td><td>Sequence numbers

Knows, reads and writes number names and symbols for10

Capacity</td><td rowspan="2">WHOLE CLASS ACTIVITY

Capacity</td></tr>
<tr><td>GROUP TEACHING

LO 1
AS6,7,10,11</td><td>• Estimates up to 10 objects
• Identifies odd and even numbers
• Solves and explains solutions to practical problems that involve equal sharing and grouping with numbers to at least 20 by using concrete objects and drawings
• Solves all types of problems, and explains solutions, using concrete objects and drawings using numbers to 20</td><td colspan="4">Ask each group the same problems. They can be solved using counters, drawings, etc.
Number range: Group 1 works in 1-34; Group 2 works in 1-20; Group 3 works in 1-15</td></tr>
<tr><td>Group 1 and 3 work with teacher, one group at a time.
Ask one doubling and one halving word problem.
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Ask one doubling and one halving word problem.
Group 1 works on its own.</td><td>Groups 1 and 3 work with teacher, one group at a time.
Ask one addition and one sharing word problem.
Group 2 works on its own.</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one addition and one sharing word problem.
Group 1 works on its own.</td></tr>
</table>

WEEK 5: WHOLE CLASS

WEEK 5	WHOLE CLASS COMPONENT (Counting and Mental/Number sense)

Notes to the teacher:

- Counting at the beginning of the day helps learners develop a sense of numbers. Every day you will let your learners do rote counting (to develop the vocabulary of numbers) as well as rational counting (thinking what they are doing) activities. Counting at the beginning of the lesson is done with the whole class every day.
- By now you would have made sufficient resources that would assist you with these activities. Get learners to bring objects that could be used for counting. Store your resources for future use. Have a good retrieval system. Work with other teachers to make resources.
- COLLECT CONTAINERS OF DIFFERENT SIZES FOR LESSONS ON CAPACITY.
- Daily activities indicate activities that should be done every day. The specific concepts being developed are indicated every day e.g. Day 1.
- You need to make sure you do constant revision of work done to date. This forms part of the incidental learning that takes place in a classroom e.g. ask which day it is, what day was yesterday, what day will tomorrow be, etc.

DAILY ACTIVITIES

COUNTING AND MENTAL/NUMBER SENSE

Daily Activities.(to take no more than 10 minutes)

These must be done daily:

- Learners rote count to at least 100 and further if they can. This should be fun for the learners so make sure you use a variety of strategies when doing rote counting.
- Point to the numbers on a number line or a number grid as learners count to 50. At the same time let a learner push the same number of beads across on the abacus.

Choose from the following to make up the 10 minutes:

- Each learner uses his/her own number line and places a counter on all the even numbers between 1 and 10. Let them count the even numbers by pointing to the numbers with counters on, and then count the odd numbers pointing to the numbers without counters.
- Ask learners to count all the eyes, ears, legs, hands, etc in their group. Each group counts a different body part. Encourage them to count in 2s if they can. Ask questions such as:
  - How many eyes/ears/hands etc. in your group?
  - How many learners in your group?
  - If there are 8 learners and they have 16 eyes/ears/hands, etc., how many eyes/ears/hands, etc. will there be if there are 9 learners in your group?
- Revise numbers 1-9 by giving the number and number name cards to different learners. As you call out a number the learners holding that number card and number name card come and stand in the front of the class, one behind the other. Call out the numbers randomly till all the numbers are in a line. Ask some of the learners without cards to come and order the numbers and number names from 1 to 9.

DAY 1 (to take no more than 30 minutes)

- Ask learners to show you 5 fingers, 2 fingers, 7 fingers, 9 fingers, counting the number of fingers each time. Now ask them to show you 10 fingers. Count them. How many fingers on each hand.

- Learners close their eyes and listen to the number of taps/claps/stamps/clicks etc. that they hear. They hold up the corresponding number of fingers e.g. stamp your foot ten times – learners hold up 10 fingers and say 10. Get the learners to clap 10 times, click their fingers 10 times, etc.
- Ask the learners to get out their counting boxes and count out 9 objects. Ask a learner to point out the number 9 on the chart. Now tell the learners to count out 1 more object. How many objects do they have now? (10) Can they show you 10 fingers? Ask if anyone can show you the number 10 on the number line or number grid. Demonstrate on the board how a 10 is written. Let the learners write the number 10 in the air using their fingers, trace over the 10 on the number line, etc.
  Tip: *Put up the number 10 chart next to the other 9 number charts.*
- This activity can be done whilst the learners are seated in groups. Give each group some toy cars, tea-set cups and saucers, building blocks, some small stuffed toys etc. Get the learners to use the objects to create their own patterns e.g. cup, saucer, cup, saucer or car, stuffed toy, car, stuffed toy.

DAY 2 (to take no more than 30 minutes)

- Get the learners to read the numbers on the number charts to 10. Ask the learners to make the number 10 in the air with their fingers, on their table tops, on their hand, etc. Point to a number chart and get the learners to count out the pictures.
- Put a pile of counters inn the middle of the group and, working in pairs, ask them to count out 10 counters.
  Tip: *Ask if anyone knows how many counters their group has counted out. Some learners may be able to tell you this.*
- Tell the learners to look at their number lines and ask them to put a counter on 10. Ask questions such as:
  - What comes before 10/after10?
  - What is 2 more than 10/2 less than 10?
  - What numbers does 10 come between? Etc.
- Take the class outside as well as the different types of containers – those that can hold water e.g. jugs, cups, tumblers/glasses, bottles, bowls and buckets and those that cannot hold water e.g. colanders, strainers, sieves and funnels. Group the learners and make sure each group has a bucket of water and a few containers that can and cannot hold water. Learners must fill their containers and discuss what happens. After this, learners must water the garden so that they do not waste the water. Take the learners back inside the class and ask questions e.g. which containers can hold water? Which containers cannot hold water. Ask different learners to come and draw the pictures in the correct column on a chart e.g.

Containers that hold water	Containers that do not hold water

DAY 3 (to take no more than 30 minutes)

- Tell each group to make a pile of 10 of the same objects on their table e.g. pencils, rulers, books, etc. Now move each group to a different table and ask them to count the objects to check that there are 10.
- Settle learners back in their own group and tell them to count out 10 counters from the counting containers. Encourage them to make various patterns with their 10 counters, e.g. 5 and 5, 3 and 7, etc. Ask if anyone would like to write their pattern on the board as a number sentence.
- Give each learner a sheet of paper and ask them to draw a pattern using shapes they know, e.g. circle, circle, triangle, square, square, square, circle, circle, triangle, square, square, square. After the learners complete the row of patterns they must write numbers under the pattern they have made e.g. 1 for the circles, 2 for the triangle and 3 for the squares.

DAY 4 (to take no more than 30 minutes)

- Have picture cards (numbers 1-10) placed randomly on the chalkboard e.g. card with ten pictures. Get learners to rearrange them in the correct order. Use the same picture cards and place them on the board once again. Give a few learners the number cards that you made for previous lessons. Let them use these cards and match them with the correct picture card.
- Get learners to work in pairs. Hand out number cards from 0 to 10 to each pair. Learners must first sequence the even numbers from 0 to 10. Walk around and observe. Assist wherever necessary. Then ask the learners to sequence the odd numbers from 0 to 10.
- Make sure everyone can see what you are doing and then show them 3 glasses and 2 bottles – use two litre plastic bottles. Fill both bottles with water and then add red food colouring to one bottle of water. Tell the learners that we need to fill one glass with water e.g. use the red coloured water – fill the glass to the brim. We need to half-fill the second glass e.g. with clear water and we are going to leave the third glass empty. Ask questions e.g. which glass is full? Which glass is empty? Which glass in half-full? Empty the glasses and get a volunteer to fill one glass and a second volunteer to half-fill the second glass. All the time discuss what is happening. Ask the same questions again. Repeat the activity a few times, giving different learners a chance to pour the water into the glasses.

DAY 5 (whole lesson)

- Take the class outside and seat the learners in a circle around you. Have quite a few different size glasses or cups, a small dish, a big dish, a jug, a pot, and a bucket of water. Take out the jug and a small glass. Ask the learners to estimate how many glasses of water will fill the jug. After they estimate, ask them how this can be proven. Some of the learners will suggest that you fill the glass, pour the water into the jug and count. Do this, then compare the learners' estimation with the actual number of glasses.
- Put the learners into groups. Get them to choose any large container they wish to fill and the size of glass or cup they wish to use to fill the container with water. Get them to record their findings on a piece of paper as this will be used later in the classroom. After learners have

- completed this activity, get them to water the garden and return to their classroom. Have a graph ready and record the learners' findings on the graph by colouring in the number of squares as indicated by the learners e.g. we used 3 glasses to fill the small dish. This graph can be used for a future activity. E.g.

Glasses					
	5				
	4				
	3				
	2				
	1				
		Small dish	Big dish	Jug	Pot

ASSESSMENT	**Formal :** Formal, recorded Assessment **Informal:** Unrecorded assessment of learners oral responses and ability to participate.

WEEK 5 : GROUP TEACHING

Week 5	GROUP TEACHING COMPONENT (Concept Development and Problem Solving)

Notes to teacher:

- By now you have established 3 groups. Every day you will work with 2 different groups in a small group situation e.g. sitting on the mat together. During this time you will do activities to develop number concepts at the level of the learners in the group. A number of types of activities are provided and you should do ALL the types each time you work with that group; but remember, although examples are provided, you should look for your own examples that will suit your learners.
- You will also give the learners at least 2 different word problems to solve every time you work with them. **It is through solving problems and discussing the solutions that learners develop a sense of number, an understanding of the operations and the ability to reflect on their thinking.**
- While you are working with a group, the rest of the class will be working independently. You need to provide them with a variety of activities which reinforce and consolidate concepts already learnt. Try to vary the activities e.g. giving a practical activity (counting counters in counting bags), a written activity (filling in numbers, sequencing, etc.) and a fun activity (dot-to-dot pictures, puzzles, etc.)
- Make sure learners complete the independent work set for the day.

DAILY ACTIVITIES

Examples of activities to be done independently. *Work from a Learner's Book, worksheets, work cards, work charts etc.*

- Write the numbers 1 to 10 in their books, drawing the correct number of pictures next to each number and writing the correct word.
- Complete a sequencing activity e.g. fill in the missing numbers on a number line, dot-to-dot etc.
- Fill in numbers on a number line or number square.
- Provide cards with a different number of pictures on each card. Learners count the number of pictures, then write the number in their books and draw the pictures.
- Make work cards e.g. draw 1 more or draw 1 less and write the number

Draw 1 less	Number	Draw 1 more
	3	
	7	
	5	

- Design activities to develop an understanding of ordinal numbers
- Work cards with addition and subtraction number sentences 1-10

1+1=	1-1=
2+2=	2-1=
3+1=	3-1=
Etc.	

1+2=	
2+2=	2-2=
3+2=	3-2=
Etc.	

Working with the group

GROUP 1

*On **Monday** and **Wednesday** this group works with the teacher for 20 minutes*.

- Spread 15 beads on a tray. Allow the learners a moment to look at the number of beads, then cover them. Ask the learners to estimate how many beads are there are. Get each learner to write his/her answer on a small piece of paper. Get one learner to count out the beads and ask the others to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Let learners count out 20 objects. Now write the number 8 on a piece of paper and put it in front of the group. Ask the learners what they can tell you about the number 8 using their counters to show you e.g. 4 plus 4 makes 8, 5 plus 3 makes 8, 10 take away 2 makes 8, etc. Encourage them to use all 20 counters, but the answer must always be 8.
- Give the group little strips of cards with different number sentences written on as well as cards with single digit numbers.

6+1=	7	5+1=	6	4+1=	3

They must work together and match the single digit numbers to make the correct number sentence. Make sure that learners understand that the sign = does not mean the answer, but that it means both sides are equal to each other. Once learners have done this and you have checked that it is correct, ask them to place the cards in order so that the answers create a number sequence e.g. 1+4=5; 2+4=6; 3+4=7; 4+4=8. They must look at the answers and place the cards from the smallest number to the biggest number.

***Tip**: At this stage it will be easier to give all addition number sentences or all subtraction number sentences. Later on you can repeat this activity and then muddle the addition and subtraction number sentences in one group. You can also have cards where the = sign is in a different place*

e.g.

6+1=	7	5+1=	6	4+1=	3

- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 34. Let each learner tell the group how s/he solved the problem. On Monday the word problems will be one doubling and one halving and on Wednesday you will ask one addition and one sharing word problems. Ask different learners to tell the group how they solved the problem as it is important that learners reflect on what they have done.

  ***Tip**: You are introducing the concept of doubling and halving in context by using the words in a problem situation, e.g. Last week baby had 4 teeth. Now he has double the number of teeth. How many teeth does baby have now? Mom made 10 sandwiches. Dad ate half of them. How many did Dad eat?*

GROUP 2

*On **Tuesday** and **Thursday** this group works with the teacher for 20 minutes*.

- Spread 10 beads on a tray. Allow the learners a moment to look at the number of beads, then cover them. Ask the learners to estimate how many beads are there are. Get each learner to write his/her answer on a small piece of paper. Get one learner to count out the beads and ask the others to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Let learners count out 20 objects. Now roll a dice and using the number shown (e.g. 5), ask the learners what they can tell you about the number 5. Encourage them to use their counters to show you e.g. 4 plus 1 makes 5, 2 plus 3 makes 5, 6 take away 1 makes 5, etc. Learners may use any numbers, but the answer must always be 5.
- This is a practical activity and learners can use the counters they have counted out. Have a chart prepared with a few number sentences (addition and subtraction up to 10). Get the learners to read the first number sentence. Check if they can recognize the sign and know the correct name of the sign. Learners must then put out the counters for the number sentence e.g. 7+3=? i.e. learners will put out 7 and 3 counters. Ask them what they have to do. If they are not sure, put it into words such as *there are 7 apples and Mom buys 3 more. How many apples are there now?* Learners then add the 7 and 3 counters to get the answer. Do 2 more number sentences.

  ***Tip:** Make sure the learners understand that the = sign does not mean **the answer,** but means that what is on each side of the sign means the same e.g. 10 = 6+4 or 3+7=6+4*
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 20. Let each learner tell the group how s/he solved the problem. On Tuesday the word problems will be one doubling and one halving and on Thursday you will ask one addition and one sharing problem.

  ***Tip**: You are introducing the concept of doubling and halving in context by using the words in a problem situation , e.g. Last week baby had 3 teeth. Now he has double the number of teeth. How many teeth does baby have now? Mom made 6 hamburgers. Dad ate half of them. How many did Dad eat?*

GROUP 3

*This group works with the teacher **every day** for 20 minutes.*

- Put 6 cubes on the mat, give learners a few moments to look at them then cover the cubes. Ask the learners to estimate how many cubes there are. Get each learner to write his/her answer on a small piece of paper. Ask one learner to count out the beads and ask the others to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Put a pile of counters in front of the group and tell them to each count out 20. Now ask them to count out 9 counters. Ask questions such as *if you add 1 more counter/take 1 counter away, how many will there be?* Use this to consolidate understanding of the value of 9.

• Do some addition and subtraction number sentences up to 9, using the counters. Tell them make patterns with their 9 counters e.g. 5 and 4, 6 and 3, etc. Write up the number sentences each time and let the learners read them. • Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 15. Let each learner tell the group how s/he solved the problem. On Monday and Tuesday the word problems will be one doubling and one halving and on Wednesday and Thursday you will ask one addition and one sharing problem. ***Tip**: You are introducing the concept of doubling and halving in context by using the words in a problem situation, e.g. Last week baby had 3 teeth. Now he has double the number of teeth. How many teeth does baby have now? Mom made 6 hamburgers. Dad ate half of them. How many did Dad eat?*	
Assessment	**Formal :** No formal, recorded Assessment **Informal :** Unrecorded assessment of learners oral responses and ability to participate

SECOND TERM: WEEK 6 OVERVIEW

<table>
<tr><th>COMPONENT</th><th>MILESTONES</th><th>DAY 1</th><th>DAY 2</th><th>DAY 3</th><th>DAY 4</th><th>DAY 5</th></tr>
<tr><td>COUNTING

LO 1 AS 1,2</td><td>• Says the number names in sequence (rote counting)
• Counts out objects to 20
• Counts to 50 reliably e.g. using a number line, abacus, etc.
• Counts in multiples of 2 using concrete objects</td><td colspan="5">Daily:
• Rote count from 1-100
• Count in 1s up to 50 while pointing on a number line/ number grid or count using an abacus. Count forwards and backwards up to 50
• Count in 2s from 1-10 using concrete objects</td></tr>
<tr><td rowspan="3">NUMBER SENSE AND MENTAL

LO1 AS 3,4,7
LO 2 AS 1,2
LO4 AS 5
LO5 AS1</td><td rowspan="3">• Identifies number concept before and after
• Writes and reads number symbols from 1-20
• Writes and reads number names from 1-10
• Copies simple patterns using physical objects and drawings
• Copies simple number sequences
• Writes a number sentence correctly using +, - and =
• Compare 3D objects by measuring using non-standard measures e.g. how many cups fill a bottle with water (capacity)
• Collects, sorts, explains and draws a collection of objects according to 1 attribute.</td><td colspan="5">Daily:
• Revision of numbers 1 to 10
• Revision of ordering numbers from smallest to biggest.
• Numbers and number names up to 10</td></tr>
<tr><td>DAY 1</td><td>DAY 2</td><td>DAY 3</td><td>DAY 4</td><td>DAY 5</td></tr>
<tr><td>Patterns objects

Knows, reads and writes number names and symbols form 1 to 10.</td><td>Sequence numbers

Knows, reads and writes number names and symbols form 1 to 10.

Capacity</td><td>Patterns drawings

Knows, reads and writes number names and symbols form 1 to 10.

Collects data</td><td>Knows, reads and writes number names and symbols form 1 to 10.

Capacity</td><td rowspan="2">WHOLE CLASS ACTIVITY

Use capacity to collect and display data</td></tr>
<tr><td>GROUP TEACHING

LO 1
AS7,9,10,11</td><td>• Estimates up to 10 objects
• Identifies odd and even numbers
• Solves practical problems involving sharing and grouping.
• Solves problems, and explains solutions, using concrete objects and drawings using numbers to 20</td><td colspan="4">Ask each group the same problems. They can be solved using counters, drawings, etc.
Number range: Group 1 works in 1-34; Group 2 works in 1-20; Group 3 works in 1-15</td></tr>
<tr><td></td><td>Group 1 and 3 work with teacher, one group at a time. .
Ask one grouping and one sharing word problem.
Group 2 works on its own</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one grouping and one sharing word problem.
Group 1 works on its own</td><td>Groups 1 and 3 work with teacher, one group at a time.
Ask one addition and one doubling word problem.
Group 2 works on its own</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one addition and one doubling word problem.
Group 1 works on its own</td></tr>
</table>

WEEK 6 : WHOLE CLASS

WEEK 6	WHOLE CLASS COMPONENT (Counting and Mental/Number sense)

Notes to the teacher:

- Counting at the beginning of the day helps learners focus on numbers. Every day you will let your learners do rote counting (to develop the vocabulary of numbers) as well as rational counting (thinking what they are doing) activities. Counting at the beginning of the lesson is done with the whole class every day.
- By now you would have made sufficient resources that would assist you with these activities. Get learners to bring objects that could be used for counting. Store your resources for future use. Have a good retrieval system. Work with other teachers to make resources. COLLECT CONTAINERS OF DIFFERENT SIZES FOR LESSONS ON CAPACITY.
- Delegate duties to responsible learners to help you hand out resources like counters, puzzles etc. to the learners.
- Daily activities indicate activities that should be done every day. The specific concepts being developed are indicated every day e.g. Day 1.

DAILY ACTIVITIES

COUNTING AND MENTAL/NUMBER SENSE

Daily Activities.(to take no more than 10 minutes)

These must be done daily:

- Learners rote count to at least 100 and further if they can. This should be fun for the learners so make sure you use a variety of strategies when doing rote counting.
- Point to the numbers on a number line or a number grid as learners count to 50. At the same time let a learner push the same number of beads across on the abacus.

Choose from the following to make up the 10 minutes:

- Play “I spy with my little eye” e.g.
  - I spy with my little eye a number that comes before 2. What is it?
  - I spy with my little eye a number that comes after 6. What is it?
  - I spy with my little eye a number that is more than 4 but less than 6. What is it? And so on.
- Using a number grid to 100 ask different learners to come and point to numbers such as:
  - The number that is 2 more than 12.
  - The number that is between 16 and 18.
  - The number that is 1 less than 22.
  - Any odd number more than 5.
  - Any even number less than 30, etc.

  Tip: *You can do the same activity if all the learners have their own number grid. Instead of pointing to the numbers they can colour them in.*
- Put a pile of counters in the middle of each group and ask learners to count out 10 counters. Now let them arrange them in groups of 2. Choose different learners to count in 2s while pointing to the groups in front of them. Ask questions such as : *how many groups of 2 are there? How many counters are there altogether? If 5 groups of 2 are 10, how much do you think 4 (or 6) groups of 2 will be?*
- Revise numbers and number names 1-10 from the number charts.
- Call out 10 learners and let them line up from shortest to tallest. Ask who is first, second, third, etc. Let the line now face a different direction so that a different learner is first, and repeat the questions.

DAY 1 (to take no more than 30 minutes)

- You need at least 10 to 12 of each shape (circle, triangle, square, rectangle) about 8 cm across in size and also 10 to 12 objects, e.g. shells, beads, cubes, bottle tops, matchsticks. Learners can be seated in groups. Ask them to start making a pattern with their shapes e.g. triangle, triangle, circle, circle, rectangle, triangle, triangle, circle, circle, rectangle. Now get learners to place an object on each shape e.g. shells on the triangles, bottle tops on the circles and cubes on the rectangles. Ask them to say the pattern aloud e.g. shell, shell, bottle top, bottle top, cube, shell, shell, bottle top, bottle top, cube. Encourage them to make other patterns and place the objects on top. Then ask them to describe their pattern, first using the names of the shapes, then of the objects.
- Get the learners to work in pairs. Hand out sets of number cards 1-10 and a counting box with counters to each pair. They must work together and sequence the numbers from 0-10 and then from 10-0 on their desks/tables. Then tell them to point/touch e.g. number 5 and then count out 5 counters from their counting box. Do a few numbers. Walk around and observe.
- Revise the numbers on your counting charts that you have put up.

DAY 2 (to take no more than 30 minutes)

- Tell the learners to look at their number lines 1-10. Get the learners to read the numbers 1-10 forwards and then backwards. Ask the learners questions such as e.g. Point to number 3. Which number is before number 3? Which number is after number 3? 3 is between which two numbers? Read the odd numbers. Read the even numbers.
  Tip: *If you have questions prepared, it prevents you from trying to think of things on the spur of the moment to ask the learners. This also shows your preparedness and thus prevents discipline problems.*
- Learners can work in pairs. Get the learners to take out their counting boxes and make groups of twos. Give them sets of number cards 1-10. After they have made the groups of two, they must place the number card under each group e.g. number 2 card under the first group of 2, number 4 card under the second group of 2 and so on. Learners must then count in twos up to 10.
- Now you need the different shapes of 1 litre and 2 litre containers (such as a bottle, a jug, a milk carton, etc.) and a glass or a cup. Get learners to observe two 1 litre containers of different shapes e.g. one can be thin and long and the other short and wide. Ask the learners if both these containers will hold the same amount of water. Listen to their answers and then ask them how many cups of water do they think each container can hold. Give as many learners as possible a chance to answer. Now pour cups of water from your bucket into the first container and count. Record the number on the board. Then pour cups of water into the second container and count. Amazing! What did they discover? Both the containers hold the same amount of water. Repeat using the 2 litre containers.

DAY 3 (to take no more than 30 minutes)

- Give each group a pack of books (or pencils, rulers, bread tags, etc.) and pieces of paper. Tell the learners that they are to count out books and put them in piles from 1 to 10. Learners write down the number of books in the pile and place it on top of each pack. Ask questions such as: *how many books did you add to the pile of 9 to make 10*? *How many books did you add to the pile of 5 to make 6? Etc.*
- Ask learners to count out 10 counters from the counting containers. Encourage them to make various patterns with their 10 counters, e.g. 6 and 4, 3 and 7, etc. and to tell you the number sentence they have made.
- Give each learner a worksheet with a picture of a T-shirt/skirt/socks etc. Different patterns have been started and learners must complete the patterns working from left to right.
  Tip: *Use patterns that learners are familiar with, specially those done during handwriting e.g. zig-zag, wavy lines, etc*
- Tell the learners that they have been very good and you are going to let them decide on a special activity. Ask them whether they would prefer to play a game outside or paint a pretty picture. Have two cards prepared - one for a game and one for painting. Place these cards on the board. Learners decide what they want to do and then stand in a line facing the activity they would like to do. Ask the learners which activity seems more popular. Count the learners for each activity and let the learners tell you which is more popular. Give each learner a counting cube (unifix block) and some prestik. Place a big grid that you prepared on a chart on the board. Learners must stick their cube on a block next to their choice. Once all the learners have indicated their choice, discuss which is more popular. Ask which was easier to see – the lines of learners or the information on a grid?

Game	X	X	X	X					
Paints	X	X	X	X	X	X			

DAY 4 (to take no more than 30 minutes)

- Have picture cards (numbers 1-10) placed randomly on the chalkboard e.g. card with nine pictures. Get learners to rearrange them in the correct order. Use the same picture cards and place them on the board once again. Give a few learners the number cards that you made for a previous lesson. Let them use these cards and match them with the correct picture card.
- Get learners to work in pairs. Hand out number cards from 0 to 10 to each pair. Learners must first sequence the even numbers from 0 to 10. Walk around and observe. Assist wherever necessary. Then ask the learners to sequence the odd and even numbers from 0 to 10.
  Tip: *If you do not have number cards, let learners use a number line and place a counter on the odd numbers, then on the even numbers.*
- Make sure everyone can see what you are doing, then show the class a jug and a few glasses or cool drink bottles. Pour some water into the 2 glasses and place the third empty glass next to the two glasses. Now ask the learners how much water there would be in the

third glass if the water from the other 2 glasses were poured into the third. You need to mark the level they point to with a felt tip pen. Now pour the water from the 2 glasses into the third glass and check with the learners if the line is in the correct place. The learners need to discover the actual level and the estimated level. They need to find out if it is more or less. Repeat this a few times, using different levels of water.

Tip**: If possible, have enough glasses for learners to experiment with this themselves when working with a partner. **Just watching you is NOT active learning!

DAY 5 (the whole lesson)

- Give the learners a large sheet of paper and a template of a glass/tumbler/cup. Tell them trace around the template and make 3 glasses/tumblers/cups on their paper. They are to illustrate the concepts of full, half-full and empty and write the words under the correct glass.
- Take out the graph that you completed last week. Work out with the learners the number of glasses that filled each container. Discuss the findings with the learners. Working in groups of 4, give each group a paper cup and a bottle top or table spoon. They take turns to find out how many bottle tops/tablespoons of water will fill the cup. As they finish doing it, they record the number on a graph by colouring in the number of squares.

Names	Number of bottle tops used to fill the cup								
Sipho									
Mary									
Fred									
Lungile									

ASSESSMENT	**Formal :** Formal, recorded Assessment **Informal:** Unrecorded assessment of learners oral responses and ability to participate.

WEEK 6 : GROUP TEACHING

Week 6	GROUP TEACHING COMPONENT (Concept Development and Problem Solving)

Notes to teacher:

- By now you have established 3 groups. Every day you will work with 2 different groups in a small group situation e.g. sitting on the mat together. During this time you will do activities to develop number concepts at the level of the learners in the group. A number of types of activities are provided and you should do ALL the types each time you work with that group; but remember, although examples are provided, you should look for your own examples that will suit your learners.
- You will also give the learners at least 2 different word problems to solve every time you work with them. *It is through solving problems that learners build up their own understanding of numbers, computations, fractions etc. Therefore you do not first teach, for example, addition and subtraction and then expect learners to use this knowledge to solve problems. Learners rather use the solving of problems to develop an understanding of the various mathematical concepts.*
- While you are working with a group, the rest of the class will be working independently. You need to provide them with a variety of activities which reinforce and consolidate concepts already learnt. Try to vary the activities e.g. giving a practical activity (counting counters in counting bags), a written activity (filling in numbers, sequencing, etc.) and a fun activity (dot-to-dot pictures, puzzles, etc.)
- Learners must complete all the work set every day. Give two activities which must be done, and 2 more which they can choose from when they have finished.

DAILY ACTIVITIES

Examples of activities to be done independently. *Work from a Learner's Book, worksheets, work cards, work charts etc.*

Groups 1 and 2

- Sequencing numbers/Fill in the missing numbers 1-10.
- Activities for before/after/between/more/less.
- Odd and even numbers.
- Addition and subtraction up to 10.
- Patterns drawings.
- Number value 1-10.
- Ordinal value 1-10.

Group 3

- Write the numbers 1 to 9 in their books, drawing the correct number of pictures next to each number and writing the correct word.
- Complete a sequencing activity e.g. fill in the missing numbers on a number line, dot-to-dot etc.
- Fill in numbers on a number line or number square.
- Give the learners number cards 1 to 9. They arrange them from smallest to biggest then copy the numbers into their books.
- Provide cards with a different number of pictures on each card. Learners count the number of pictures, then write the number in their books and draw the pictures.
- Provide worksheets where learners have to match the objects on one side with the objects on the other (one-to-one correspondence).

Working with the group

GROUP 1

*On **Monday** and **Wednesday** this group works with the teacher for 20 minutes*.

- Have a cut–out of a butterfly. Stick 15 spots on the wings using prestik. Ask the learners to estimate how many spots are there on the butterfly. Get each learner to write his/her answer on a small piece of paper. Let one learner count out the spots and ask the others to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?

  Tip: *You can use prestik to stick the spots because you can remove or add more spots for different activities on estimation.*
- Depending on the ability of your learners, this activity can be completed under your direct supervision or given as an independent activity. Have work charts/worksheets or work cards prepared for this activity. The learners can complete the addition and subtraction (1-10) number sentences e.g. 2+5=5+? 10□4=? Learners can draw pictures to compete their work.
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 34. Let each learner tell the group how s/he solved the problem. On Monday the word problems will be one grouping and one sharing and on Wednesday you will ask one addition and one doubling word problem.

  Tip: *Refer to the annexure on Problem types in order to get the learners to solve different problems. Word problems enhance the learner's ability to make decisions, plan and implement strategies, and evaluate the effectiveness of these strategies in solving the original problem. This builds self-esteem and confidence.*

GROUP 2

*On **Tuesday** and **Thursday** this group works with the teacher for 20 minutes*.

- Have a cut –out of a butterfly. Stick on 10 spots using prestik. Ask the learners to estimate how many spots are there on the butterfly. Get each learner to write his/her answer on a small piece of paper. Let one learner count out the spots and ask the others to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?

  Tip: *You can use prestik to stick the spots because you can remove or add more spots for different activities on estimation.*
- Depending on the ability of your learners, this activity can be completed under your direct supervision or given as an independent activity. Have work charts/worksheets or work cards prepared for this activity. The learners can complete the addition and subtraction (1-10) number sentences e.g. 9=4+? 10□8=? Learners can use objects to compete their work.

  Tip: *Make sure the learners understand that the = sign does not mean **the answer,** but means that what is on each side of the sign means the same e.g. 10 = 6+4 or 5+5=8+2*

- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 20. Let each learner tell the group how s/he solved the problem. On Tuesday the word problems will be one grouping and one sharing and on Thursday you will ask one addition and one doubling problem.
  Tip: *Refer to the annexure on Problem types in order to get the learners to solve different problems. Word problems enhance the learner's ability to make decisions, plan and implement strategies, and evaluate the effectiveness of these strategies in solving the original problem. This builds self-esteem and confidence.*

GROUP 3

This group works with the teacher ***every day*** *for 20 minutes.*

- Have a cut –out of a butterfly. Stick on 10 spots using prestik. Ask the learners to estimate how many spots are there on the butterfly. Get each learner to write his/her answer on a small piece of paper. Let one learner count out the spots and ask the others to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
  Tip: *You can use prestik to stick the spots because you can remove or add more spots for different activities on estimation.*
- Give the learners a bag of objects e.g. cubes, beads, matchsticks, plastic shapes. Tell them to each count out 10 objects. Ask if each learner has the same number of counters – are all the piles of 10 the same? Ask them to write the number 10 in their books or on pieces of paper, to show you the number on the number grid and to show 10 on an abacus.
- Use dice and let each learner take a turn to roll the die. Each time everyone writes down the number shown e.g. 5 and then adds one and writes the answer e.g. 5+1=6. You can repeat the activity, but this time taking 1 away and writing a subtraction number sentence.
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 15. Let each learner tell the group how s/he solved the problem. On Monday and Tuesday the word problems will be one grouping and one sharing and on Wednesday and Thursday you will ask one addition and one doubling problem.
  Tip*: These learners are just as capable of solving word problems as any learner in the other groups. The difference is that some of the learners in this group need more time to think. Do not rush them. It is better for learners to solve only one problem that requires a lot of thinking rather than 4 problems to which they instantly know the answer.*

Assessment	**Formal :** No formal, recorded Assessment **Informal :** Unrecorded assessment of learners oral responses and ability to participate

SECOND TERM: WEEK 7 OVERVIEW

<table>
<tr><th>COMPONENT</th><th>MILESTONES</th><th>DAY 1</th><th>DAY 2</th><th>DAY 3</th><th>DAY 4</th><th>DAY 5</th></tr>
<tr><td>COUNTING

LO 1 AS 1,2</td><td>• Says number names in sequence (rote counting)
• Counts out objects to 20
• Counts to 50 reliable e.g. using a number line, abacus, etc.
• Counts in multiples of 2 using concrete objects</td><td colspan="5">Daily:
• Rote count from 1-100
• Count in 1s from 9 to 34 while pointing on a number line/ number grid or count using an abacus.
• Count forwards and backwards up to 34
• Count in 2s from 1-10 using concrete objects.</td></tr>
<tr><td rowspan="2">NUMBER SENSE AND MENTAL

LO1 AS 3,4,7
LO 2 AS 1, 2
LO4 AS 5
LO5 AS1,2,3</td><td rowspan="2">• Identifies number concepts before and after
• Writes and reads number symbols from 1-20
• Writes and reads number names from 1-10
• Orders more than 2 given numbers fro smallest to biggest
• Copies simple patterns using physical objects and drawings
• Copies simple number sequences
• Compare 3D objects by measuring using non-standard measures e.g. how many cups fill a bottle with water (capacity)
• Collects, sorts, explains and draws a collection of objects according to 1 attribute.</td><td colspan="5">Daily:
• Revision of numbers 1 to 10
• Revision of ordinal value 1st to 10th
• Numbers and number names up to 10</td></tr>
<tr><td>DAY 1

Patterns objects

Orders numbers 1to10

Knows, reads and writes number names and symbols from 1 to 10</td><td>DAY 2

Sequence numbers

Numbers, number names and value of numbers 1to10

Capacity</td><td>DAY 3

Patterns drawings

Addition and subtraction 1to10

Collects and displays data</td><td>DAY 4

Knows, reads and writes number names and symbols from 1 to10

Capacity</td><td>DAY 5

WHOLE CLASS ACTIVITY

Collects and displays data</td></tr>
<tr><td rowspan="2">GROUP TEACHING

LO 1 AS7,10,11</td><td rowspan="2">• Estimates up to 10 objects
• Identifies odd and even numbers
• Solves all types of problems, and explains solutions, using concrete objects and drawings using numbers to 20</td><td colspan="4">Ask each group the same problems. They can be solved using counters, drawings, etc.
Number range: Group 1 works in 1-34; Group 2 works in 1-20; Group 3 works in 1-15</td><td rowspan="2"></td></tr>
<tr><td>Group 1 and 3 work with teacher, one group at a time.
Ask one multiplication and one addition word problem.
Group 2 works on its own.</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one multiplication and one addition word problem.
Group 1 works on its own.</td><td>Groups 1 and 3 work with teacher, one group at a time.
Ask one subtraction and one halving word problem.
Group 2 works on its own.</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one subtraction and one halving word problem.
Group 1 works on its own.</td></tr>
</table>

WEEK 7 : WHOLE CLASS

WEEK 7	WHOLE CLASS COMPONENT (Counting and Mental/Number sense)

Notes to the teacher:

- Counting at the beginning of the day helps learners begin to develop the numerosity of numbers. Every day you will let your learners do rote counting (to develop the vocabulary of numbers) as well as rational counting (thinking what they are doing) activities. Counting at the beginning of the lesson is done with the whole class every day.
- By now you would have made sufficient resources that would assist you with these activities. Get learners to bring objects that could be used for counting. Store your resources for future use. Have a good retrieval system. Work with other teachers to make resources.
- Delegate duties to responsible learners to help you hand out resources like books, pencils, counters, puzzles etc.
- Daily activities indicate activities that should be done every day. The specific concepts being developed are indicated every day e.g. Day 1.
- **Assessment Task 2** will be completed this week.

DAILY ACTIVITIES

COUNTING AND MENTAL/NUMBER SENSE

Daily Activities.(to take no more than 10 minutes)

These must be done daily:

- Learners rote count to at least 100 and further if they can. This should be fun for the learners so make sure you use a variety of strategies when doing rote counting.
- Point to the numbers on a number line or a number grid as learners count to 50. At the same time let a learner push the same number of beads across on the abacus.
- Count backwards from 34 to1 using an abacus and an number line or number grid.

  Tip: *The learner could use the teacher's abacus if one is available.*

Choose from the following to make up the 10 minutes:

- Learners close their eyes and listen to the number of taps/claps/stamps/clicks etc. that they hear. They hold up the corresponding number of fingers E.g. stamp your foot ten times – learners hold up 10 fingers and say 10. Get the learners to clap 10 times, click their fingers 10 times, etc.

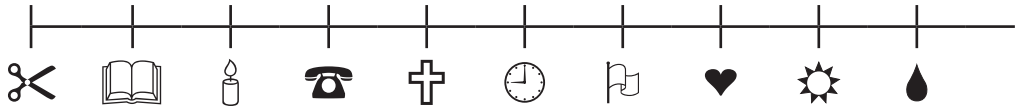
  Tip: *You can use your observations during this activity as part of Assessment Task 2. You will only need to record those learners who are not able to do the activity.*
- Write sets of numbers 1 to 10 on small pieces of paper or cardboard. Make enough sets so that everyone in the class gets a number. Give each learner a number then take them outside. Tell them to run around and when you blow the whistle (or clap your hands, or beat the drum, etc.) they must find at least one other learner with the same number. If you have an even number of learners, everyone should have a partner, but if they don't, discuss why not. Repeat the activity, but this time tell learners to find a partner whose number is either 1 more or 1 less than theirs i.e. a learner with 1 will find a partner with the number 2, 2 will find 3, etc. Learners will eventually form a group with the numbers 1 to 10. Tell learners to arrange themselves in order from 1 to 10.

  Tip*: Observe what the learners do that indicates their understanding of the relationship of the numbers 1 to 10 as well as their understanding of sequencing the numbers. Use this activity towards Assessment Task 2.*

- Learners count out the odd numbers or even numbers on their own number lines, putting a counter on the numbers as they say them.

DAY 1 (to take no more than 30 minutes)

- Make some play dough in different colours. Encourage learners to make their own objects which they will use to create a pattern.
- Give the learners their counting boxes. Place a number card on the board. Learners must count out the correct number of objects. Do the same for all the numbers from 1-10.
- Draw a line on the board with evenly spaced sections (like a number line but with no numbers). Put simple pictures at each section



Ask questions such as :

- What is first in the line?
- What is ninth in the line?
- Where is the heart in the line?
- Where is the clock in the line? Etc.

Give each learner a copy of the line. Do this as a whole class where you read the statement, learners write the missing ordinal number e.g.

- The ✂ is ……. (learners write 1st)
- The 🕮 is …….. (learners write 2nd) and so on.

Tip: Observe the learners as they write their response because this is one of the Assessment Task activities. Use pictures learners are familiar with e.g. star(1), flower(2), ice-cream cone(3), tree(4), boat(5), fish(6), triangle(7), ball(8), car(9), cat(10)

DAY 2 (to take no more than 30 minutes)

- Design a worksheet with two activities. The first has10 blocks and in each block are some pictures. Learners must count the pictures and write the number and the number name inside the correct block. The second activity also has 10 blocks with a number written in each block. Learners must recognize the number and draw the correct number of pictures in each block e.g.

Write the correct number and number name:

♥	💧💧💧	☺☺☺☺							

Draw the correct number of pictures in each block.

6	9	1	10						

***Tip**: Use this as one of the activities for Assessment Task 2.*

- Put the learners into groups of 4 and take them outside. Give each group a 2 litre container filled with water and some paper cups. Tell them to pour the water into the cups and count how many cups of water you would get from a 2 litre bottle. They must record their answers. Back in the classroom, compare the answers. They should all be the same if you have provided each group with the same size cups! Discuss why the number is the same, or similar.

DAY 3 (to take no more than 30 minutes)

- Give the learners sheets of paper and tell them to use their rulers and draw a line around all four sides, forming a border. Learners can then create their own patterns in the border. Use this paper later for an art lesson.
- Prepare a worksheet that can be used to assess addition and subtraction from 1-10 e.g.

Can you do these number sentences?

o o o o o	o o o ØØ
3 + 2 =	5 – 2 =
o o o o o o o	o o o ØØØ
4 + 2 =	6 – 3 =

Allow learners to use counters if they need them.

***Tip**: Use this activity as part of Assessment Task 2.*

DAY 4 (to take no more than 30 minutes)

- Write the numbers from 1 to 10 on pieces of paper (or use the cards you have made) and put them in a box. Call out 10 learners, letting each one take one number from the box and stand in a row (as they have been called) holding the numbers for the rest of the class to see. Let the class read the numbers in the order the learners are standing. Ask if the numbers are in the correct order from smallest to biggest – learners must re-arrange themselves so that the numbers are in the right order starting from 1 and ending with 10. Repeat the activity with other learners.
- Take the class outside and let them sit in a circle with you. Place a container e.g. plastic basin, cardboard box, etc. full of sand (sawdust, water, etc.) in front of you together with a number of other empty containers. Ask learners to predict which container will hold more/less than your container. Give different learners an opportunity to test their predictions. Then ask the learners to help you order the containers into three groups : those that hold less, those that hold about the same and those that hold more.

  ***Tip:** Observe learners as they participate and use this towards Assessment Task 2.*

DAY 5 (whole lesson)

- Give each group a pile of assorted objects e.g. buttons, beads, bread tags, bottle tops, toothpicks, etc. Do not have more than 4 different types of objects per group, although the

groups do not have to have the same objects. Ask the learners to sort the objects, but do not give any other directions. Once the groups have sorted their objects, ask them to explain how they sorted them e.g. according to kind, or size, or colour, etc. There is no right or wrong way provided learners can justify their grouping of the objects.

Tip: *If possible, make groups of 4 learners. When groups get too big many learners don't participate and only one or two learners end up doing all the work.*

- Now give each group a large piece of paper and ask them to arrange the objects in a way that they will be able to see which group has the most objects and which group has the least. Allow learners to set it out in their own way. Discuss the different collections once everyone has finished.

  Tip*: These activities allow you plenty of time to talk to the learners and ask questions to assess their understanding of what they are doing. Use this a part of Assessment Task 2.*

ASSESSMENT	**Formal: Recorded Assessment Task 2:** During the whole class and group teaching activities as indicated, rate the learners against the following milestones, recording specific problems : • Writes and reads number symbols from 1-20 • Writes and reads number names from 1-10 • Orders more than 2 given numbers fro smallest to biggest • Counts in multiples of 2 using concrete objects • Writes a number sentence correctly using +, - and = • Estimates up to 10 objects • Compare 3D objects by measuring using non-standard measures e.g. how many cups fill a bottle with water (capacity) • Collects, sorts, explains and draws a collection of objects according to 1 attribute.

WEEK 7 : GROUP TEACHING

Week 7	GROUP TEACHING COMPONENT (Concept Development and Problem Solving)

Notes to teacher:

- By now you have established 3 groups. Every day you will work with 2 different groups in a small group situation e.g. sitting on the mat together. During this time you will do activities to develop number concepts at the level of the learners in the group. A number of types of activities are provided and you should do ALL the types each time you work with that group; but remember, although examples are provided, you should look for your own examples that will suit your learners. You will also give the learners at least 2 different word problems to solve every time you work with them. **It is through solving problems and discussing the solutions that learners develop a sense of number, an understanding of the operations and the ability to reflect on their thinking.**
- While you are working with a group, the rest of the class will be working independently. You need to provide them with a variety of activities which reinforce and consolidate concepts already learnt. Try to vary the activities e.g. giving a practical activity (counting counters in counting bags), a written activity (filling in numbers, sequencing, etc.) and a fun activity (dot-to-dot pictures, puzzles, etc.)
- Counting in multiples of 2 should be done when working with a group as this allows you to assess a few learners at a time and makes your assessment authentic.
- **Assessment Task 2** will be completed by the end of this week.

DAILY ACTIVITIES

Examples of activities to be done independently. *Work from a Learner's Book, worksheets, work cards, work charts etc.*

Groups 1 and 2

- Sequencing numbers/Fill in the missing numbers 1-10
- Activities for before/after/between/more/less
- Odd and even numbers
- Addition and subtraction up to 10
- Make some play dough in different colours. Learners make objects and use these objects to create a pattern.
- Number value 1-10
- Ordinal value 1-10

Group 3

- Write the numbers 1 to 10 in their books, drawing the correct number of pictures next to each number and writing the correct word.
- Complete a sequencing activity e.g. fill in the missing numbers on a number line, dot-to-dot etc.
- Give the learners number cards 1 to 10. They arrange them from smallest to biggest then copy the numbers into their books.
- Provide cards with a different number of pictures on each card. Learners count the number of pictures, then write the number in their books and draw the pictures.
- Addition and subtraction up to 10 using counters and pictures
- Activities for before/after/between/more/less
- Make some play dough in different colours. Learners make objects and use these objects to create a pattern

Working with the group

GROUP 1

*On **Monday** and **Wednesday** this group works with the teacher for 20 minutes*.

- Make sure all learners have access to counters and then ask them to count out 10 counters. Now tell them to put them into piles of 2. As they count them they place the counters on their number line i.e. say 2, then take the 2 counters and place them on the number 2; say 4 and take the 2 counters and place them on the number 4 - there are now 4 counters on the number line, 2 on the number 2 and 2 on the number 4. Once learners have counted to 10 ask questions such as: *how many groups of 2 make 10? How much are 3 groups of 2?*
  ***Tip:** This activity is part of Assessment Task 2.*
- Let learners count out 20 objects. Now write the number 10 on a piece of paper and put it in front of the group. Let the learners take turns to tell the group something about the number 10, using their counters to show their thinking e.g. 5 plus 5 makes 10, 6 plus 4 makes 10, 20 take away 10 makes 10, etc. Encourage them to use all 20 counters, but the answer must always be 10 i.e. there should always be 10 counters in front of them.
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 34. Let each learner tell the group how s/he solved the problem. On Monday the word problems will be one multiplication and one addition and on Wednesday you will ask one subtraction and one halving word problems.
  ***Tip:** This week you will spend time on assessing activities towards Assessment Task 2. If you do not have enough time to ask 2 word problems, do one word problem on each of the days you work with the group. Otherwise do the assessment activity (counting in 2s) on one day and only word problems on the second day. You need to allow learners enough time to complete their problem solving.*

GROUP 2

*On **Tuesday** and **Thursday** this group works with the teacher for 20 minutes*.

- Make sure all learners have access to counters and then ask them to count out 10 counters. Now tell them to put them into piles of 2. As they count them they place the counters on their number line i.e. say 2, then take the 2 counters and place them on the number 2; say 4 and take the 2 counters and place them on the number 4 - there are now 4 counters on the number line, 2 on the number 2 and 2 on the number 4. Once learners have counted to 10 ask questions such as: *how many groups of 2 make 10? How much are 3 groups of 2?*
  ***Tip:** This activity is part of Assessment Task 2.*
- Let learners count out 20 objects. Now write the number 10 on a piece of paper and put it in front of the group. Let the learners take turns to tell the group something about the number 10, using their counters to show their thinking e.g. 5 plus 5 makes 10, 6 plus 4 makes 10, 20 take away 10 makes 10, etc. Encourage them to use all 20 counters, but the answer must always be 10 i.e. there should always be 10 counters in front of them.
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures

and so on. This group works in the number range 1 to 20. Let each learner tell the group how s/he solved the problem. On Tuesday the word problems will be one multiplication and one addition and on Thursday you will ask one subtraction and one halving word problems.
Tip: *This week you will spend time on assessing activities towards Assessment Task 2. If you do not have enough time to ask 2 word problems, do one word problem on each of the days you work with the group. Otherwise do the assessment activity (counting in 2s) on one day and only word problems on the second day. You need to allow learners enough time to complete their problem solving.*

GROUP 3

*This group works with the teacher **every day** for 20 minutes.*

- Make sure all learners have access to counters and then ask them to count out 10 counters. Now tell them to put them into piles of 2. As they count them they place the counters on their number line i.e. say 2, then take the 2 counters and place them on the number 2; say 4 and take the 2 counters and place them on the number 4 - there are now 4 counters on the number line, 2 on the number 2 and 2 on the number 4. Once learners have counted to 10 ask questions such as: *how many groups of 2 make 10? How much are 3 groups of 2?*
  Tip: *This activity is part of Assessment Task 2.*
- Let learners count out 10 objects. Now write the number 6 on a piece of paper and put it in front of the group. Let the learners take turns to tell the group something about the number 6, using their counters to show their thinking e.g. 5 plus 1 makes 6, 2 plus 4 makes 6, 10 take away 4 makes 6, etc. Encourage them to use all 10 counters, but the answer must always be 6 i.e. there should always be 6 counters in front of them.
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 15. Let each learner tell the group how s/he solved the problem. On Monday and Tuesday the word problems will be one multiplication and one addition and on Wednesday and Thursday you will ask one subtraction and one halving word problems.
  Tip: *This week you will spend time on assessing activities towards Assessment Task 2. If you do not have enough time to ask 2 word problems, do one word problem on each of the days you work with the group. Otherwise do the assessment activity (counting in 2s) on one day and only word problems on the second day. You need to allow learners enough time to complete their problem solving.*

Assessment	**Formal: Recorded Assessment Task 2:** During the whole class and group teaching activities as indicated, rate the learners against the following milestones, recording specific problems : • Writes and reads number symbols from 1-20 • Writes and reads number names from 1-10 • Orders more than 2 given numbers fro smallest to biggest • Counts in multiples of 2 using concrete objects • Writes a number sentence correctly using +, - and = • Estimates up to 10 objects • Compare 3D objects by measuring using non-standard measures e.g. how many cups fill a bottle with water (capacity) • Collects, sorts, explains and draws a collection of objects according to 1 attribute.

SUGGESTED ASSESSMENT TASKS : GRADE 1 NUMERACY SECOND TERM

TASK 2 : WEEK 7

COMPONENT	MILESTONES	WK	TASKS
COUNTING AND MENTAL/NUMBER SENSE	• Writes and reads number symbols from 1-20 • Writes and reads number names from 1-10 • Orders more than 2 given numbers fro smallest to biggest • Counts in multiples of 2 using concrete objects • Writes a number sentence correctly using +, - and = • Estimates up to 10 objects	7	• Use the daily oral activities to assess learners' understanding of the numbers and number names 1 to 10 and their relationship, as well as to assess the ordering of numbers. • Use the written activity on Day 1 to observe learners' understanding of the order of numbers. • Use the written activities on Day 2 to assess learners' knowledge of numbers 1 to 10. • Use the written activities for Day 3 and those done as independent work during the week to assess the writing of addition and subtraction number sentences.
PROBLEM SOLVING	• Compare 3D objects by measuring using non-standard measures e.g. how many cups fill a bottle with water (capacity) • Collects, sorts, explains and draws a collection of objects according to 1 attribute.	7	• Use the practical activities on Day 4 to observe learners' understanding of measurement: capacity. • Use the activities on Day 5 to assess learners' ability to collect and display data.

SECOND TERM: WEEK 8 OVERVIEW

<table>
<tr><th>COMPONENT</th><th>MILESTONES</th><th>DAY 1</th><th>DAY 2</th><th>DAY 3</th><th>DAY 4</th><th>DAY 5</th></tr>
<tr><td>COUNTING

LO 1 AS 1,2</td><td>• Counts out objects to 10
• Counts to 40 reliably, e.g. using a number line, abacus, etc.
• Counts in multiples of 2 using concrete objects</td><td colspan="5">Daily:
• Rote count from 1 to 100
• Count in 1s from 11 to 39 while pointing on a number line/ number grid or counting using an abacus.
• Count forwards and backwards up to 39
• Count in 2's from 1 to 10 using counters</td></tr>
<tr><td rowspan="3">NUMBER SENSE AND MENTAL

LO1 AS 3,4,7,9
LO 2 AS 1, 2
LO 3 AS 1</td><td rowspan="3">• Writes and reads number symbols from 1-20
• Writes and reads number names from 1-10
• Orders more than 2 given numbers fro smallest to biggest
• Copies simple patterns using physical objects and drawings
• Copies simple number sequences
• Number knowledge and mental computations:
- Doubles and halves numbers to10
- Identifies the numerosity of numbers 1 to 10.</td><td colspan="5">Daily:
• Revision of ordering numbers 1 to 10
• Numbers and number names up to 10
• Numerosity 1 to 10</td></tr>
<tr><td>DAY 1</td><td>DAY 2</td><td>DAY 3</td><td>DAY 4</td><td>DAY 5</td></tr>
<tr><td>Patterns objects

Odd and even numbers (practical)

Number names and symbols from 1 to 10</td><td>Sequence numbers

Numerosity of numbers 1 to 10

Odd and even numbers (recorded)</td><td>Patterns drawings

Double and halve

Knows, reads and writes number names and symbols from 1-10</td><td>Pattern numbers

Double and halve

Numerosity of numbers 1 to 10</td><td rowspan="2">WHOLE CLASS ACTIVITY.

Space and shape activities integrating with Life Orientation LO 4.</td></tr>
<tr><td>GROUP TEACHING

LO 1 AS6,7,11</td><td>• Estimates up to 10 objects
• Solves and explains solutions to practical problems that involve equal sharing and grouping with numbers to at least 20 by using concrete objects and drawings
• Solves problems, and explains solutions, using concrete objects and drawings using numbers to 20</td><td colspan="4">Ask each group the same problems. They can be solved using counters, drawings, etc.
Number range: Group 1 works in 1-40; Group 2 works in 1-25; Group 3 works in 1-20</td></tr>
<tr><td></td><td>Group 1 and 3 work with teacher, one group at a time.
Ask one doubling and one halving word problem.
Group 2 works on its own.</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one doubling and one halving word problem.
Group 1 works on its own.</td><td>Groups 1 and 3 work with teacher, one group at a time.
Ask one sharing and one grouping word problem.
Group 2 works on its own.</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one sharing and one grouping word problem.
Group 1 works on its own.</td></tr>
</table>

WEEK 8 : WHOLE CLASS

WEEK 8	WHOLE CLASS COMPONENT (Counting and Mental/Number sense)

Notes to the teacher:

- Counting at the beginning of the day helps learners begin to develop the numerosity of numbers. Every day you will let your learners do rote counting (to develop the vocabulary of numbers) as well as rational counting (thinking what they are doing) activities. Counting at the beginning of the lesson is done with the whole class every day.
- By now you would have made sufficient resources that would assist you with these activities. Get learners to bring objects that could be used for counting. Store your resources for future use. Have a good retrieval system. Work with other teachers to make resources.
- Daily activities indicate activities that should be done every day. The specific concepts being developed are indicated every day e.g. Day 1.
- You will now have worked with your class for nearly 6 months and should be able to see the progress learners have made. Remember, constant revision is necessary, but try to vary the activities as this provides different contexts for the same concepts.

DAILY ACTIVITIES

COUNTING AND MENTAL/NUMBER SENSE

Daily Activities.(to take no more than 10 minutes)

These must be done daily:

- Learners rote count to at least 100 and further if they can. This should be fun for the learners so make sure you use a variety of strategies when doing rote counting.
- Let a learner point to the number 9 on the number line or number grid and, while the learner points to the numbers, let the class start counting from 9 and stop at 39. This is quite difficult and you may ask only a few learners to count rather than the whole class together.
- Count backwards from 39 to1

Choose from the following to make up the 10 minutes:

- You need to develop the numerosity of numbers 1 to 10. Prepare questions that you will ask to develop thinking about a number e.g. all about 5: What is one more than 4? What is one less than 6? How much is 3+2=? If you show me 10 fingers and then hide 5 fingers, how many can I still see? Which number comes after 4? Which number is before 6? Which number is between 4 and 6? Make charts for each number and these charts can be used for oral and recorded work.
- Make sure each learner has his/her own number line from1 to 10. As you give the command they must place a counter on the correct number. Say things like :*This is the number before 3. This is the number between 1 and 3. This number is 1 more than 1. This number is 1 less than 3.* Now ask which number has the most counters on – all the counters should be on 2! You can also let learners give the commands. Another activity would be for each learner to put their counter on a number and then tell the class something about the number e.g. put the counter on 4 and say 'this number is 1 less than 5 and 1 more than 3, etc.
- Teach a new number rhyme e.g. there were 10 in the bed.
- Learners position objects according to your instructions e.g. place a book 1st, a pencil 2nd, a ruler 3rd, a red crayon 4th etc. Learners can repeat the pattern. Ask questions such as "What do you see in 8th position?"

DAY 1 (to take no more than 30 minutes)

- Get the learners to work in pairs at their tables. Hand out shapes and number cards. Learners must create a pattern using objects (shapes) e.g. 1 big circle, 2 small circles, 3 big triangles, 4 small triangles, 5 big squares, 6 small squares, 7 big rectangles, 8 small rectangles, 9 big diamonds and 10 small diamonds. Once this done, the learners must place the number cards under each set of shapes thus developing sequencing of numbers as well.
- Hand out counting boxes, pieces of paper and 2 crayons (red and green). Write a number on the board and ask the learners to read the number, count out the correct number of counters and then make groups of 2 e.g. number 3 – they will be able to make one group of two and one will be left over. Ask if it is an even or an odd number. They must write down a 3 on the piece of paper in green crayon. Now write the number 4 on the board. Learners count out 4 counters and make groups of two. They will be able to make two groups of 2 and nothing will be left. Ask if this is an even or and odd number. Ask if anyone can explain how you know if a number is odd or even. Learners write number 4 in red. As the learners proceed with each number, they will have some numbers in red and some in green. Once they have written all the numbers from 1 to 10, they must arrange them in order starting with 1. Ask what pattern can be seen -all the even numbers will be in red and the odd numbers will be in green. Tell the learners to put the pieces of paper into their counting boxes for the next day's lesson.
- Revise the numbers and number names from 1 to 10 from your number charts. You can play 'I spy' e.g. I spy with my little eye, a number that is 2 more than 6.

DAY 2 (to take no more than 30 minutes)

- Tell the learners to take out the pieces of paper from their counting boxes. Get them to arrange the numbers from smallest to biggest. Then ask the learners to separate the red and green numbers and arrange them from smallest to biggest in two separate lines. Ask what the green numbers are (odd) and what the red numbers are (even). Get the learners to read the odd and even numbers from 1 to 10.
- Place a big paper chart on the board and write the number 6 at the top. Ask learners to tell you something about number 6. They will probably give you addition and subtraction number sentences that have the answer 6. Encourage them to think about other ways of describing 6 e.g. double 3 is 6. Write these down on the chart as you go along. This chart can be used again for revision, consolidation, oral and recorded work.
- Design activities for recording odd and even numbers. You can use one or some of the following activities.
    - Give each learner a number line from 1 to 10. Let the learners colour the even numbers in pink and colour the odd numbers in yellow. (Learners must be encouraged to choose their own colours).
    - Have dot-to-dot activities where learners can join the odd or even numbers to make a picture.

- Write 5 words on a chart. Tell learners to count the letters in each word and write down the number. They then must write down the numbers from smallest to biggest as well as the words. Learners can circle the even numbers or odd numbers, e.g.

sun	③	windy	⑤	Tuesday	⑦
me	2	book	4		

DAY 3 (to take no more than 30 minutes)

- Give the learners sheets of paper and tell them to create patterns using drawings. They could use shapes or pictures of objects e.g. 1 tree, 2 birds, 3 apples, 4 flowers and then start the pattern again. Tell them to write the number under the set of pictures.
- Learners must work in pairs. They take out their counting boxes, listen to the number you say e.g. 4 and then they must each put out 4 counters. Ask what they can do to double the number 4. Although you have already introduced this concept through word problems, some learners might experience difficulty understanding what to do. Discuss that when you double you must put out the same number of counters as they already have - that means they are adding the same number. In this example they must have 2 groups of 4 counters, so by putting both groups together they can count and say there are 8 counters. Now tell them to each count out 3 counters. Again ask what they have to do to double this number and let them put both groups of 3 together and count the number – 6. Walk around and assist.
- For halving of numbers give the learners little circles cut out from coloured paper. Tell them to imagine that they are delicious biscuits. Give them a number e.g. 7. They must count out 7 circles and share them between each other. They can share one for you/one for me and so on until they come to last one and find out they are one short. Ask them to work out what is to be done. Allow them to share their answers with you. In this case they might tell you that it can be broken in half since it is a biscuit. So tell them to fold the circle in half and cut along the folded line and give a piece to each other. They would now have 3 whole circles and half a circle. With even numbers it will be easy to share exactly. You can do other examples of these during problem solving activities.

DAY 4 (to take no more than 30 minutes)

- Working with the learners, write down the addition and subtraction number sentences for 5 on the board e.g. 0+5=5, 1+4=5, 2+3=5, 3+2=5, 4+1=5, 5+0=5
  5-0=5, 6-1=5, 7-2=5, 8-3=5, 9-4=5, 10-5=5.
  Ask the learners if they can find a pattern with the numbers.
- Draw 2 pictures on the board and ask someone to come and help you double the number. A learner will then draw another 2 pictures, count them all and say double 2 is 4. Learners copy this into their books and write the number sentence 2+2=4. Repeat this with other numbers up to 5.
  Tip: *Allow learners to use their counters to help them if they need them.*
- Draw 6 apples on the board and 2 stick figures and ask how each figure can get the same number of apples. Let the learners tell you what to do - share the apples by drawing one next

to the first child and then drawing one next to the second child and so on. Draw a line from the top apple to the one you are giving each child. In this way the learners can see how they are sharing. Share all the apples and then count how many apples each child got. Ask what half of 6 is and learners should be able to tell you the answer 3.

Tip: *Allow learners to use their counters to help them if they need them.*

DAY 5 (the whole lesson)

- Give each learner an old magazine, or newspaper, and take the class outside. Show the learners the demarcated area that they are going to move in and ask them to find their own space and put their magazine/newspaper down. Give a few instructions such as:
  - Stand in front of your magazine.
  - Kneel next to your magazine.
  - Sit on top of your magazine.
  - Stand behind your magazine, etc.
- Tell the learners that they are going to move between the objects on the ground while you beat a drum (or clap your hands, or play some music, etc.) and that when the sound stops, they must stand on top of the nearest magazine/newspaper. Start beating a drum and while the learners are moving around, remove one of the magazines. Stop beating the drum and learners must find a magazine to stand on top of. One learner will not find a magazine and will stand with you. Beat the drum again and while the learners are moving around, remove another magazine. Keep doing this till there are 2 learners left but only 1 magazine, and the winner is the learner who gets to the magazine first! If there is time, play the game again.
- Let the learners each find their own space and tell them that they are an ice-cream (or block of ice), melting in the sun. They must get smaller and smaller until they are a puddle on the ground. Let each learner pick up a magazine and take it back to the class.

ASSESSMENT	**Formal :** Formal, recorded Assessment **Informal:** Unrecorded assessment of learners oral responses and ability to participate.

WEEK 8 : GROUP TEACHING

Week 8	GROUP TEACHING COMPONENT (Concept Development and Problem Solving)

Notes to teacher:

- You will give the learners at least 2 different word problems to solve every time you work with them.
- Problems involving all four operations (+, –, x and ÷) are introduced simultaneously, as this develops the learner's number concept. Make sure learners are introduced to a variety of problems, both routine and non-routine , regularly because different problems require different solution strategies. Individual skills and interests vary, and so what may be a problem for one learner will not be a problem for another learner.
- While you are working with a group, the rest of the class will be working independently. You need to provide them with a variety of activities which reinforce and consolidate concepts already learnt. Try to vary the activities e.g. giving a practical activity (counting counters in counting bags), a written activity (filling in numbers, sequencing, etc.) and a fun activity (dot-to-dot pictures, puzzles, etc.)
- This week you are concentrating on developing the concept of doubling and halving. You will have already introduced the vocabulary through word problems in previous weeks and will continue to develop learners' understanding of these concepts through practical and problem solving activities.

DAILY ACTIVITIES

Examples of activities to be done independently. *Work from a Learner's Book, worksheets, work cards, work charts etc.*

Groups 1 and 2

- Sequencing numbers/Fill in the missing numbers 1 to 10
- Activities for before/after/between/more/less e.g.

Make 1 more			Make 1 less	
3			4	
7			8	
1			2	
9			3	
2			5	

- Addition and subtraction up to 10 e.g.

1+1=	1-1=	1+2=	
2+1=	2-1=	2+2=	2-2=
3+1=	3-1=	3+2=	3-2=
4+1=	4-1=	4+2=	4-2=

- Number value 1 to 10
- Ordinal value 1 to 10

Group 3

- Write the numbers 1 to 10 in their books, drawing the correct number of pictures next to each number and writing the correct word.

	6	
☺ ☺ ☺		three
		four
♥ ♥♥ ♥♥	5	
		two

- Complete a sequencing activity e.g. fill in the missing numbers on a number line, dot-to-dot etc.
  Fill in the missing parts e.g.
  □ □ ○ □ □ ○ -------- ---------- ----------
- Give the learners number cards 1 to 10. They arrange them from smallest to biggest then copy the numbers into their books.
- Provide cards with a different number of pictures on each card. Learners count the number of pictures, then write the number in their books and draw the pictures.
- Addition and subtraction up to 10

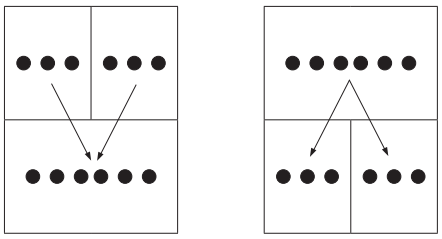
Working with the group

GROUP 1

*On **Monday** and **Wednesday** this group works with the teacher for 20 minutes*.

- Put 20 counters in front of the learners, let them look for a few moments, then cover the counters. Ask the learners to estimate how many counters there are. Get each learner to write his/her answer on a small piece of paper. Count the counters and ask the learners to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Put a pile of counters in the middle of the group and tell the learners to count out 3 counters. Ask what they will have to do if they want to double the number, and then let them count out another 3. Ask how many all together and if necessary, learners will count all the counters they have put out i.e. 6. Check that they know they have 6 counters and ask what they will do if they only want half that number. Repeat this using other numbers. Write it as follows:

Double 3 Half of 6



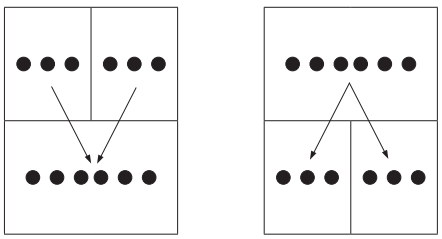
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 34. Let each learner tell the group how s/he solved the problem. On Monday the word problems will be one doubling and one halving and on Wednesday you will ask one sharing and one grouping word problems.
  Tip: *You are developing concepts through the use of word problems as this provides the context for the concept and learners are better able to understand the new vocabulary.* ***Do not expect learners to write number sentences when solving word problems*** *as the emphasis should be on the thinking and understanding involved when working out a solution.*

GROUP 2

On ***Tuesday*** *and* ***Thursday*** *this group works with the teacher for 20 minutes*.

- Put 10 counters in front of the learners, let them look at the counters for a few moments, then cover them. Ask the learners to estimate how many counters there are. Get each learner to write his/her answer on a small piece of paper. Count the counters and ask the learners to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Put a pile of counters in the middle of the group and tell the learners to count out 3 counters. Ask what they will have to do if they want to double the number, and then let them count out another 3. Ask how many all together and if necessary, learners will count all the counters they have put out i.e. 6. Check that they know they have 6 counters and ask what they will do if they only want half that number. Repeat this using other numbers. Write it as follows:

Double 3 Half of 6



- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 25. Let each learner tell the group how s/he solved the problem. On Tuesday the word problems will be one doubling and one halving and on Thursday you will ask one sharing and one grouping problem.
  Tip: *You are developing concepts through the use of word problems as this provides the context for the concept and learners are better able to understand the new vocabulary.* ***Do not expect learners to write number sentences when solving word problems*** *as the emphasis should be on the thinking and understanding involved when working out a solution.*

GROUP 3

This group works with the teacher ***every day*** *for 20 minutes.*

- Put 10 counters in front of the learners, let them look at them and then cover the counters. Ask the learners to estimate how many counters there are. Get each learner to write his/her answer on a small piece of paper. Get one learner to count out the counters and ask the others to join in the counting. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Hand out number cards to each of the learners. They take turns to show the number they have and the rest of the group must clap that many times. The learner showing the number checks if they have clapped the correct number.
  Tip*: You are encouraging learners to take responsibility for their own learning by doing this.*
- Put a pile of counters in the middle of the group and tell the learners to count out 3 counters. Ask what they will have to do if they want to double the number, and then let them count out another 3. Ask how many all together and if necessary, learners will count all the counters they have put out i.e. 6. Check that they know they have 6 counters (some learners may need to re-count their counters)and ask what they will do if they only want half that number. Repeat this using other numbers.
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This week the group will work in the number range 1 to 10. Let each learner tell the group how s/he solved the problem. On Monday and Tuesday the word problems will be one doubling and one halving and on Wednesday and Thursday you will ask one sharing and one grouping problem.
  Tip: *You are developing concepts through the use of word problems as this provides the context for the concept and learners are better able to understand the new vocabulary.* ***Do not expect learners to write number sentences when solving word problems*** *as the emphasis should be on the thinking and understanding involved when working out a solution.*

Assessment	**Formal :** Formal, recorded Assessment **Informal :** Unrecorded assessment of learners oral responses and ability to participate

SECOND TERM: WEEK 9 OVERVIEW

<table>
<tr><th>COMPONENT</th><th>MILESTONES</th><th>DAY 1</th><th>DAY 2</th><th>DAY 3</th><th>DAY 4</th><th>DAY 5</th></tr>
<tr><td>COUNTING

LO 1 AS 1,2</td><td>• Says number names in sequence (rote counting)
• Counts out objects to 10
• Counts to 50 reliably, e.g. on a number line, abacus, etc.
• Counts in multiples of 2 using concrete objects</td><td colspan="5">Daily:
• Rote count from 1 to 100
• Count in 1s from 7 to 47 while pointing on a number line/ number grid or count using an abacus.
• Count in 2s from 1 to 10 using counters</td></tr>
<tr><td rowspan="3">NUMBER SENSE AND MENTAL

LO1 AS 3,4,7,9
LO 2 AS 2</td><td rowspan="3">• Writes and reads number symbols from 1-20
• Writes and reads number names from 1-10
• Orders more than 2 given numbers fro smallest to biggest
• Copies simple patterns using physical objects and drawings
• Copies simple number sequences
• Number knowledge and mental computations:
- Doubles and halves numbers to10
- Identifies the numerosity of numbers 1 to 10.
- Is able to add and subtract single digit numbers</td><td colspan="5">Daily:
• Revision of order of numbers 1st to 10th
• Numbers and number names up to 10
• Numerosity 1 to 10</td></tr>
<tr><td>DAY 1</td><td>DAY 2</td><td>DAY 3</td><td>DAY 4</td><td>DAY 5</td></tr>
<tr><td>Patterns using objects

Double and halve</td><td>Sequence numbers

Numerosity 1 to 10</td><td>Patterns using drawings

Double and halve</td><td>Pattern using numbers

Addition and subtraction of single-digit numbers</td><td rowspan="3">WHOLE CLASS ACTIVITY

Number games outside.</td></tr>
<tr><td>GROUP TEACHING

LO 1 AS6,7,11</td><td>• Estimates up to 10 objects
• Solves and explains solutions to practical problems that involve equal sharing and grouping with numbers to at least 20 by using concrete objects and drawings
• Solves all types of problems, and explains solutions, using concrete objects and drawings using numbers to 20</td><td colspan="4">Ask each group the same problems. They can be solved using counters, drawings, etc.
Number range: Group 1 works in 1-40; Group 2 works in 1-25; Group 3 works in 1-20</td></tr>
<tr><td>Group 1 and 3 work with teacher, one group at a time.
Ask one addition and one subtraction word problem.
Group 2 works on its own.</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one addition and one subtraction word problem.
Group 1 works on its own</td><td>Groups 1 and 3 work with teacher, one group at a time.
Ask one grouping and one sharing word problem.
Group 2 works on its own</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask one grouping and one sharing word problem.
Group 1 works on its own</td></tr>
</table>

WEEK 9: WHOLE CLASS

WEEK 9	WHOLE CLASS COMPONENT (Counting and Mental/Number sense)

Notes to the teacher:

- Counting at the beginning of the day helps learners focus on numbers. Every day you will let your learners do rote counting (to develop the vocabulary of numbers) as well as rational counting (thinking what they are doing) activities. Counting at the beginning of the lesson is done with the whole class every day.
- By now you would have made sufficient resources that would assist you with these activities. Get learners to bring objects that could be used for counting. Store your resources for future use. Have a good retrieval system. Work with other teachers to make resources.
- Delegate duties to responsible learners to help you hand out resources like counters, puzzles etc. to the learners.
- Daily activities indicate activities that should be done every day. The specific concepts being developed are indicated every day e.g. Day 1.

DAILY ACTIVITIES

COUNTING AND MENTAL/NUMBER SENSE

Daily Activities.(to take no more than 10 minutes)

These must be done daily:

- Learners rote count to at least 100 and further if they can. This should be fun for the learners so make sure you use a variety of strategies when doing rote counting.
- Let a learner point to the number 7 on the number line or number grid and, while the learner points to the numbers, let the class start counting from 7 and stop at 47. This is quite difficult and you may ask only a few learners to count rather than the whole class together.
- Count backwards from 47 to 1 using an abacus or number line.
  Tip: *The learner could use the teacher's abacus if one is available.*

Choose from the following to make up the 10 minutes:

- Make sure each learner has his/her own number line from1 to 10. As you give the command they must place a counter on the correct number. Say things like :*This is the number before 9. This is the number between 7 and 9. This number is 2 more than 6. This number is 1 less than 9.* Now ask which number has the most counters on – all the counters should be on 8! You can also let learners give the commands. Another activity would be for each learner to put their counter on a number and then tell the class something about the number e.g. put the counter on 4 and say 'this number is 1 less than 5 and 1 more than 3, etc.
- Make sure all learners have access to counters and then ask them to count out 10 counters. Now tell them to put them into piles of 2. As they count them they place the counters on their number line i.e. you say 2, then they take the 2 counters and place them on the number 2; you say 4 and they take the 2 counters and place them on the number 4 - there are now 4 counters on the number line, 2 on the number 2 and 2 on the number 4. Once learners have counted to 10 ask questions such as: *how many groups of 2 make 10? How much are 3 groups of 2?*
- Count out the odd numbers or even numbers on each number line.
- Revise numbers 1 to 10 from the number charts. Get learners to read the number names as well.

- Revise ordinal numbers from 1st to 10th. Do this incidentally throughout the week e.g. when the class lines up ask who if first, second, last, etc. or say the first person to stand is Sipho and the second person to stand is Jane etc. and then ask *who stood up first?* Etc.
- Revise one of the number rhymes taught during the term.
- Mark the register, complete the weather chart and birthday chart every day, using the time to develop basic concepts e.g. colour, sequencing days and months, ordering, etc.

DAY 1 (to take no more than 30 minutes)

- Get the learners to work in pairs at their tables. Hand out objects e.g. bottle tops, ice-cream sticks, matchsticks, counting cubes, counting discs, beads, shells any other objects that you have and number cards. Learners must create a pattern using objects e.g. 1 shell, 2 bottle tops, 3 matchsticks, 4 cubes, 5 ice-cream sticks, 6 discs, 7 beads, 8 rubber bands, 9 sharpeners and 10 pencils. Once this done, the learners would place the number cards under each set of shapes thus developing sequencing of numbers as well. They can now draw the sequence in their books.
- Call out 4 learners to the front and then tell the class you have made a mistake – you only want half the number of learners, so what should you do? Allow a few learners to tell you, even if they all tell you the same thing (send 2 learners back to their desks). This encourages learners to think for themselves. Call out 3 learners to join the 2 in front and ask how many learners there are – 5. Ask what you should do if you want double the number of learners. Again, allow a few learners to answer you before calling out another 5 learners. Count the number and ask questions such as *what is double 5? 10 is double which number? What is half of 10?*

DAY 2 (to take no more than 30 minutes)

- Give the learners blank number lines. Tell them to fill in the multiples of 2 up to 10 using a coloured crayon. Now ask them to fill in the missing numbers using a different colour. Let the learners count in 2s by putting 2 counters on the even numbers as they say them i.e. 2 counters on 2, another 2 counters on 4, another 2 counters on 6, etc.
- Let the shortest learner in the class choose a number between 1 and 10 e.g. 8. Ask one row of learners to each tell you a different thing about the number chosen e.g. 4 and 4 makes 8, 8 comes before 9 and so on. Write the answers on the board under the number 8. Now let the tallest learner choose a number between 1 and 10 and, working with a different row, let the learners tell you facts about the chosen number. Write the answers on the board. Repeat this, choosing different numbers, until everyone has had a chance to answer.
  ***Tip**: Use your observations towards Assessment Task 3.*

DAY 3 (to take no more than 30 minutes)

- Give the learners sheets of paper and tell them to create patterns using drawings, but there must be 2 of each drawing e.g. 2 short trees, 2 tall trees, 2 short trees, 2 tall trees. They can write the number under each set of trees and then count all the trees they have drawn and write the number.

- Let the learners work in their books for this activity. Tell them to choose their own number between 1 and 10 and write it in their book. They must now write 5 different facts about the number they chose. Allow them to use counters, number lines, etc. Once they have done this, they can decorate their number, or draw patterns using the number.
  Tip: *Use this activity to assess the learners' understanding of the numerosity of a number. It will be part of Assessment Task 3.*

DAY 4 (to take no more than 30 minutes)

- Design activities to assess addition and subtraction of single-digit numbers. This is fairly straightforward so you should not have difficulty planning. Make reference to workbooks for new and interesting ideas. Learners must use counters or draw pictures to complete their work. Walk around and assist. You will still find some learners that experience difficulty with these concepts. Your immediate intervention will prove invaluable to them and will also help you to plan remedial activities for those learners. An example of an activity is:

Fill in the answers.
5+1= 5-1=
6+1= 6-1= etc.

Put a circle around the correct number.
4+3=? 6 7 8
8-2=? 6 7 8 etc.

Write the number sentences.
O O O O O O O O ØØ

Tip: *This is an assessment activity as part of Assessment Task 3.*

DAY 5 (whole lesson)

- Give each learner a piece of squared paper – it is better if you can draw it as you are then able to make bigger squares. Let learners write the numbers from 1 to 10, underneath each other, each on a new row. Learners now colour the correct number of squares for the number, using a different colour for each row. e.g.

1									
2									
3									
4									
5									
6									
7									
8									
9									
10									

Ask learners to describe the pattern they have made.

- For this activity you will need 20 hoops (or something similar) and 4 cards with each of the numbers e.g. 5, 9, 4, 10 and 8 (4 cards with 5, etc.). Take the learners outside and explain the game as follows
  - Each hoop has a number. When numbers and an operation are called out, learners need to find the hoop with the number that means the same and stand in it. There is more than one hoop with the answer so everyone will be able to find a place. Call out things which have the answer in the hoops e.g. double 5, 8 plus 1, half of 10, etc. Make sure that some of the numbers and operations are easy, while others are more difficult. Remember, this is just a game!

ASSESSMENT	**Formal: Recorded Assessment Task 3:** During the whole class and group teaching activities as indicated rate the learners against the following milestones, recording specific problems : • Number knowledge and mental computations: - Doubles and halves numbers to10 - Identifies the numerosity of numbers 1 to 10. - Is able to add and subtract single digit numbers • Solves and explains solutions to practical problems that involve equal sharing and grouping with numbers to at least 20 by using concrete objects and drawings • Solves problems, and explains solutions, using concrete objects and drawings with numbers up to 20.

WEEK 9: GROUP TEACHING

Week 9	GROUP TEACHING COMPONENT (Concept Development and Problem Solving)

Notes to teacher:

- By now you have established 3 groups. Every day you will work with 2 different groups in a small group situation e.g. sitting on the mat together. During this time you will do activities to develop number concepts at the level of the learners in the group. A number of types of activities are provided and you should do ALL the types each time you work with that group; but remember, although examples are provided, you should look for your own examples that will suit your learners. You will also give the learners at least 2 different word problems to solve every time you work with them. It is through solving problems and discussing the solutions that learners develop a sense of number, an understanding of the operations and the ability to reflect on their thinking.
- While you are working with a group, the rest of the class will be working independently. You need to provide them with a variety of activities which reinforce and consolidate concepts already learnt. Try to vary the activities e.g. giving a practical activity (counting counters in counting bags), a written activity (filling in numbers, sequencing, etc.) and a fun activity (dot-to-dot pictures, puzzles, etc.)
- **Assessment Task 3** will be completed this week. Your assessment will be more authentic when you assess learners individually and this is best done when working with a small group on the mat. You will assess both the solving of problems as well as doubling and halving during this time.

DAILY ACTIVITIES

Examples of activities to be done independently. *Work from a Learner's Book, worksheets, work cards, work charts etc.*

- Sequencing numbers/Fill in the missing numbers 1 to 10
- Activities for before/after/between/more/less e.g.

Make 1 more			Make 1 less	
3			4	
7			8	
1			2	
9			3	
2			5	

- Addition and subtraction up to 10 e.g.

1+1=	1-1=	1+2=	
2+1=	2-1=	2+2=	2-2=
3+1=	3-1=	3+2=	3-2=
4+1=	4-1=	4+2=	4-2=

- Write the numbers 1 to 10 in their books, drawing the correct number of pictures next to each number and writing the correct word.

	6	
☺ ☺ ☺		three
		four
♥ ♥♥ ♥♥	5	
		two

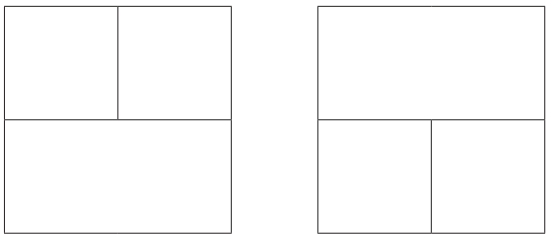
- Complete a sequencing activity e.g. fill in the missing numbers on a number line, dot-to-dot etc.
  Fill in the missing parts e.g.
  □ □ ○ □ □ ○ -------- ---------- ----------
- Give the learners number cards 1 to 10. They arrange them from smallest to biggest then copy the numbers into their books.
- Provide cards with a different number of pictures on each card. Learners count the number of pictures, then write the number in their books and draw the pictures.
  Tip: *You can use any of these activities for assessment if you need to. Remember, an assessment task is made up of a number of activities and IS NOT A TEST!*

Working with the groups

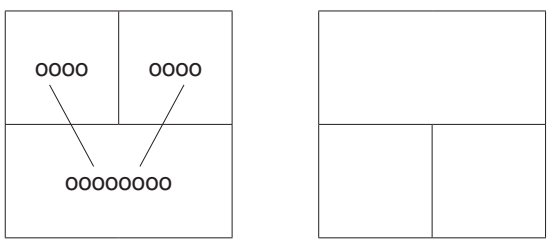
GROUP 1

*On **Monday** and **Wednesday** this group works with the teacher for 20 minutes.*

- Place a chart in front of the learners e.g.



Letting the learners take turns, tell them to either double or halve the number you give them using their counters and putting them in the correct place. For example, if you say double 4 the learner will use his/her counters and place them like this:



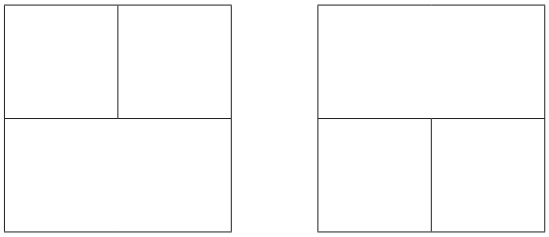
***Tip**: This is an assessment activity towards Assessment Task 3.*

- Prepare 2 to 4 charts with a problem written on each chart. Read the problem to the children and get them to read it with you. Ask them to solve the problem any way they can. Encourage learners to find more than one solution to a problem. Remember they can use counters, objects, drawings etc. to solve problems and should be able to explain to the group how they solved the problem. On Monday the word problems will be one addition and one subtraction and on Wednesday you will ask one sharing and one grouping word problems using the number range 1 to 20.
  Tip: *You will need to record how the learners solve each of the problems as this is one of the activities for Assessment Task 3.*

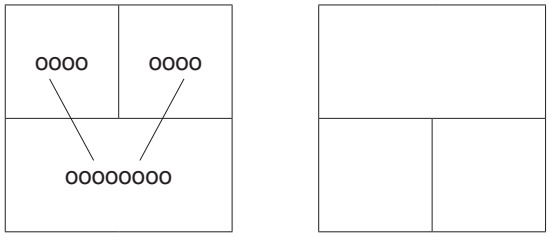
GROUP 2

*On **Tuesday** and **Thursday** this group works with the teacher for 20 minutes*.

- Place a chart in front of the learners e.g.



Letting the learners take turns, tell them to either double or halve the number you give them using their counters and putting them in the correct place. For example, if you say double 4 the learner will use his/her counters and place them like this:



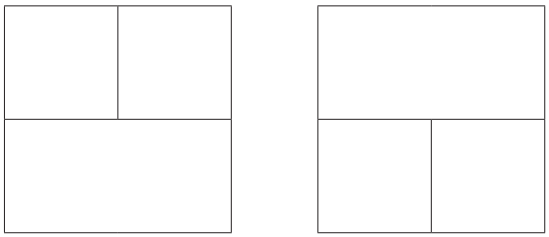
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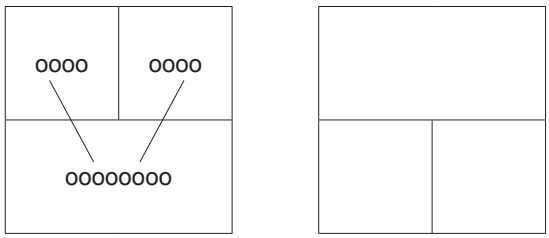
GROUP 3

*This group works with the teacher **every day** for 20 minutes.*

- Place a chart in front of the learners e.g.



Letting the learners take turns, tell them to either double or halve the number you give them using their counters and putting them in the correct place. For example, if you say double 4 the learner will use his/her counters and place them like this:



***Tip**: This is an assessment activity towards Assessment Task 3.*

- Prepare 2 to 4 charts with a problem written on each chart. Read the problem to the children and get them to read it with you. Ask them to solve the problem any way they can. Encourage learners to find more than one solution to a problem. Remember they can use counters, objects, drawings etc. to solve problems and should be able to explain to the group how they solved the problem. On Monday and Tuesday the word problems will be one addition and one subtraction and on Wednesday and Thursday you will ask one sharing and one grouping word problems using the number range 1 to 20.

  ***Tip:** You will need to record how the learners solve each of the problems as this is one of the activities for Assessment Task 3.*

Assessment	**Formal: Recorded Assessment Task 3:** During the whole class and group teaching activities as indicated rate the learners against the following milestones, recording specific problems : • Number knowledge and mental computations: - Doubles and halves numbers to10 - Identifies the numerosity of numbers 1 to 10. - Is able to add and subtract single digit numbers • Solves and explains solutions to practical problems that involve equal sharing and grouping with numbers to at least 20 by using concrete objects and drawings • Solves problems, and explains solutions, using concrete objects and drawings with numbers up to 20.

SUGGESTED ASSESSMENT TASKS : GRADE 1 NUMERACY SECOND TERM

TASK 3 : WEEK 9

COMPONENT	MILESTONES	WK	TASKS
COUNTING AND MENTAL/NUMBER SENSE	• Number knowledge and mental computations: - Doubles and halves numbers to10 - Identifies the numerosity of numbers 1 to 10. - Is able to add and subtract single digit numbers	9	• Use the oral activity on Day 2 and written activity on Day 3 to assess learners' understanding of the numerosity of number 1 to 10. • Use the written activity on Day 4 to assess learners' ability to add and subtract single digit numbers. • Use the practical activity when working with a small group to assess learners' understanding of doubling and halving.
PROBLEM SOLVING	• Solves and explains solutions to practical problems that involve equal sharing and grouping with numbers to at least 20 by using concrete objects and drawings • • Solves problems, and explains solutions, using concrete objects and drawings with numbers up to 20.	9	• Use the problems done during the week to assess learners' ability to solve problems.

SECOND TERM: WEEK 10 OVERVIEW

<table>
<tr><th>COMPONENT</th><th>MILESTONES</th><th>DAY 1</th><th>DAY 2</th><th>DAY 3</th><th>DAY 4</th><th>DAY 5</th></tr>
<tr><td>COUNTING

LO 1 AS 1,2</td><td>• Counts out objects to 10
• Counts to 40 on the number line
• Counts in multiples of 2 using concrete objects</td><td colspan="5">Daily:
• Rote count from 1 to 100
• Count in 1s from 12 to 51 while pointing on a number line/ number grid or count using an abacus.
• Count in 2s from 1 to 10 using counters</td></tr>
<tr><td rowspan="2">NUMBER SENSE AND MENTAL

LO1 AS 3,4,7,9
LO 2 AS 1,2</td><td rowspan="2">• Writes and reads number symbols from 1-20
• Writes and reads number names from 1-10
• Orders more than 2 given numbers fro smallest to biggest
• Copies simple patterns using physical objects and drawings
• Copies simple number sequences
• Number knowledge and mental computations:
- Doubles and halves numbers to10
- Identifies the numerosity of numbers 1 to 10.</td><td colspan="5">Daily:
• Revision of ordinal value 1st to 10th
• Numbers and number names up to 10
• Numerosity 1 to 10</td></tr>
<tr><td>DAY 1</td><td>DAY 2</td><td>DAY 3</td><td>DAY 4</td><td>DAY 5</td></tr>
<tr><td>GROUP TEACHING

LO 1 AS7, 10,11</td><td>• Recognises addition, subtraction and equals signs (+, -, =)
• Estimates up to 10 objects
• Solves all types of problems, and explains solutions, using concrete objects and drawings using numbers to 20</td><td>Patterns using objects

Odd and even numbers

Knows, reads and writes number names and symbols from 1to10</td><td>Sequence numbers

Double and halve

Identifies the numerosity numbers 1 to 10</td><td>Patterns using drawings

Knows, reads and writes number names and symbols from 1-10</td><td>Patterns

Odd and even numbers</td><td rowspan="2">WHOLE CLASS ACTIVITY.

Number games.</td></tr>
<tr><td colspan="5">Ask each group the same problems. They can be solved using counters, drawings, etc.
Number range: Group 1 works in 1-34; Group 2 works in 1-20; Group 3 works in 1-20</td></tr>
<tr><td></td><td></td><td>Group 1 and 3 work with teacher, one group at a time.
Ask 2 different addition word problems.
Group 2 works on its own.</td><td>Groups 2 and 3 work with teacher, one group at a time.
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Group 1 works on its own.</td><td>Groups 1 and 3 work with teacher, one group at a time.
Ask 2 different subtraction word problems.
Group 2 works on its own.</td><td>Groups 2 and 3 work with teacher, one group at a time.
Ask 2 different subtraction word problems.
Group 1 works on its own.</td><td></td></tr>
</table>

WEEK 10 : WHOLE CLASS

WEEK 10	WHOLE CLASS COMPONENT (Counting and Mental/Number sense)

Notes to the teacher:

- Counting at the beginning of the day helps learners focus on numbers. Every day you will let your learners do rote counting (to develop the vocabulary of numbers) as well as rational counting (thinking what they are doing) activities. Counting at the beginning of the lesson is done with the whole class every day.
- By now you would have made sufficient resources that would assist you with these activities. Get learners to bring objects that could be used for counting. Store your resources for future use. Have a good retrieval system. Work with other teachers to make resources.
- Delegate duties to responsible learners to help you hand out resources like counters, puzzles etc. to the learners.
- Daily activities indicate activities that should be done every day. The specific concepts being developed are indicated every day e.g. Day 1.
- This is a consolidation week and should not be taken lightly. Observe which learners have not understood and try to spend extra time with them if possible to determine the amount and nature of remediation required.

DAILY ACTIVITIES

COUNTING AND MENTAL/NUMBER SENSE

Daily Activities.(to take no more than 10 minutes)

These must be done daily:

- Learners rote count to at least 100 and further if they can. This should be fun for the learners so make sure you use a variety of strategies when doing rote counting.
- Point to the numbers on a number line or a number grid as learners count from 12 to 51. At the same time let a learner push the same number of beads across on the abacus.

Choose from the following to make up the 10 minutes:

- Learners guess your secret number :
  - My secret number is and even number that is more than 5 but less than 7.
  - My secret number is more than 5 and is double 4, etc.
- Put a pile of counters in the middle of the group. Let learners take turns to choose a number and then each group counts out the correct number of counters.
- Write a number between 1 and 10 on the board and ask learners to tell you different facts about the number.

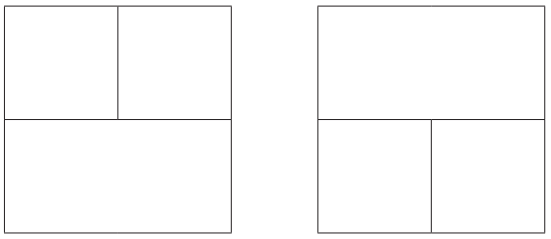
DAY 1 (to take no more than 30 minutes)

- Get the learners to work in pairs at their tables. Hand out objects e.g. bottle tops, ice-cream sticks, matchsticks, counting cubes, counting discs, beads, shells, crayons, pencils, sharpeners any other objects that you have and number cards. Learners must create a pattern using objects. Once this done, the learners would place the number cards under each set of objects thus developing sequencing of numbers as well.
- Hand out counting boxes, pieces of paper and 2 crayons (e.g. blue and yellow). Write a number on the board and learners read the number, then make groups of 2 e.g. number 7 – they would be able to make three groups of two and one would be left over. They should be able to tell you that this number is an odd number. They write down number 7 on the piece of paper in yellow crayon. Now write the number 10 on the board, learners count out 10

counters and make groups of two. The learners would be able to make five groups of 2 and nothing would be left. They tell you number 10 is an even number and write number 10 in blue on a piece of paper. As the learners proceed with each number, they would have some numbers in blue and some in yellow. Once they have completed all the numbers they must arrange them from 1 to 10. They discuss the pattern - all the even numbers are in blue and the odd numbers are in yellow. Tell the learners to put the pieces of paper into their counting boxes for the next day's lesson.

DAY 2 (to take no more than 30 minutes)

- Learners must work in pairs. Give each pair a sheet of paper. Tell them to draw circles the size of a 20c coin in a row. They must take out their number lines they completed last week (multiples of 2). Ask them to read the first number (2) and colour the first 2 in red, then colour 4 in blue, 6 in pink, 8 in green and ten in purple. Tell them to write the multiples of 2 under each set of coloured circles.
- Draw the doubling and halving grids on the board e.g.



Write one number and ask different learners to come and complete the grids by writing in the other numbers. Repeat the activity using different numbers, giving as many learners as possible a chance to participate.

DAY 3 (to take no more than 30 minutes)

- Give the learners beads and a shoelace and ask them to make a necklace. You can extend this activity by letting one learner thread beads and their partner must copy the pattern.
- Write the numbers from 1 to 20 on small pieces of paper and put them in a box. Take the class outside. Let 20 learners each take a piece of paper and then arrange themselves in the correct order. The remaining learners can be the judges to see that it is done properly! Now let the other learners have a chance to take numbers and arrange themselves in order.
- Put the numbers back in the box and let the learners find a partner. Each pair then takes a number. Ask questions such as *I am looking for the number that is 1 more than 9. Where can it be?* The learners with the number come and put it back in the box. Repeat until all the numbers are back in the box.

DAY 4 (to take no more than 30 minutes)

- Design activities for recording odd and even numbers. You can use one or some of the following activities.
  - Give each learner a number line from 1 to 10. Let the learners colour the even numbers in pink and colour the odd numbers in yellow. (Learners must be encouraged to choose their own colours).

- Have dot-to-dot activities where learners can join the odd or even numbers to make a picture.
- Write 5 words on a chart. Tell learners to count the letters in each word and write down the number. They then must write down the numbers from smallest to biggest as well as the words. Learners can circle the even numbers or odd numbers, e.g.

sun ③ windy ⑤ Tuesday ⑦ me 2 book 4

- Give learners a piece of paper and let them create their own pattern using either numbers or drawings.

DAY 5 (whole class)

- Take the class outside and put the learners into 4 teams. For each team place a bucket (or hoop) on a piece of newspaper. Count 5 steps away and place a marker. Give each team 5 bean bags and explain the rules of the game as follows:
  - Take turns to throw the 5 bean bags into the bucket.
  - If the bean bag goes into the bucket, it counts 2 points.
  - If the bean bag lands on the newspaper, it counts 1 point.
  - If the bean bag lands in the grass, it counts 0 points.
  - Learners keep count for each other.
  - The winner is the learner with the most points.

ASSESSMENT	**Formal :** Formal, recorded Assessment **Informal:** Unrecorded assessment of learners oral responses and ability to participate.

WEEK 10 : GROUP TEACHING

Week 10	GROUP TEACHING COMPONENT (Concept Development and Problem Solving)

Notes to teacher:

- By now you have established 3 groups. Every day you will work with 2 different groups in a small group situation e.g. sitting on the mat together. During this time you will do activities to develop number concepts at the level of the learners in the group. A number of types of activities are provided and you should do ALL the types each time you work with that group; but remember, although examples are provided, you should look for your own examples that will suit your learners. You will also give the learners at least 2 different word problems to solve every time you work with them. It is through solving problems and discussing the solutions that learners develop a sense of number, an understanding of the operations and the ability to reflect on their thinking.
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DAILY ACTIVITIES

Examples of activities to be done independently. *Work from a Learner's Book, worksheets, work cards, work charts etc.*

- Sequencing numbers/Fill in the missing numbers 1 to 10
- Activities for before/after/between/more/less e.g.

Make 1 more			Make 1 less	
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7			8	
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9			3	
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- Addition and subtraction up to 10 e.g.

1+1=	1-1=	1+2=	
2+1=	2-1=	2+2=	2-2=
3+1=	3-1=	3+2=	3-2=
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- Write the numbers 1 to 10 in their books, drawing the correct number of pictures next to each number and writing the correct word.

	6	
☺ ☺ ☺		three
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- Complete a sequencing activity e.g. fill in the missing numbers on a number line, dot-to-dot etc.
  Fill in the missing parts e.g.
  □ □ ○ □ □ ○ -------- ---------- ----------
- Give the learners number cards 1 to 10. They arrange them from smallest to biggest then copy the numbers into their books.
- Provide cards with a different number of pictures on each card. Learners count the number of pictures, then write the number in their books and draw the pictures.

Working with the group
GROUP 1

*On **Monday** and **Wednesday** this group works with the teacher for 20 minutes*.

- Take out your cut-out of your ladybird. Use prestik and stick 20 big coloured spots on its body. Let the learners look at the picture then cover it. Ask learners to estimate how many spots are there. Give each learner a chance to say how many s/he thinks there are. Uncover the picture and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 40. Let each learner tell the group how s/he solved the problem. On Monday the word problems will be 2 different addition problems and on Wednesday you will ask two different subtraction word problems.

GROUP 2

*On **Tuesday** and **Thursday** this group works with the teacher for 20 minutes*.

- Take out your cut-out of your ladybird. Use prestik and stick 10 big coloured spots on its body. Let the learners look at the picture then cover it. Ask learners to estimate how many spots are there. Give each learner a chance to say how many s/he thinks there are. Uncover the picture and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?

- Make sure each learner has access to paper, writing tools, counters and a number line. Ask them two different word problems which they solve by talking about them, drawing pictures and so on. This group works in the number range 1 to 25. Let each learner tell the group how s/he solved the problem. On Tuesday the word problems will be two different addition problems and on Wednesday you will ask two different subtraction word problems.

GROUP 3

*This group works with the teacher **every day** for 20 minutes.*

- Take out your cut-out of your ladybird. Use prestik and stick 10 big coloured spots on its body. Let the learners look at the picture then cover it. Ask learners to estimate how many spots are there. Give each learner a chance to say how many s/he thinks there are. Uncover the picture and count them. Ask who estimated too many and who estimated too few. Did anyone estimate the correct number?
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Assessment	**Formal :** Formal, recorded Assessment **Informal :** Unrecorded assessment of learners oral responses and ability to participate

Notes: