PROVINCIAL NUMERACY WEEKLY ATTAINMENT TARGETS
SECOND TERM
GRADE 1

INTRODUCTION

The Provincial Numeracy Learner Attainment Targets documents were developed in 2008 by a Provincial Task Team for Grades R – 3. The attainment targets have been developed using the NCS Learning Outcomes and Assessment Standards from the Mathematics Learning Area. These targets indicate the expected level of achievement of learners at the end of each term. The attainment targets have a similar meaning to the 'milestones' in the Foundations for Learning Assessment Framework. The milestones have been infused into the Numeracy Learner Attainment Targets.

In the **Provincial Numeracy Weekly Attainment Targets** the attainment targets for the second term are further broken down into weekly targets. **Teachers should use these weekly targets in conjunction with the Provincial Numeracy Learner Attainment Targets**. The Formal Assessment Tasks referred to as **FAT 1, 2 and 3** are clearly described in Section 3 of the Grade 1 Provincial Numeracy Learner Attainment Targets with the Methods, Forms and Tools for assessment.

The weekly attainment targets have been developed using:
- The Numeracy Learner Attainment Targets as a starting point.
- The NCS Learning Outcomes and Assessment Standards.
- Government Gazette 30880 of 14 March 2008, which outlines the Foundations for Learning Campaign, details the minimum expectations for the teaching of Literacy and Numeracy as well as providing timetabling and resourcing suggestions.
- Foundations for Learning: Foundation Phase Numeracy Lesson Plans.

The weekly attainment targets are intended to assist teachers to pace their teaching, give them guidance when planning their assessment tasks and provide suggestions to enrich teaching practice. If you follow these lessons systematically you will cover the curriculum and reach the milestones for Grade 1.

They are not intended to be prescriptive and teachers are not expected to abandon good practice in order to blindly follow the plans.

The weekly attainment targets provide:
- Weekly targets with recommended number ranges for the second term.
- The NCS Learning Outcomes and Assessment Standards from the Mathematics Learning Area.
- A series of activities for the different components of Numeracy.
- Exemplars of the Formal Assessment Tasks for the second term. These Tasks are indicated as **FAT 1, 2 and 3**.
- Integration within and across other Learning Areas.
- Resources that will be useful to the teacher.
- A template for Reflection and Barriers to Learning.
- An overview of counting activities for the term.

The Provincial Weekly Attainment Targets in conjunction with the Provincial Learner Attainment Targets can therefore be used as clearly defined Lesson Plans although the format is different to the one most teachers are used to. It is recommended that the teacher breaks down the targets for each week into daily steps. However the plans are not prescriptive and allow you to use your own way of presenting the lesson. The **Examples of Activities for Assessment Standards** at the back of the document are rich in practical ideas drawn from best practice and as such can enrich implementation in the classroom.

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ADAPTING THE WEEKLY ATTAINMENT TARGETS
Learners progress at different rates and learn in different ways, and you, as the class teacher, are best able to pace teaching and learning to the needs of the learners. Teachers are free to introduce their own sequence and adapt the number ranges where necessary.

MENTAL MATHS
The Government Gazette No 30880 prescribes that Mental Maths activities should be done daily. Teachers should build Mental Maths activities into their daily Numeracy lessons. You will find learners at different levels of number sense in your class. The Mental Maths activities should meet the needs of all the learners.

RESOURCES
The Government Gazette No 30880 gives a list of recommended resources for Numeracy which schools should endeavour to provide. In addition to exercise books, Learner's books, Workbooks and basic stationery which most schools already provide, the following are highlighted as being especially important for Grade 1:
Counters, number squares/grids, number dice, flard cards (place value cards), small individual abacus, small white boards/chalk boards, shapes, coloured sticks, beads and threads.

DAILY TEACHER ACTIVITIES DURING NUMERACY TIME

		Minutes

1.	**Count with the whole class according to their level**
	   • count using a number square
	   • count on the number line
	   • count forwards and backwards
	   • count forwards and backwards from a given number to a given number
	   • count in multiples
	   • odd and even numbers, etc.
		5

2.	**Oral mental maths and number sense problems**
	   • flash cards with + and – combinations
	   • games such as 'I have ......' 'Who has ......'?
	   • simple oral word problems
	   • doubling and halving etc.
		10

3.	**Giving instructions and hand out books**	5

4.	**Work with group according to their level**
	   • **Concept development (10 minutes)**
	     - data handling
	     - estimation (measurement)
	     - sequencing
	     - 2D and 3D
	     - adding, subtracting, multiplying dividing, etc.
	   • **Problem solving and investigation (15 minutes)**
	     - Pose problem based on concepts being developed
	     - Allow learners to find own solution to problem
	     - Feedback from learners as to how they solved the problem
	     - Discussion on different methods, answers, thinking etc.
	     - Group is given work to do at their desks
		25 x 2
		
		(2 Groups per day)

5.	**Supervision of learners doing independent tasks**	10 x 2
	Total	90

NB. Work with 2 groups every day. While you are working with the groups, the other groups are working independently at their desks. The work they do must be consolidation of concepts already learnt. This independent work needs to be varied.

Government Gazette 30880 of 14 March 2008

Counting

The Government Gazette No 30880 prescribes that counting activities should be done daily. The following table provides an example of counting activities for the second term. Teachers are free to introduce their own sequence and adapt the number ranges where necessary.

OVERVIEW OF COUNTING ACTIVITIES

	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5	WEEK 6	WEEK 7	WEEK 8	WEEK 9	WEEK 10 & 11
COUNTING	Count with the whole class according to their level: Daily rote counting gradually increasing the numbers.									
	Individual counting out objects in the range 0-15			Individual counting out objects in the range 0-20						
	Daily rational counting: Counts forwards and backwards in 1s starting at any number in the range 0-40 using an abacus, number-line or counters.									
	Counts forwards and backwards in 10s from any multiple of 10 in the range 0-40									
	Orders numbers 1st to 10th	Orders numbers 1st to 15th		Orders numbers 1st to 20th						

NUMERACY WEEKLY ATTAINMENT TARGETS
GRADE 1
TERM 2

Week	1	2	3	4	5	Integration within and across
Assessment Standards	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
AS 1: Counts to at least 34 everyday objects reliably.	0-15 Learners count physical objects using one-to-one correspondence reliably in the number range 0-15.	0-15 Learners count physical objects using one-to-one correspondence reliably in the number range 0-15.	0-15 Learners count physical objects using one-to-one correspondence reliably in the number range 0-15.	0-20 Learners count physical objects using one-to-one correspondence reliably in the number range 0–20.	0-20 Learners count physical objects using one-to-one correspondence reliably in the number range 0-20.	LO 1 AS 2 : Counts forwards and backwards in: 2.1 ones from any number between 0 and 100; 2.2 tens from any multiple of 10 between 0 and 100.
AS 2 : Counts forwards and backwards in: 2.1 ones from any number between 0 and 100;	0-40 Learners count forwards and backwards in ones from any given number in the number range 0 – 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) e.g. 22,23,24,… 40, 39, 38,… Learners count in	0-40 Learners count forwards and backwards in ones from any given number in the number range 0 – 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) e.g. 22,23,24,… 40, 39, 38,… Learners count in	**FAT 1: Practical in small groups** The teacher shows number cards in the number range 0 - 40. The learners count on in ones from the given number.	0-40 Learners count forwards and backwards in ones from any given number in the number range 0 – 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete)	0-40 Learners count forwards and backwards in ones from any given number in the number range 0 – 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete)	LO 1 AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34.

Week	1	2	3	4	5	Integration within and across
Assessment Standards	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
	ones from any given number: Count from12 - 32 Count from 40 back to 10.	ones from any given number: Count from12 - 32 Count from 40 back to 10.				
2.2 tens from any multiple of 10 between 0 and 100.	0-40 Learners count forwards and backwards in tens from any given number in the number range 0 - 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) Learners count in tens from a whole ten. e.g. 10,20,….. 40, 30, …	0-40 Learners count forwards and backwards in tens from any given number in the number range 0 - 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) Learners count in tens from a whole ten. e.g. 10,20,….. 40, 30, …	**FAT 1: Practical in small groups** Learners use the abacus to count forwards and backwards in multiples of 10 in the number range 0 - 40.	0-40 Learners count forwards and backwards in tens from any given number in the number range 0 - 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) Learners count in tens from a whole ten.	0-40 Learners count forwards and backwards in tens from any given number in the number range 0 - 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) Learners count in tens from a whole ten.	LO 1 AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34.
AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34.	1 - 20 Learners know and read any number symbols in the number range 1-20. The learners read the symbols on	1 - 30 Learners know and read any number symbols in the number range 1-30. The learners read the symbols on	1 - 30 Learners know and read any number symbols in the number range 1-30. The learners read the symbols on	1 - 40 Learners know and read any number symbols in the number range 1-40. The learners read the symbols on	1 - 40 Learners know and read any number symbols in the number range 1-40. The learners read the symbols on	LO 1: AS 1: Counts to at least 34 everyday objects reliably. AS 4: Orders, describes and compares whole

Week	1	2	3	4	5	Integration within and across
Assessment Standards	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
	number cards, a number grid or a number line. e.g. 17 20 1 - 7 Learners write any number name in the number range 1 – 7. e.g. (7 seven)	number cards, a number grid or a number line. e.g. 27 30 1 - 9 Learners write any number name in the number range 1 – 9. e.g. (9 nine)	number cards, a number grid or a number line. e.g. 27 30 1 - 9 Learners write any number name in the number range 1 – 9. e.g. (9 nine)	number cards, a number grid or a number line. e.g. 37 40 1 - 10 Learners write any number name in the number range 1 – 10. e.g. (10 ten)	number cards, a number grid or a number line. e.g. 37 40 1 - 10 Learners write any number name in the number range 1 – 10. e.g. (10 ten)	numbers to at least 2-digit numbers.
AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers.	0-10 Learners order whole numbers 0-10 in an **ascending** order (smallest to biggest). Learners may use a number grid or a number line. e.g. (10, 1, 4,9) → (1,4,9,10) Learners order whole numbers 0 - 10 in a **descending** order (biggest to smallest). Learners	0-15 Learners order whole numbers 0-15 in an **ascending** order (smallest to biggest). Learners may use a number grid or a number line. e.g. (9, 12, 14, 8) → (8,9,12,14) Learners order whole numbers 0 - 15 in a **descending** order (biggest to smallest). Learners	0-15 Learners order whole numbers 0-15 in an **ascending** order (smallest to biggest). Learners may use a number grid or a number line. e.g. (9, 12, 14, 8) → (8,9,12,14) Learners order whole numbers 0 - 15 in a **descending** order (biggest to smallest). Learners	0-20 Learners order whole numbers 0-20 in an **ascending** order (smallest to biggest). Learners may use a number grid or a number line. e.g. (20, 12, 14, 9) → (12,14,19, 20) Learners order whole numbers 0 - 20 in a **descending** order (biggest to smallest). Learners	0-20 Learners order whole numbers 0-20 in an **ascending** order (smallest to biggest). Learners may use a number grid or a number line. e.g. (20, 12, 14,9) → (12,14,19,20) Learners order whole numbers 0 - 20 in a **descending** order (biggest to smallest). Learners	LO 1: AS 1: Counts to at least 34 everyday objects reliably. AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete

Week	1	2	3	4	5	Integration within and across
Assessment Standards			**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**			
	may use a number grid or a number line. e.g. 4, 7, 1, 10 → 10,7,4,1 Learners describe the position of numbers 0 – 10 using before, after, between. Learners may use a number grid or a number line. e.g. What comes before 10? What comes after 8? What comes between 7 and 9? Learners compare numbers 0 – 10 using more than, less than, biggest , smallest. Learners may use a number grid or a number line. e.g. one more than 4,	may use a number grid or a number line. Learners describe the position of numbers 0 – 15 using before, after, between. Learners may use a number grid or a number line. e.g. What comes before 15? What comes after 12? What comes between 13 and 15? Learners compare numbers 0 – 15 using more than, less than, biggest , smallest. Learners may use a number grid or a number line. e.g. one more than 13, two more than 11 one less than 15 3 more than 12	may use a number grid or a number line. Learners describe the position of numbers 0 – 15 using before, after, between. Learners may use a number grid or a number line. e.g. What comes before 15? What comes after 12? What comes between 13 and 15? Learners compare numbers 0 – 15 using more than, less than, biggest , smallest. Learners may use a number grid or a number line. e.g. one more than 13, two more than 11 one less than 15 3 more than 12 two less than 14 three less than 11	may use a number grid or a number line. e.g. 20, 12, 14, 19 → 20,19,14,12 Learners describe the position of numbers 0 – 20 using before, after, between. Learners may use a number grid or a number line. e.g. What comes before 20? What comes after 19? What comes between 17 and 19? Learners compare numbers 0 – 20 using more than, less than, biggest , smallest. Learners may use a number grid or a number line. e.g.	may use a number grid or a number line. e.g. 20, 12, 14, 19 → 20,19,14,12 Learners describe the position of numbers 0 – 20 using before, after, between. Learners may use a number grid or a number line. e.g. What comes before 20? What comes after 19? What comes between 17 and 19? Learners compare numbers 0 – 20 using more than, less than, biggest , smallest. Learners may use a number grid or a number line. e.g.	apparatus (e.g. counters); 9.4 Using number-lines AS 10: Explains own solutions to problems.

Week	1	2	3	4	5	Integration within and across
Assessment Standards	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
	two more than 7 one less than 6 3 more than 2 two less than 8 three less than 10 which is the biggest 7 or 9? which is the smallest 4 or 2?	two less than 14 three less than 11 which is the biggest 12 or 14? which is the smallest 14 or 12?	which is the biggest 12 or 14? which is the smallest 14 or 12?	one more than 15, two more than 17 one less than 16 3 more than 12 two less than 18 three less than 20 which is the biggest 17 or 19? which is the smallest 18 or 16?	one more than 15, two more than 17 one less than 16 3 more than 12 two less than 18 three less than 20 which is the biggest 17 or 19? which is the smallest 18 or 16?	
AS 6: Solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders.	0-6 Learners solve and explain practical problems involving equal sharing and grouping with and without remainders. e.g. I share 6 sweets equally between 2 girls. How many sweets does each girl get? I share 6 sweets equally between 4 girls. How many sweets does each girl get? 3 boys each have 2 marbles. How many marbles do	0-8 Learners solve and explain practical problems involving equal sharing and grouping with and without remainders. e.g. I share 8 apples among 4 children. How many apples does each child get? I share 7 pears among 2 children. How many pears does each child get? How many pears are left? I have 4 packets with 2 chocolates in	0-8 Learners solve and explain practical problems involving equal sharing and grouping with and without remainders.	0-9 Learners solve and explain practical problems involving equal sharing and grouping with and without remainders. e.g. I share 9 biscuits equally among 4 children. How many biscuits does each child get? Frank has 3 bottles with 3 worms in each bottle. How many worms does he have altogether?	0-9 Learners solve and explain practical problems involving equal sharing and grouping with and without remainders.	LO 1: AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete apparatus (e.g. counters); 9.4 Using number-lines

Week	1	2	3	4	5	Integration within and across
Assessment Standards	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
	they have altogether?	each. How many chocolates are there altogether?				
AS 7: Can perform calculations, using appropriate symbols, to solve problems involving: 7.1 addition and subtraction with whole numbers and solutions to at least 34;	0-7 Learners perform addition and subtraction with whole numbers in the range 0-7 using +, - and =. Learners may use counters or the abacus (concrete apparatus), drawings and number lines (semi-concrete apparatus).	0-7 Learners perform addition and subtraction with whole numbers in the range 0-7 using +, - and =. Learners may use counters or the abacus (concrete apparatus), drawings and number lines (semi-concrete apparatus).	0-8 Learners perform addition and subtraction with whole numbers in the range 0-8 using +, - and =. Learners may use counters or the abacus (concrete apparatus), drawings and number lines (semi-concrete apparatus).	0-8 Learners perform addition and subtraction with whole numbers in the range 0-8 using +, - and =. Learners may use counters or the abacus (concrete apparatus), drawings and number lines (semi-concrete apparatus).	0-9 Learners perform addition and subtraction with whole numbers in the range 0-9 using +, - and =. Learners may use counters or the abacus (concrete apparatus), drawings and number lines (semi-concrete apparatus).	LO 1: AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34. AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete apparatus (e.g. counters); 9.4 Using number-lines. AS 8: Performs **mental calculations** involving addition

Column 1 example:
e.g.
$6+1=\square$, $4+\square=7$,
$5+1+1=\square$, $\square+2=7$,
$7-5=\square$, $7-1=\square$
$7 - 5 - 1 = \square$,
$7 - \square - 1 = 3$

There are 5 bananas in the basket. I put in another 2 bananas. How many bananas are in the basket?

There are 7

Column 2:

Complete the 7	
4	
6	
	3
	5
2	
	1

Column 3 example:
e.g.
$7+1=\square$, $4+\square=8$,
$5+2+1=\square$, $\square+2=8$,
$8-5=\square$, $8-1=\square$
$8 - 5 - 2 = \square$,
$8 - \square - 1 = 3$

There are 5 bananas in the basket. I put in another 3 bananas. How many bananas are in the basket?

There are 8

Column 4:

Complete the 8	
4	
6	
	3
	7
2	
	1
5	

Column 5 example:
e.g.
$6+3=\square$, $7+\square=9$,
$5+2+2=\square$, $\square+8=9$,
$9-5=\square$, $9-1=\square$
$9 - 5 - 2 = \square$, $9 - \square$
$- 1 = 3$

There are 5 bananas in the basket. I put in another 4 bananas. How many bananas are in the basket?

There are 9

Week	1	2	3	4	5	Integration within and across
Assessment Standards	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
	bananas in the basket. The monkey eats 4 bananas. How many bananas are left?		bananas in the basket. The monkey eats 2 bananas. How many bananas are left?		bananas in the basket. The monkey eats 6 bananas. How many bananas are left?	and subtraction for numbers to at least 10. AS 10: Explains own solutions to problems. AS 11: Checks the solution given to problems by peers.
AS 7: Can perform calculations, using appropriate symbols, to solve problems involving: 7.2 repeated addition with whole numbers and with solutions to at least 34;	0- 6 Learners use repeated addition to calculate solutions in the number range 0-6. Learners may use concrete apparatus or drawings. e.g. 2+2+2=☐ 3+3=☐ How many eyes do 3 children have?	0- 8 Learners use repeated addition to calculate solutions in the number range 0-8. Learners may use concrete apparatus or drawings. e.g. 2+2+2+2=☐ 4+4=☐ How many eyes do 4 children have?	0- 8 Learners use repeated addition to calculate solutions in the number range 0-8. Learners may use concrete apparatus or drawings. e.g. 2+2+2+2=☐ 4+4=☐ How many hands do 4 children have?	0- 10 Learners use repeated addition to calculate solutions in the number range 0-10. Learners may use concrete apparatus or drawings. e.g. 2+2+2+2+2=☐ 5+5=☐ How many eyes do 5 children have?	0- 10 Learners use repeated addition to calculate solutions in the number range 0-10. Learners may use concrete apparatus or drawings. e.g. 2+2+2+2+2=☐ 5+5=☐ How many ears do 5 children have?	The same as LO 1 AS 7.1
AS 7: Can perform calculations, using appropriate symbols, to solve problems involving:	Learners estimate the answers to addition and subtraction problems in the range 0-7.	Learners estimate the answers to addition and subtraction problems in the range 0-7. Learners	Learners estimate the answers to addition and subtraction problems in the range 0-8. Learners	Learners estimate the answers to addition and subtraction problems in the range 0-8.	Learners estimate the answers to addition and subtraction problems in the range 0-9.	The same as LO 1 AS 7.1

Week	1	2	3	4	5	Integration within and across
Assessment Standards	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
7.3 estimation	Learners compare the calculated answer with the estimated answer. Estimation should be used by learners continuously throughout all the LO's.	compare the calculated answer with the estimated answer. Estimation should be used by learners continuously throughout all the LO's.	compare the calculated answer with the estimated answer. Estimation should be used by learners continuously throughout all the LO's.	Learners compare the calculated answer with the estimated answer. Estimation should be used by learners continuously throughout all the LO's.	Learners compare the calculated answer with the estimated answer. Estimation should be used by learners continuously throughout all the LO's.	
AS 8: Performs **mental calculations** involving addition and subtraction for numbers to at least 10.	0-5 Learners perform **mental calculations** with addition and subtraction with answers to at least 5. The teacher uses flash cards with number symbols to represent the number combinations e.g. 2+3=☐ 5-3=☐ 2+2=☐ 5-1=☐	0-5 Learners perform **mental calculations** with addition and subtraction with answers to at least 5. The teacher uses flash cards with number symbols to represent the number combinations e.g. 2+3=☐ 5-3=☐ 2+2=☐ 5-1=☐	0-5 Learners perform **mental calculations** with addition and subtraction with answers to at least 5. The teacher uses flash cards with number symbols to represent the number combinations e.g. 2+3=☐ 5-3=☐ 2+2=☐ 5-1=☐	0-5 Learners perform **mental calculations** with addition and subtraction with answers to at least 5. The teacher uses flash cards with number symbols to represent the number combinations e.g. 2+3=☐ 5-3=☐ 2+2=☐ 5-1=☐	0-5 Learners perform **mental calculations** with addition and subtraction with answers to at least 5. The teacher uses flash cards with number symbols to represent the number combinations e.g. 2+3=☐ 5-3=☐ 2+2=☐ 5-1=☐	LO 1: AS 1: Counts to at least 34 everyday objects reliably. AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34. AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers. AS 7: Can perform calculations, using appropriate symbols, to solve problems involving: 7.1 addition and subtraction with whole numbers and solutions to at least

Week	1	2	3	4	5	Integration within and across
Assessment Standards	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
						34; 7.2 repeated addition with whole numbers and with solutions to at least 34; 7.3 estimation. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete apparatus (e.g. counters); 9.4 Using number-lines.
AS 9: Uses the following techniques: 9.1 building up and breaking down numbers	1 – 7 Learners **break down** numbers in the range 1-7. Learners use counters (concrete) and drawings (Semi-concrete). e.g. (7 = 4 + 3, 7 = 2 + 4 + 1) 7 = ☐+☐ 6 = ☐+☐+☐+☐	1 – 8 Learners **break down** numbers in the range 1-8. Learners use counters (concrete) and drawings (Semi-concrete). e.g. (8 = 5 + 3, 8 = 2 + 5 + 1) 8 = ☐+☐ 8 = ☐+☐+☐+☐	1 – 9 Learners **break down** numbers in the range 1-9. Learners use counters (concrete) and drawings (Semi-concrete). e.g. (9 = 4 + 5, 9 = 2 + 4 + 3) 9 = ☐+☐ 9 = ☐+☐+☐+☐	1 – 10 Learners **break down** numbers in the range 1-10 . Learners use counters (concrete) and drawings (Semi-concrete). e.g. (10 = 4 + 6, 10 = 4 + 4 + 2) 8 = ☐+☐ 8 = ☐+☐+☐+☐	1 – 10 Learners **break down** numbers in the range 1-10 . Learners use counters (concrete) and drawings (Semi-concrete). e.g. (9 = 4 + 5, 9 = 4 + 4 + 1) 8 = ☐+☐ 8 = ☐+☐+☐+☐	LO 1: AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers. AS 8: Performs **mental calculations** involving addition and subtraction for numbers to at least

Week	1	2	3	4	5	Integration within and across
Assessment Standards	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
	Learners **build up** numbers in the range 1-7. Learners use counters (concrete) and drawings (Semi-concrete). Learners build up the numbers 5, 6 and 7 $2 + 2 + 1 = 5$, $3 + 3 = 6$ □ + 2 = 6 □+□= 7, □ + 4 = 7 □+□+□ +□ =7	Learners **build up** numbers in the range 1-8. Learners use counters (concrete) and drawings (Semi-concrete). Learners build up the numbers 5, 6, 7 and 8 $2 + 2 + 4 = 8$, $5 + 3 = 8$ □ + 2 = 8 □+□= 8, □ + 3 = 8 □+□+□ +□ =8	Learners **build up** numbers in the range 1-9. Learners use counters (concrete) and drawings (Semi-concrete). Learners build up the numbers 6, 7, 8 and 9 $2 + 2 + 1 = 5$, $5 + 4 = 9$ □ + 2 = 9 □+□= 9, □ + 4 = 9 □+□+□ +□ =9	Learners **build up** numbers in the range 1-10. Learners use counters (concrete) and drawings (Semi-concrete). Learners build up the numbers 6, 7, 8, 9 and 10. $4 + 3 + 1 = 8$, $5 + 3 = 8$ □+□= 10 □+□+□ +□ =10	Learners **build up** numbers in the range 1-10. Learners use counters (concrete) and drawings (Semi-concrete). Learners build up the numbers 6, 7, 8, 9 and 10. $4 + 3 + 1 = 8$, $5 + 3 = 8$ □+□= 10 □+□+□ +□ =10	10.
AS 9: Uses the following techniques: 9.2 doubling and halving	$1 - 6$ Learners double numbers with answers in the number range 1 -6. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Double 3 Double 2	$1 - 6$ Learners double numbers with answers in the number range 1 -6. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Double 3 Double 2	$1 - 7$ Learners double numbers with answers in the number range 1 -7. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Double 3 Double 2	$1 - 7$ Learners double numbers with answers in the number range 1 -7. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Double 3 Double 2	$1 - 8$ Learners double numbers with answers in the number range 1 -8. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Double 3 Double 4	LO 1: AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers. AS 8: Performs **mental calculations** involving addition and subtraction for numbers to at least 10.

Week	1	2	3	4	5	Integration within and across
Assessment Standards	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
	Learners halve numbers without a remainder **(even numbers)** in the number range 1 – 6. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 6 Halve 4 Learners halve numbers with a remainder **(odd numbers)** in the number range 1 – 6. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 5 Halve 3	Learners halve numbers without a remainder **(even numbers)** in the number range 1 – 6. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 6 Halve 4 Learners halve numbers with a remainder **(odd numbers)** in the number range 1 – 6. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 5 Halve 3	Learners halve numbers without a remainder **(even numbers)** in the number range 1 – 7. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 6 Halve 4 Learners halve numbers with a remainder **(odd numbers)** in the number range 1 – 7. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 5 Halve 7	Learners halve numbers without a remainder **(even numbers)** in the number range 1 – 7. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 6 Halve 4 Learners halve numbers with a remainder **(odd numbers)** in the number range 1 – 7. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 5 Halve 7	Learners halve numbers without a remainder **(even numbers)** in the number range 1 – 8. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 6 Halve 8 Learners halve numbers with a remainder **(odd numbers)** in the number range 1 – 8. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 5 Halve 7	

Week	1	2	3	4	5	Integration within and across
Assessment Standards	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
AS 9: Uses the following techniques: 9.3 Using concrete apparatus (e.g. counters)	Learners use concrete apparatus when counting, building up, breaking down, doubling and halving numbers.					
AS 9: Uses the following techniques: 9.4 Using number-lines	Integrate with all number work in the number range 0 – 10.					
AS 10: Explains own solutions to problems.	0 – 6 Learners explain solutions to problems in the number range 0– 6.	0 – 8 Learners explain solutions to problems in the number range 0 – 8.	0 – 8 Learners explain solutions to problems in the number range 0 – 8.	0 – 10 Learners explain solutions to problems in the number range 0-10.	0 – 10 Learners explain solutions to problems in the number range 0-10.	LO 1: AS 6: Solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders. 7.1 addition and subtraction with whole numbers and solutions to at least 34; 7.2 repeated addition with whole numbers and with solutions to at least 34;

Week	1	2	3	4	5	Integration within and across
Assessment Standards	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
						7.3 estimation. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete apparatus (e.g. counters); 9.4 Using number-lines.
AS 11: Checks the solution given to problems by peers.	Learners check each other's solutions to problems in the number range 0– 6.	Learners check each other's solutions to problems in the number range 0 – 8.	Learners check each other's solutions to problems in the number range 0 – 8.	Learners check each other's solutions to problems in the number range 0–10.	Learners check each other's solutions to problems in the number range 0–10.	The same as LO 1 AS 10.

WEEK	1	2	3	4	5	Integration within and across
Assessment Standard	**LO 2: PATTERNS, FUNCTIONS & ALGEBRA**					
AS 1: Copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes).	Learners **use** drawings to copy and extend a pattern. e.g. □★▲□★▲ ··· ····· ···	Learners **use** drawings to copy and extend a pattern. e.g. □★▲□★▲ ··· ····· ···	Learners **use** drawings to copy and extend a pattern. e.g. □★▲□★▲ ··· ····· ···	Learners **use** drawings to copy and extend a pattern. e.g. □★▲□★▲ ··· ····· ···	Learners **use** drawings to copy and extend a pattern. e.g. □★▲□★▲ ··· ····· ···	
AS 2: Copies and extends simple number sequences to at least 100.	0-30 Learners copy and extend simple number sequences in the range 0-30. Learners may use the abacus (concrete apparatus), or number lines and number grids (semi-concrete apparatus). e.g. 30, 28, ---, --- 23,24,25,---, ---, ---, ---, --- 13, 17,21 ---, ---,	0-40 Learners copy and extend simple number sequences in the range 0-40. Learners may use the abacus (concrete apparatus), or number lines and number grids (semi-concrete apparatus). e.g. 40, 30, ---, --- 33,34,35,---, ---, ---, ---, --- 23, 27,31 ---, ---, ---	**FAT 1: Practical in small groups** The teacher gives learners number cards with a number sequence in the number range 0 to 40. Learners copy and complete the pattern.	0-40 Learners copy and extend simple number sequences in the range 0-40. Learners may use the abacus (concrete apparatus), or number lines and number grids (semi-concrete apparatus). e.g. 40, 30, ---, --- 33,34,35,---, ---, ---, ---, --- 23, 27,31 ---, ---	0-40 Learners copy and extend simple number sequences in the range 0-40. Learners may use the abacus (concrete apparatus), or number lines and number grids (semi-concrete apparatus). e.g. 40, 30, ---, --- 33,34,35,---, ---, ----, ---, --- 23, 27,31 ---, ---	LO 1: AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers. AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete

WEEK	1	2	3	4	5	Integration within and across
Assessment Standard						

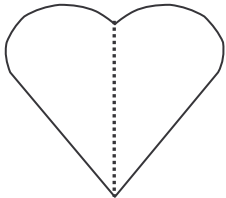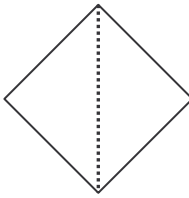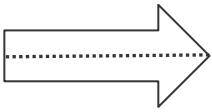| WEEK	1	2	3	4	5	Integration within and across
Assessment Standard	LO 2: PATTERNS, FUNCTIONS & ALGEBRA					
						apparatus (e.g. counters); 9.4 Using number-lines.
AS 3: Creates own patterns.	Learners draw own pattern using drawings or numbers: e.g. ♥❀◉♥❀◉ 10, 9, 8, 7, 6	Learners draw own pattern using drawings or numbers: e.g. ♥❀◉♥❀◉ 2, 4, 6, 8, 10	Learners draw own pattern using drawings or numbers: e.g. ♥❀◉♥❀◉ 10, 8, 6, 4, 2	Learners draw own pattern using drawings or numbers: e.g. ♥❀◉♥❀◉ 3, 6, 9, 12	Learners draw own pattern using drawings or numbers: e.g. ♥❀◉♥❀◉ 12, 9, 6, 3	LO 2: AS 1: Copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes). AS 4: Describes observed patterns. AS 5: Identifies, describes and copies geometric patterns in natural and cultural artifacts of different cultures and times.
AS 4: Describes observed patterns.	Learners describe a given/own pattern.	Learners describe a given/own pattern.	Learners describe a given/own pattern.	Learners describe a given/own pattern.	Learners describe a given/own pattern.	LO 2: AS 1: Copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes). AS 2: Copies and extends simple number sequences to at least 100.

WEEK	1	2	3	4	5	Integration within and across
Assessment Standard	**LO 2: PATTERNS, FUNCTIONS & ALGEBRA**					
						Integration across ARTS & CULTURE LO 1 AS 3.1 Claps and stamps number rhythms and rhymes in tempo. LO 4 AS 4.1 Uses imagination and fantasy to play with and explore shapes, forms, lines, colours and patterns.
AS 5: Identifies, describes and copies geometric patterns in natural and cultural artifacts of different cultures and times.				Learners **describe** familiar geometrical patterns observed in objects and pictures in and around the classroom e.g. bricks on the wall, tiles, patterns on carpets, windows, pictures on the wall.	Learners **describe** familiar geometrical patterns observed in objects and pictures in and around the classroom e.g. bricks on the wall, tiles, patterns on carpets, windows, pictures on the wall.	LO 2: AS 1: Copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes).

Week	1	2	3	4	5	Integration within and across
Assessment Standard	LO 3: SPACE AND SHAPE					
AS 1: Recognizes, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures including: • Boxes (prisms) and balls (spheres); • Triangles and rectangles; • Circles	Learners recognise, identify and name **2-D shapes** in pictures. e.g. circle, rectangle, triangle	Learners recognise, identify and name **2-D shapes** in pictures. e.g. circle, rectangle, triangle	Learners recognise, identify and name **2-D shapes** in pictures. e.g. circle, rectangle, triangle	Learners recognise, identify and name **2-D shapes** in pictures. e.g. circle, rectangle, triangle	Learners recognise, identify and name **2-D shapes** in pictures. e.g. circle, rectangle, triangle	LO 3 AS 2: Describes, sorts and compares physical two-dimensional shapes and three-dimensional objects according to: • size; • objects that roll or slide; • shapes that have straight or round edges. AS 3: Observes and builds given three-dimensional objects using concrete materials (e.g. building blocks and construction sets). **Integration across** ARTS & CILTURE LO 1 AS 1.2 Demonstrates in movement an understanding of numbers and simple geometric shapes

Week	1	2	3	4	5	Integration within and across
Assessment Standard	**LO 3: SPACE AND SHAPE**					
						such as circles, lines, angles and squares. LO 1 AS 4.2 Discovers simple geometric shapes such as circles, lines, triangles and squares and combines and arranges them in patterns. LO 1 AS 4.1 Uses imagination and fantasy to play with and explores shapes, forms, lines, colours and patterns.,
AS 2: Describes, sorts and compares physical two-dimensional shapes and three-dimensional objects according to: • size; • objects that roll or slide; • shapes that have straight or round edges.			Learners describe, sort and compare 2-D shapes according to size. e.g. smallest to biggest □□□□□ biggest to smallest □□□□□	Learners describe, sort and compare 2-D shapes according to size. e.g. smallest to biggest biggest to smallest	Learners describe, sort and compare 2-D shapes according to size. e.g. smallest to biggest biggest to smallest	LO 3 AS 2: Describes, sorts and compares physical two-dimensional shapes and three-dimensional objects according to: • size; • objects that roll or slide; • shapes that have straight or round

Week	1	2	3	4	5	Integration within and across
Assessment Standard	**LO 3: SPACE AND SHAPE**					
						edges. AS 3: Observes and builds given three-dimensional objects using concrete materials (e.g. building blocks and construction sets). **Integration across** ENGLISH HL LO 5 AS 1 Uses language to develop concepts: Demonstrates developing knowledge of concepts such as quantity, size, shape, direction, colour, speed, time, age, sequence; LIFE ORIENTATION LO 4 AS 1 Demonstrates ways of throwing, striking, rolling, bouncing, receiving and moving with a ball or similar equipment.

Week	1	2	3	4	5	Integration within and across
Assessment Standard	**LO 3: SPACE AND SHAPE**					
AS 3: Observes and builds given three-dimensional objects using concrete materials (e.g. building blocks and construction sets).				Learners observe and build freely with any re-usable waste material. Learners may use toilet rolls, boxes and plastic containers of different sizes.	Learners observe and build freely with any re-usable waste material. Learners may use toilet rolls, boxes and plastic containers of different sizes.	LO 3 AS 2: Describes, sorts and compares physical two-dimensional shapes and three-dimensional objects according to: • size; • objects that roll or slide; • shapes that have straight or round edges. AS 3: Observes and builds given three-dimensional objects using concrete materials (e.g. building blocks and construction sets).

Week	1	2	3	4	5	Integration within and across
Assessment Standard	**LO 3: SPACE AND SHAPE**					
AS 4: Recognizes symmetry in self and own environment (with focus on 'left', 'right', 'front' and 'back').			Learners identify symmetry (identical left and right images) in objects in the environment or in drawings, e.g.	Learners identify symmetry (identical left and right images) in objects in the environment or in drawings, e.g.	Learners identify symmetry (identical left and right images) in objects in the environment or in drawings, e.g.	**Integration across** GEOGRAPHY LO 1 AS 3 Indicates direction and position of objects in relation to self (e.g. left, right, in front, behind).
AS 5: Describes one three-dimensional object in relation to another (e.g. 'in front of ' or 'behind').		Learners describe the position of an object in relation to another in a simple picture using left, right, underneath, above, in front of, behind, inside, on top.	Learners describe the position of an object in relation to another in a simple picture using left, right, underneath, above, in front of, behind, inside, on top.	Learners describe the position of an object in relation to another in a simple picture using left, right, underneath, above, in front of, behind, inside, on top.	Learners describe the position of an object in relation to another in a simple picture using left, right, underneath, above, in front of, behind, inside, on top.	**Integration across** GEOGRAPHY LO 1 AS 3 Indicates direction and position of objects in relation to self (e.g. left, right, in front, behind).
AS 6: Follows directions (alone and/or as a member of a group or team) to move or place self within the classroom or three-dimensional objects in relation to each		Learners place themselves in different positions in relation to an object e.g. Stand in front of the chair, stand behind the chair, stand on top of the chair,	Learners place themselves in different positions in relation to an object e.g. Stand in front of the chair, stand behind the chair, stand on top of the chair,	Learners place themselves in different positions in relation to an object e.g. Stand in front of the chair, stand behind the chair, stand on top of the chair,	Learners place themselves in different positions in relation to an object e.g. Stand in front of the chair, stand behind the chair, stand on top of the chair,	**Integration across** ENGLISH HL LO 5 AS 1 Uses language to develop concepts: Demonstrates developing knowledge of concepts such as

Week	1	2	3	4	5	Integration within and across
Assessment Standard	**LO 3: SPACE AND SHAPE**					
other.		stand to the left of the chair, stand to the right of the chair.	stand to the left of the chair, stand to the right of the chair.	stand to the left of the chair, stand to the right of the chair.	stand to the left of the chair, stand to the right of the chair.	quantity, size, shape, direction, colour, speed, time, age, sequence;

Week	1	2	3	4	5	Integration within and across
Assessment Standard	LO 4: MEASUREMENT					
AS 1: Describes the time of day using vocabulary such as 'early', 'late morning', 'afternoon' and 'night'.		Learners describe the time of day using early morning, late morning, afternoon and night. e.g. When do you get dressed for school? When do you play with your friends? When do you go to bed ?	Learners describe the time of day using early morning, late morning, afternoon and night. e.g. When do you get dressed for school? When do you play with your friends? When do you go to bed ?	Learners describe the time of day using early morning, late morning, afternoon and night. e.g. When do you get dressed for school? When do you play with your friends? When do you go to bed ?	Learners describe the time of day using early morning, late morning, afternoon and night. e.g. When do you get dressed for school? When do you play with your friends? When do you go to bed ?	**Integration across** ENGLISH HL LO 5 AS 1 Uses language to develop concepts: Demonstrates developing knowledge of concepts such as quantity, size, shape, direction, colour, speed, time, age, sequence
AS 2: Compares events in terms of the length of time they take (longer, shorter, faster, slower).		Learners compare events according to length of time e.g. What will take the longest? To walk to school or to drive to school?	Learners compare events according to length of time e.g. What will take the longest? To walk to school or to drive to school?	Learners compare events according to length of time e.g. What will take the longest? To walk to school or to drive to school?	Learners compare events according to length of time e.g. What will take the longest? To walk to school or to drive to school?	
AS3: Sequences events using language such as 'yesterday', 'today' and 'tomorrow'.		Learners talk about own experiences using vocabulary yesterday, today and tomorrow.	Learners talk about own experiences using vocabulary yesterday, today and tomorrow.	Learners talk about own experiences using vocabulary yesterday, today and tomorrow.	Learners talk about own experiences using vocabulary yesterday, today and tomorrow.	**Integration across** ENGLISH HL LO 5 AS 1 Uses language to develop concepts: Demonstrates developing knowledge of concepts such as

Week	1	2	3	4	5	Integration within and across
Assessment Standard	LO 4: MEASUREMENT					
						quantity, size, shape, direction, colour, speed, time, age, sequence; Understands and uses the conceptual language of different learning areas necessary at this level and in preparation for the next level.
AS 5: Estimates, measures, compares and orders three-dimensional objects using non-standard measures: • mass (e.g. bricks, sand bags); • capacity (e.g. spoons, cups); • length (e.g. hand				**Mass** Learners **estimate and measure mass of different objects**. Learners use sand bags, blocks e.g. How many blocks do I have to put on this side of the scale to weigh the	**Mass** Learners **estimate and measure mass of different objects**. Learners use sand bags, blocks e.g. How many blocks do I have to put on this side of the scale to weigh the	AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers.

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Week	1	2	3	4	5	Integration within and across
Assessment Standard	**LO 4: MEASUREMENT**					
spans, footsteps				same as the bar of soap on the other side? Learners compare the mass of different objects and order the objects from heaviest to lightest or from lightest to heaviest	same as the bar of soap on the other side? Learners compare the mass of different objects and order the objects from heaviest to lightest or from lightest to heaviest	

Week	1	2	3	4	5	Integration within and across
Assessment Standard	**LO 5: DATA HANDLING**					
AS 1: Collects everyday objects (alone and/or as a member of a group or team) in the classroom and school environment according to given criteria or categories.		Learners collect **objects** from the classroom or their environment according to **sizes** e.g. Collect counters of different sizes.	Learners collect **objects** from the classroom or their environment according to **sizes** e.g. Collect boxes of different sizes.	Learners collect **objects** from the classroom or their environment according to **sizes** e.g. Collect shapes of different sizes.	Learners collect **objects** from the classroom or their environment according to **sizes** e.g. Collect blocks of different sizes.	LO 5 AS 1-5 forms an integrated process.
AS 2: Sorts physical objects according to one attribute chosen for a reason (e.g. 'Sort crayons into colours.').		Learners sort objects from the classroom or their environment. e.g. marbles: big and small	Learners sort objects from the classroom or their environment. e.g. fruit: different types	Learners sort objects from the classroom or their environment. e.g. sticks: long and short.	Learners sort objects from the classroom or their environment. e.g. crayons: different colours.	LO 5 AS 1-5 forms an integrated process. **Integration across** ENGLISH HL LO 5 AS 2: Uses language to think and reason: Understands and uses language for logic and reasoning, such as cause and effect; Classifies information (e.g. groups of different kinds of animals); Identifies similarities and differences, using appropriate

Week	1	2	3	4	5	Integration within and across
Assessment Standard	**LO 5: DATA HANDLING**					
						language (e.g. like, the same as, different from).
AS 3: Gives reasons for collections being grouped in particular ways.		Learners give reasons for grouping collections in a particular way. e.g. small marbles big marbles	Learners give reasons for grouping collections in a particular way. e.g. fruit: apples and oranges	Learners give reasons for grouping collections in a particular way. e.g. short sticks and long sticks	Learners give reasons for grouping collections in a particular way. e.g. red crayons and blue crayons	LO 5 AS 1-5 forms an integrated process. **Integration across** See LO 5 AS 1
AS 4: Draws a picture as a record of collected objects.		Learners draw a picture of their collected objects. e.g. small marbles big marbles	Learners draw a picture of their collected objects. e.g. fruit: apples and pears	Learners draw a picture of their collected objects. e.g. short sticks and long sticks	Learners draw a picture of their collected objects. e.g. red crayons and blue crayons	LO 5 AS 1-5 forms an integrated process.
AS 5: Constructs pictographs where stickers or stamps represent individual elements in a collection of objects.		Learners construct pictographs to show correspondence between collected data (counters) and representation. Learners may use stamps, stickers, or drawings to construct the pictograph.	Learners construct pictographs to show correspondence between collected data (counters) and representation. Learners may use stamps, stickers, or drawings to construct the pictograph.	Learners construct pictographs to show correspondence between collected data (counters) and representation. Learners may use stamps, stickers, or drawings to construct the pictograph.	Learners construct pictographs to show correspondence between collected data (counters) and representation. Learners may use stamps, stickers, or drawings to construct the pictograph.	LO 5 AS 1-5 forms an integrated process. **Integration across** ENGLISH HL LO 5 AS 4: Processes information: Organize information in simple graphical forms such as a chart, timeline, etc.

Week	1	2	3	4	5	Integration within and across
Assessment Standard	LO 5: DATA HANDLING					
		e.g. ⬤ ✓ ✓ ✓ ✓ ◯ ✓ ✓ ✓				
AS 6: Describes own collection of objects, explains how it was sorted, and answers questions about it.		Learners describe, explain and answer questions about the grouping. e.g. Which counters are the most? Which counters are the least? How many counters are there altogether?				

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
AS 1: Counts to at least 34 everyday objects reliably.	0-20 Learners count physical objects using one-to-one correspondence reliably in the number range 0 – 20.	0-20 Learners count physical objects using one-to-one correspondence reliably in the number range 0 – 20.	0-20 Learners count physical objects using one-to-one correspondence reliably in the number range 0 – 20.	0-20 Learners count physical objects using one-to-one correspondence reliably in the number range 0 – 20.		LO 1 AS 2 : Counts forwards and backwards in: 2.1 ones from any number between 0 and 100; 2.2 tens from any multiple of 10 between 0 and 100.
AS 2 : Counts forwards and backwards in: 2.1 ones from any number between 0 and 100;	0-40 Learners count forwards and backwards in ones from any given number in the number range 0 – 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) e.g. 22,23,24,… 40, 39, 38,… Learners count in ones from any given number: Count from12 - 32	0-40 Learners count forwards and backwards in ones from any given number in the number range 0 – 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) e.g. 22,23,24,… 40, 39, 38,… Learners count in ones from any given number: Count from12 - 32	0-40 Learners count forwards and backwards in ones from any given number in the number range 0 – 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) e.g. 22,23,24,… 40, 39, 38,… Learners count in ones from any given number: Count from12 - 32	**FAT 3: Practical in small groups** Learners count forwards and backwards in ones from a given number in the number range 0 - 40. **FAT 3 Written** Learners fill in the missing numbers on a number grid. ✎	Consolidation and intervention.	LO 1 AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
	Count from 40 back to 10.	Count from 40 back to 10.	Count from 40 back to 10.			
2.2 tens from any multiple of 10 between 0 and 100.	0-40 Learners count forwards and backwards in tens from any given number in the number range 0 - 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) Learners count in tens from a whole ten. e.g. 10,20,….. 40, 30, …	0-40 Learners count forwards and backwards in tens from any given number in the number range 0 - 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) Learners count in tens from a whole ten. e.g. 10,20,….. 40, 30, …	0-40 Learners count forwards and backwards in tens from any given number in the number range 0 - 40. Learners may use the abacus or counters (concrete apparatus) or the number line and the number grid (semi-concrete) Learners count in tens from a whole ten. e.g. 10,20,….. 40, 30, …	**FAT 3: Practical in small groups** Learners count forwards and backwards in multiples of ten on the number line or the number grid in the number range 0 - 40.	Consolidation and intervention.	LO 1 AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34.
AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34.	**FAT 2: Practical in small groups** The teacher shows numbers in any order 0-40 and learners recognise and name numbers.	1 - 40 Learners know and read any number symbols in the number range 1-40. The learners read the symbols on number cards, a number grid or a number line.	1 - 40 Learners know and read any number symbols in the number range 1-40. The learners read the symbols on number cards, a number grid or a number line.	**FAT 3: Practical in small groups** The teacher shows numbers on a number grid in the number range 0 - 40. Learners read the number symbols.	Consolidation and intervention.	LO 1: AS 1: Counts to at least 34 everyday objects reliably. AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
		1 - 10 Learners write any number name in the number range 1 – 10.	1 - 10 Learners write any number name in the number range 1 – 10.	**FAT 3: Written** Learners write number names next to the corresponding number symbols in the number range one to ten. ✏		
AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers.	**FAT 2: Practical in small groups** The teacher gives learners 5 number cards in the number range 0-20. The learners order the numbers from the smallest to the biggest number and from the biggest to the smallest number and read the numbers they have packed out, e.g. 9, 14, 16, 18, 19 (smallest to biggest) 19, 18, 16, 14, 9 (biggest to smallest) Use the same number cards. Learners say what	0-20 Learners order whole numbers 0-20 in an **ascending** order (smallest to biggest). Learners may use a number grid or a number line. e.g. (20, 12, 14,9) → (12,14,19,20) Learners order whole numbers 0 - 20 in a **descending** order (biggest to smallest). Learners may use a number grid or a number line.	0-20 Learners order whole numbers 0-20 in an **ascending** order (smallest to biggest). Learners may use a number grid or a number line. e.g. (20, 12, 14,9) → (12,14,19,20) Learners order whole numbers 0 - 20 in a **descending** order (biggest to smallest). Learners may use a number grid or a number line.	**FAT 3: Written** Learners fill in the missing numbers on a worksheet. (Range 0-20) ✏	Consolidation and intervention.	LO 1: AS 1: Counts to at least 34 everyday objects reliably. AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete apparatus (e.g. counters); 9.4 Using number-lines

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
	number comes before/after/ 1 more/ 1 less etc. Repeat with all the numbers in the example above.	e.g. 20, 12, 14, 19 → 20,19,14,12 Learners describe the position of numbers 0 – 20 using before, after, between. Learners may use a number grid or a number line. e.g. What comes before 20? What comes after 19? What comes between 17 and 19? Learners compare numbers 0 – 20 using more than, less than, biggest , smallest. Learners may use a number grid or a number line. e.g. one more than 15,	e.g. 20, 12, 14, 19 → 20,19,14,12 Learners describe the position of numbers 0 – 20 using before, after, between. Learners may use a number grid or a number line. e.g. What comes before 20? What comes after 19? What comes between 17 and 19? Learners compare numbers 0 – 20 using more than, less than, biggest , smallest. Learners may use a number grid or a number line. e.g. one more than 15,			AS 10: Explains own solutions to problems.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
		two more than 17 one less than 16 3 more than 12 two less than 18 three less than 20 which is the biggest 17 or19? which is the smallest 14 or 12?	two more than 17 one less than 16 3 more than 12 two less than 18 three less than 20 which is the biggest 17 or19? which is the smallest 14 or 12?			
AS 5: Solves money problems involving totals and change in rands and cents.	0 – 10 Learners solve money problems in the range 0-10 using R1, R2, R5, R10 and 10c and 5c. Learners may use real or play money. e.g. Learners pack out a given amount such as R10 Learners calculate using addition and subtraction R7 + R3=☐ R9 – R4=☐ Learners solve word	0 – 10 Learners solve money problems in the range 0-10 using R1, R2, R5, R10 and 10c and 5c. Learners may use real or play money. e.g. Learners pack out a given amount such as R10 Learners calculate using addition and subtraction R7 + R3=☐ R9 – R4=☐ Learners solve word	0 – 10 Learners solve money problems in the range 0-10 using R1, R2, R5, R10 and 10c and 5c. Learners may use real or play money. e.g. Learners pack out a given amount such as R10 Learners calculate using addition and subtraction R7 + R3=☐ R9 – R4=☐ Learners solve word	**FAT 3: Practical in small groups** Shop game: The teacher sets up a toy shop. Different toys with different prices in the range from R1 to R10. Learners choose 2 items to buy and calculate the prices to determine how much he/she must pay, e.g. Ball: R5 , Car: R3 Total: R8 Learners pack out the amount to pay with real or play	Consolidation and intervention.	LO 1: AS 2 : Counts forwards and backwards in: 2.1 ones from any number between 0 and 100; 2.2 tens from any multiple of 10 between 0 and 100. AS 7: Can perform calculations, using appropriate symbols, to solve problems involving: 7.1 addition and subtraction with whole numbers and solutions to at least 34; 7.2 repeated

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
	problems such as: I have R10. I want to buy sweets for R7. How much change will I get?	problems such as: I have R10. I want to buy sweets for R7. How much change will I get?	problems such as: I have R10. I want to buy sweets for R7. How much change will I get?	money. R5 + R2 + R1 → R8 The teacher poses question e.g. If I pay with a R10 note, how much change will I get? HINT: Learners draw or write their calculations in their class workbooks, on slates or white boards.		addition with whole numbers and with solutions to at least 34; 7.3 estimation. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete apparatus (e.g. counters); 9.4 Using number-lines. AS 8: Performs **mental calculations** involving addition and subtraction for numbers to at least 10. AS 10: Explains own solutions to problems. **Integration across** EMS

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
						LO 1 AS 3: Identifies the value of the different units of money used to buy things.
AS 6: Solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders.	0 -10 Learners solve and explain practical problems involving equal sharing and grouping with and without remainders in the range 0-10. Learners may use counters and the abacus (concrete apparatus) or drawings (semi-concrete). e.g. I share 9 balloons amongst 4 children. How many balloons does each one get? How many balloons are left? There are 3 packets with 3 marbles in a packet. How many marbles altogether?	0 -10 Learners solve and explain practical problems involving equal sharing and grouping with and without remainders in the range 0-10. Learners may use counters and the abacus (concrete apparatus) or drawings (semi-concrete). e.g. I share 9 balloons amongst 4 children. How many balloons does each one get? How many balloons are left? There are 3 packets with 3 marbles in a packet. How many marbles altogether?	0 -10 Learners solve and explain practical problems involving equal sharing and grouping with and without remainders in the range 0-10. Learners may use counters and the abacus (concrete apparatus) or drawings (semi-concrete). e.g. I share 9 balloons amongst 4 children. How many balloons does each one get? How many balloons are left? There are 3 packets with 3 marbles in a packet. How many marbles altogether?	**FAT 3: Practical in small groups** The teacher asks word problems in the number range 0 - 10. Learners may use concrete apparatus or draw to solve the problems. I share 9 toffees amongst 3 friends. How many toffees does each friend get? I share 9 balloons amongst 4 friends. How many balloons does each friend get and how many balloons are left? There are 3 packets with 3 sweet in each packet. How many	Consolidation and intervention.	LO 1 AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete apparatus (e.g. counters); 9.4 Using number-lines.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
				sweets are there altogether? HINT: Learners draw or write their calculations in their class workbooks, on slates or white boards		
AS 7: Can perform calculations, using appropriate symbols, to solve problems involving: 7.1 addition and subtraction with whole numbers and solutions to at least 34	0-9 Learners perform addition and subtraction with whole numbers in the range 0-9 using +, - and =. Learners may use counters or the abacus (concrete apparatus), drawings and number lines (semi-concrete apparatus). e.g. 6+3=□, 7+□=9, 5+2+2=□, □+8=9, 9-5=□, 9-1=□ 9 – 5 - 2 = □, 9 - □ - 1 = 3	0-10 Learners perform addition and subtraction with whole numbers in the range 0-10 using +, - and = . Learners may use counters or the abacus (concrete apparatus), drawings and number lines (semi-concrete apparatus). e.g. 6+4=□, 7+□=10, 5+2+1=□, □+8=10, 10-5=□, 7-1=□ 10 – 5 -2 = □, 7 - □ - 1 = 3	0-10 Learners perform addition and subtraction with whole numbers in the range 0-10 using +, - and = . Learners may use counters or the abacus (concrete apparatus), drawings and number lines (semi-concrete apparatus). e.g. 6+4=□, 7+□=10, 5+2+1=□, □+8=10, 10-5=□, 7-1=□ 10 – 5 -2 = □, 7 - □ - 1 = 3	**FAT 3: Practical in small groups** The teacher asks word problems in the number range 0 -10. (+ and -). The learners may use concrete apparatus or drawings to calculate their answers. I have 6 sweets. Mommy gives me 3 more sweets. How many sweets do I have? I have 8 sweets. I eat 2 sweets. How many sweets are left? HINT: Learners	Consolidation and intervention.	LO 1: AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34. AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete apparatus (e.g.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					

LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS

Week	6	7	8	9	10 & 11	Integration within and across
	There are 5 bananas in the basket. I put in another 4 bananas. How many bananas are in the basket? There are 9 bananas in the basket. The monkey eats 6 bananas. How many bananas are left?	There are 7 bananas in the basket. I put in another 3 bananas. How many bananas are in the basket? There are 10 bananas in the basket. The monkey eats 4 bananas. How many bananas are left?	There are 5 bananas in the basket. I put in another 3 bananas. How many bananas are in the basket? There are 9 bananas in the basket. The monkey eats 4 bananas. How many bananas are left?	draw or write their calculations in their class workbooks, on slates or white boards. **FAT 3: Written** Learners complete the calculations using addition and subtraction in the number range 0 - 10.		counters); 9.4 Using number-lines. AS 8: Performs **mental calculations** involving addition and subtraction for numbers to at least 10. AS 10: Explains own solutions to problems. AS 11: Checks the solution given to problems by peers.

Complete the 9

4	
6	
	3
	7
2	
	1
5	
8	

Complete the 10

4	
6	
	3
	7
9	
	1
2	
8	
	5

Week	6	7	8	9	10 & 11	Integration within and across
AS 7: Can perform calculations, using appropriate symbols, to solve problems involving: 7.2 repeated addition with whole	**FAT 2: Practical in small groups** The teacher asks word problems in the number range 0 - 10. (Repeated addition). Learners	0- 10 Learners use repeated addition to calculate solutions in the number range	0- 10 Learners use repeated addition to calculate solutions in the number range		Consolidation and intervention.	The same as LO 1 AS 7.1.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	<td colspan="6">**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**</td>
numbers and with solutions to at least 34	may use concrete apparatus or drawings to calculate answers. There are 3 children. How many eyes do you see? There are 2 vases. There are 5 roses in each vase. How many roses are there altogether? HINT: Learners draw or write their calculations in their class workbooks, on slates or white boards.	0-10. Learners may use concrete apparatus or drawings. e.g. 3 + 3 + 3=□ How many wheels do 3 tricycles have?	0-10. Learners may use concrete apparatus or drawings. e.g. 4 + 4 =□ How many legs do 2 dogs have?			
AS 7: Can perform calculations, using appropriate symbols, to solve problems involving: 7.3 estimation	0 - 20 Learners estimate the answers to addition and subtraction problems in the range 0-20.Learners compare the calculated answer with the estimated	0 - 20 Learners estimate the answers to addition and subtraction problems in the range 0-20.Learners compare the calculated answer with the estimated	0 - 20 Learners estimate the answers to addition and subtraction problems in the range 0-20.Learners compare the calculated answer with the estimated	0 - 20 Learners estimate the answers to addition and subtraction problems in the range 0-20.Learners compare the calculated answer with the estimated answer. Estimation		The same as LO 1 AS 7.1.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
	answer. Estimation should be used by the learners continuously throughout all the LO's.	answer. Estimation should be used by the learners continuously throughout all the LO's.	answer. Estimation should be used by the learners continuously throughout all the LO's.	should be used by the learners continuously throughout all the LO's.		
AS 8: Performs **mental calculations** involving addition and subtraction for numbers to at least 10.	**FAT 2: Practical in small groups** The teacher shows cards with plus and minus calculations from 0-5, e.g. 2 + 3 = ☐ 4 - 2 = ☐ etc. Initially learners may use concrete apparatus to determine answers, but strive to do the calculations without concrete help.	0-5 Learners perform **mental calculations** with addition and subtraction with answers to at least 5. The teacher uses flash cards with number symbols to represent the number combinations e.g. 2+3=☐ 5-3=☐ 2+2=☐ 5-1=☐	0-5 Learners perform **mental calculations** with addition and subtraction with answers to at least 5. The teacher uses flash cards with number symbols to represent the number combinations e.g. 2+3=☐ 5-3=☐ 2+2=☐ 5-1=☐	**FAT 3: Practical in small groups** The teacher shows cards with plus and minus calculations from 0-5, e.g. 2 + 3 = ☐ 4 - 2 = ☐ etc	Consolidation and intervention.	LO 1: AS 1: Counts to at least 34 everyday objects reliably. AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34. AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers. AS 7: Can perform calculations, using appropriate symbols, to solve problems involving: 7.1 addition and subtraction with whole numbers and solutions to at least 34; 7.2 repeated

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
						addition with whole numbers and with solutions to at least 34; 7.3 estimation. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete apparatus (e.g. counters); 9.4 Using number-lines.
AS 9: Uses the following techniques: 9.1 building up and breaking down numbers	**FAT 2: Practical in small groups** The teacher gives each learner a different number in the number range 1 to10. The learners break down the specific number using counters or drawings. The learners can write the different	1 – 10 Learners **break down** numbers in the range 1-10. Learners use counters (concrete) and drawings (Semi-concrete). e.g. (9 = 4 + 5, 9 = 4 + 4 + 1) 8 = □+□ 8 = □+□+□+□	1 – 10 Learners **break down** numbers in the range 1-10. Learners use counters (concrete) and drawings (Semi-concrete). e.g. (9 = 4 + 5, 9 = 4 + 4 + 1) 8 = □+□ 8 = □+□+□+□	**FAT 3: Written** Learners build up any number in the number range 1 - 10. ✏	Consolidation and intervention.	LO 1: AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers. AS 8: Performs **mental calculations** involving addition and subtraction for numbers to at least 10.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
	combinations. . The teacher gives each learner a different number in the number range 1 to10. The learners build up the specific number using counters or drawings. The learners can write the different combinations. . HINT: The learners write in their class workbooks, on slates or white boards.	Learners **build up** numbers in the range 1-10. Learners use counters (concrete) and drawings (Semi-concrete). e.g. The teacher shows the learners the number symbols 8, 10, etc. Learners build up the number 5. 4 + 3 + 1 = 8, 5 + 3 = 8 □+□= 10 □+□+□ +□ =10	Learners **build up** numbers in the range 1-10. Learners use counters (concrete) and drawings (Semi-concrete). e.g. The teacher shows the learners the number symbols 8, 10, etc. Learners build up the number 5. 4 + 3 + 1 = 8, 5 + 3 = 8 □+□= 10 □+□+□ +□ =10			
AS 9: Uses the following techniques: 9.2 doubling and halving	1 – 10 Learners double numbers with answers in the number range 1 - 10. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete).	1 – 10 Learners double numbers with answers in the number range 1 - 10. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete).	1 – 10 Learners double numbers with answers in the number range 1 - 10. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete).	**FAT 3: Practical in small groups** The learners double the numbers 1 to 5. The learners halve the numbers 1 to 10. The learners may use counters, the abacus or drawings and the number line.	Consolidation and intervention.	LO 1: AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers. AS 8: Performs **mental calculations** involving addition and subtraction for numbers to at least

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
	e.g. Double 5 Double 4 Learners halve numbers without a remainder **(even numbers)** in the number range 1 – 10. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 8 Halve 10 Learners halve numbers with a remainder **(odd numbers)** in the number range 1 – 10. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete).	e.g. Double 5 Double 4 Learners halve numbers without a remainder **(even numbers)** in the number range 1 – 10. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 8 Halve 10 Learners halve numbers with a remainder **(odd numbers)** in the number range 1 – 10. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete).	e.g. Double 5 Double 4 Learners halve numbers without a remainder **(even numbers)** in the number range 1 – 10. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete). e.g. Halve 8 Halve 10 Learners halve numbers with a remainder **(odd numbers)** in the number range 1 – 10. Learners may use counters or the abacus (concrete apparatus), or drawings, number lines (semi-concrete).	HINT: The learners write in their class workbooks, on slates or white boards.		10.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS**					
	e.g. Halve 7 Halve 5 Halve 9	e.g. Halve 7 Halve 5 Halve 9	e.g. Halve 7 Halve 5 Halve 9			
AS 9: Uses the following techniques: 9.3 Using concrete apparatus (e.g. counters)	Learners use concrete apparatus when counting, building up, breaking down, doubling and halving numbers.					
AS 9: Uses the following techniques: 9.4 Using number-lines	Integrate with all number work in the number range 0 – 10.					
AS 10: Explains own solutions to problems.	0 – 10 Learners explain solutions to problems in the number range 0 - 10.	0 – 10 Learners explain solutions to problems in the number range 0 - 10.	0 – 10 Learners explain solutions to problems in the number range 0 - 10.	0 – 10 Learners explain solutions to problems in the number range 0 - 10.	Consolidation and intervention.	LO 1: AS 6: Solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders. 7.1 addition and subtraction with whole numbers and solutions to at least 34;

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 1: NUMBERS, OPERATIONS & RELATIONSHIPS					
						7.2 repeated addition with whole numbers and with solutions to at least 34; 7.3 estimation. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 concrete apparatus (e.g. counters); 9.4 number-lines.
AS 11: Checks the solution given to problems by peers.	Learners check each other's solutions to problems in the number range 0 – 10.	Learners check each other's solutions to problems in the number range 0 – 10.	Learners check each other's solutions to problems in the number range 0 – 10.	Learners check each other's solutions to problems in the number range 0 – 10.		See LO 1 AS 10.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 2: PATTERNS, FUNCTIONS & ALGEBRA					
AS 1: Copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes).	**FAT 2: Written** Learners copy and extend different shape patterns. ✎ Learners use drawings to copy and extend a pattern.				Consolidation and intervention.	
AS 2: Copies and extends simple number sequences to at least 100	**FAT 2: Practical in small groups** The teacher gives learners number cards with a number sequence in the number range 0 to 40. Learners copy and complete the pattern.	0-40 Learners copy and extend simple number sequences in the range 0-40. Learners may use the abacus (concrete apparatus), or number lines and number grids (semi-concrete apparatus). e.g. 40, 30, ---, --- 33,34,35,---, ---, ---, ---, --- 23, 27,31 ---, ---	0-40 Learners copy and extend simple number sequences in the range 0-40. Learners may use the abacus (concrete apparatus), or number lines and number grids (semi-concrete apparatus). e.g. 40, 30, ---, --- 33,34,35,---, ---, ---,, ---, --- 23, 27,31 ---, ---	**FAT 3: Written** Learners copy and extend given number sequences in the number range 0 to 40. ✎	Consolidation and intervention.	LO 1: AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers. AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34. AS 9: Uses the following techniques: 9.1 building up and breaking down numbers; 9.2 doubling and halving; 9.3 Using concrete apparatus (e.g. counters); 9.4 Using number-lines.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 2: PATTERNS, FUNCTIONS & ALGEBRA**					
AS 3: Creates own patterns.	Learners draw own pattern using drawings or numbers: e.g. ♥❀◉♥❀◉ 5, 10, 15, 20	Learners draw own pattern using drawings or numbers: e.g. ♥❀◉♥❀◉ 20, 15, 10, 5	Learners draw own pattern using drawings or numbers: e.g. ♥❀◉♥❀◉ 4, 8, 12, 16	**FAT 3: Written** Learners draw their own pattern. ✐	Consolidation and intervention.	LO 2: AS 1: Copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes). AS 4: Describes observed patterns. AS 5: Identifies, describes and copies geometric patterns in natural and cultural artifacts of different cultures and times.
AS 4: Describes observed patterns	Learners describe a given/own pattern. e.g. objects drawings numbers	Learners describe a given/own pattern. e.g. objects drawings numbers	Learners describe a given/own pattern. e.g. objects drawings numbers	**FAT 3: Practical in small groups** The learners describe their own pattern. The teacher gives each learner a different number pattern. The learners describe the given pattern.	Consolidation and intervention.	LO 2: AS 1: Copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes). AS 2: Copies and extends simple number sequences to at least 100. **Integration across** ARTS & CULTURE LO 1 AS 3.1 Claps

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	with LO 2					
						and stamps number rhythms and rhymes in tempo. LO 4 AS 4.1 Uses imagination and fantasy to play with and explore shapes, forms, lines, colours and patterns.
AS 5: Identifies, describes and copies geometric patterns in natural and cultural artifacts of different cultures and times		Learners **describe** familiar geometrical patterns observed in objects and pictures in and around the classroom e.g. bricks on the wall, tiles, patterns on carpets, windows, pictures on the wall.	Learners **describe** familiar geometrical patterns observed in objects and pictures in and around the classroom e.g. bricks on the wall, tiles, patterns on carpets, windows, pictures on the wall.	Learners **describe** familiar geometrical patterns observed in objects and pictures in and around the classroom e.g. bricks on the wall, tiles, patterns on carpets, windows, pictures on the wall.		LO 2: AS 1: Copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes).

Assessment Standard row header: **LO 2: PATTERNS, FUNCTIONS & ALGEBRA**

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 3: SPACE AND SHAPE**					
AS 1: Recognizes, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures including: • Boxes (prisms) and balls (spheres) • Triangles and rectangles and circles		Learners recognise, identify and name **2-D shapes** in pictures. e.g. circle, rectangle, triangle	Learners recognise, identify and name **2-D shapes** in pictures. e.g. circle, rectangle, triangle	**FAT 3: Practical in small groups** Learners name **2D-shapes.** **FAT 3: Written** Learners identify the **2D -shapes** within a given picture. ✎	Consolidation and intervention.	LO 3 AS 2: Describes, sorts and compares physical two-dimensional shapes and three-dimensional objects according to: • size; • objects that roll or slide; • shapes that have straight or round edges. AS 3: Observes and builds given three-dimensional objects using concrete materials (e.g. building blocks and construction sets). **Integration across** ARTS & CILTURE LO 1 AS 1.2 Demonstrates in movement an understanding of numbers and simple geometric shapes such as circles, lines, angles and squares.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 3: SPACE AND SHAPE**					LO 1 AS 4.2 Discovers simple geometric shapes such as circles, lines, triangles and squares and combines and arranges them in patterns. LO 1 AS 4.1 Uses imagination and fantasy to play with and explores shapes, forms, lines, colours and patterns.,
AS 2: Describes, sorts and compares physical two-dimensional shapes and three-dimensional objects according to: • size; • objects that roll or slide; • shapes that have straight or round edges.		Learners describe, sort and compare 2-D shapes according to size. e.g. smallest to biggest biggest to smallest	Learners describe, sort and compare 2-D shapes according to size. e.g. s smallest to biggest biggest to smallest			LO 3 AS 2: Describes, sorts and compares physical two-dimensional shapes and three-dimensional objects according to: • size; • objects that roll or slide; • shapes that have straight or round edges. AS 3: Observes and builds given three-dimensional objects

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 3: SPACE AND SHAPE					
						using concrete materials (e.g. building blocks and construction sets). **Integration across** ENGLISH HL LO 5 AS 1 Uses language to develop concepts: Demonstrates developing knowledge of concepts such as quantity, size, shape, direction, colour, speed, time, age, sequence; LIFE ORIENTATION LO 4 AS 1 Demonstrates ways of throwing, striking, rolling, bouncing, receiving and moving with a ball or similar equipment.
AS 3: Observes and builds given three-dimensional objects using concrete materials (e.g. building blocks and		Learners observe and build freely with any re-usable waste material. Learners may use toilet rolls, boxes and plastic	Learners observe and build freely with any re-usable waste material. Learners may use toilet rolls, boxes and plastic			LO 3 AS 2: Describes, sorts and compares physical two-dimensional shapes

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 3: SPACE AND SHAPE**					
construction sets).		containers of different sizes.	containers of different sizes.			and three-dimensional objects according to: • size; • objects that roll or slide; • shapes that have straight or round edges. AS 3: Observes and builds given three-dimensional objects using concrete materials (e.g. building blocks and construction sets).
AS 4: Recognizes symmetry in self and own environment (with focus on 'left', 'right', 'front' and 'back').		Learners identify symmetry (identical left and right images) in objects in the environment or in drawings. e.g. β	Learners identify symmetry (identical left and right images) in objects in the environment or in drawings. e.g. β	Learners identify symmetry (identical left and right images) in objects in the environment or in drawings. e.g. β	Consolidation and intervention.	**Integration across** GEOGRAPHY LO 1 AS 3 Indicates direction and position of objects in relation to self (e.g. left, right, in front, behind).
AS 5: Describes one three-dimensional object in relation to		Learners describe the position of an object in relation to another in a simple	Learners describe the position of an object in relation to another in a simple	Learners describe the position of an object in relation to another in a simple	Consolidation and intervention.	**Integration across** GEOGRAPHY LO 1 AS 3 Indicates direction
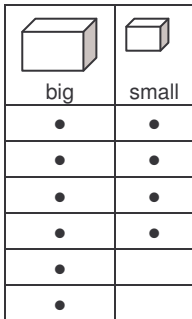
Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 3: SPACE AND SHAPE					
another (e.g. 'in front of ' or 'behind').		picture using left, right, underneath, above, in front of, behind, inside, on top	picture using left, right, underneath, above, in front of, behind, inside, on top	picture using left, right, underneath, above, in front of, behind, inside, on top		and position of objects in relation to self (e.g. left, right, in front, behind).
AS 6: Follows directions (alone and/or as a member of a group or team) to move or place self within the classroom or three-dimensional objects in relation to each other.		Learners place themselves in different positions in relation to an object e.g. Stand in front of the chair, stand behind the chair, stand on top of the chair, stand to the left of the chair, stand to the right of the chair	Learners place themselves in different positions in relation to an object e.g. Stand in front of the chair, stand behind the chair, stand on top of the chair, stand to the left of the chair, stand to the right of the chair	Learners place themselves in different positions in relation to an object e.g. Stand in front of the chair, stand behind the chair, stand on top of the chair, stand to the left of the chair, stand to the right of the chair	Consolidation and intervention.	**Integration across** ENGLISH HL LO 5 AS 1 Uses language to develop concepts: Demonstrates developing knowledge of concepts such as quantity, size, shape, direction, colour, speed, time, age, sequence;

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 4: MEASUREMENT					
AS 1: Describes the time of day using vocabulary such as 'early', 'late morning', 'afternoon' and 'night'.	Learners describe the time of day using early morning, late morning, afternoon and night. e.g. When do you get dressed for school? When do you play with your friends? When do you go to bed to sleep?	Learners describe the time of day using early morning, late morning, afternoon and night. e.g. When do you get dressed for school? When do you play with your friends? When do you go to bed to sleep?	Learners describe the time of day using early morning, late morning, afternoon and night. e.g. When do you get dressed for school? When do you play with your friends? When do you go to bed to sleep?	Learners describe the time of day using early morning, late morning, afternoon and night. e.g. When do you get dressed for school? When do you play with your friends? When do you go to bed to sleep?	Consolidation and intervention.	**Integration across** ENGLISH HL LO 5 AS 1 Uses language to develop concepts: Demonstrates developing knowledge of concepts such as quantity, size, shape, direction, colour, speed, time, age, sequence
AS 2: Compares events in terms of the length of time they take (longer, shorter, faster, slower).	Learners compare events according to length of time e.g. What will take the longest? To walk to school or to drive to school?	Learners compare events according to length of time e.g. What will take the longest? To walk to school or to drive to school?	Learners compare events according to length of time e.g. What will take the longest? To walk to school or to drive to school?	Learners compare events according to length of time e.g. What will take the longest? To walk to school or to drive to school?	Consolidation and intervention.	
AS 3: Sequences events using language such as 'yesterday', 'today' and 'tomorrow'.	Learners talk about own experiences using vocabulary yesterday, today and tomorrow.	Learners talk about own experiences using vocabulary yesterday, today and tomorrow.	Learners talk about own experiences using vocabulary yesterday, today and tomorrow.	Learners talk about own experiences using vocabulary yesterday, today and tomorrow.	Consolidation and intervention.	**Integration across** ENGLISH HL LO 5 AS 1 Uses language to develop concepts: Demonstrates developing knowledge of concepts such as quantity, size, shape, direction, colour, speed, time, age, sequence;

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	LO 4: MEASUREMENT					
						Understands and uses the conceptual language of different learning areas necessary at this level and in preparation for the next level.
AS 5: Estimates, measures, compares and orders three-dimensional objects using non-standard measures: • mass (e.g. bricks, sand bags); • capacity (e.g. spoons, cups); • length (e.g. hand spans, footsteps	**FAT 2: Practical in small groups** The teacher provides a balancing scale with blocks, as well as objects with different mass to weigh, e.g. a rubber, a ruler, a pritt stick, a key, etc. Learners estimate how many blocks they will need to balance the scale to weigh the same as the objects on the other side. They record their estimation. The learners count how many blocks will weigh the same as the object on the other side of the				Consolidation and intervention.	AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 4: MEASUREMENT**					
	balancing scale. **FAT 2: Written** Learners write their estimations and the mass in blocks next to pictures on a worksheet. The learners answer questions about their findings, e. g. which is the heaviest, which is the lightest etc. ✎					

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard			LO 5: DATA HANDLING			
AS 1: Collects everyday objects (alone and/or as a member of a group or team) in the classroom and school environment according to given criteria or categories.		Learners collect **objects** from the classroom or their environment according to **sizes** e.g. Collect counters of different sizes.	Learners collect **objects** from the classroom or their environment according to **sizes** e.g. Collect counters of different sizes.	**FAT 3: Practical in small groups** The learners collect boxes of different sizes.	Consolidation and intervention.	LO 5 AS 1-5 forms an integrated process.
AS 2: Sorts physical objects according to one attribute chosen for a reason (e.g. 'Sort crayons into colours.').		Learners sort objects from the classroom or their environment. e.g. counters: big and small	Learners sort objects from the classroom or their environment. e.g. counters: big and small	**FAT 3: Practical in small groups** Learners sort the boxes according to size.	Consolidation and intervention.	LO 5 AS 1-5 forms an integrated process. **Integration across** ENGLISH HL LO 5 AS 2: Uses language to think and reason: Understands and uses language for logic and reasoning, such as cause and effect; Classifies information (e.g. groups of different kinds of animals); Identifies similarities and differences, using appropriate language (e.g. like, the same as,

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	**LO 5: DATA HANDLING**					
						different from).
AS 3: Gives reasons for collections being grouped in particular ways.		Learners give reasons for grouping collections in a particular way. e.g. small counters big counters	Learners give reasons for grouping collections in a particular way. e.g. small counters big counters			LO 5 AS 1-5 forms an integrated process. **Integration across** See LO 5 AS 1
AS 4: Draws a picture as a record of collected objects.		Learners draw a picture of their collected objects. e.g. big counters small counters	Learners draw a picture of their collected objects. e.g. big counters small counters	**FAT 3: Written** Learners draw a picture of the big, medium and small boxes collected. 🖉	Consolidation and intervention.	LO 5 AS 1-5 forms an integrated process.
AS 5: Constructs pictographs where stickers or stamps represent individual elements in a collection of objects.		Learners construct pictographs to show correspondence between collected data (counters) and representation. Learners may use stamps, stickers, or drawings to construct the pictograph.	Learners construct pictographs to show correspondence between collected data (counters) and representation. Learners may use stamps, stickers, or drawings to construct the pictograph.	**FAT 3: Written** Learners make a pictograph to show the number of big, medium and small boxes they have collected. big small • • • • • • • • • •	Consolidation and intervention.	LO 5 AS 1-5 forms an integrated process. **Integration across** ENGLISH HL LO 5 AS 4: Processes information: Organize information in simple graphical forms such as a chart, timeline, etc.

Week	6	7	8	9	10 & 11	Integration within and across
Assessment Standard	<td colspan="5" align="center">**LO 5: DATA HANDLING**</td>					
AS 6: Describes own collection of objects, explains how it was sorted, and answers questions about it.		Learners describe, explain and answer questions about the grouping. e.g. Which counters are the most? Which counters are the least? How many counters are there altogether?	Learners describe, explain and answer questions about the grouping. e.g. Which counters are the most? Which counters are the least? How many counters are there altogether?	**FAT 3: Written** The teacher asks questions about their groupings. Which are the most? Which are the least? How many more big boxes than small boxes, etc. 🖉	Consolidation and intervention.	

REFLECTION:

WEEK 1	
WEEK 2	
WEEK 3	
WEEK 4	
WEEK 5	
WEEK 6	
WEEK 7	
WEEK 8	
WEEK 9	

WEEK 10 & 11	

BARRIERS TO LEARNING:

WEEK 1	
WEEK 2	
WEEK 3	
WEEK 4	
WEEK 5	
WEEK 6	
WEEK 7	

WEEK 8	
WEEK 9	
WEEK 10 & 11	

RESOURCES:

WEEK 1	
WEEK 2	
WEEK 3	
WEEK 4	
WEEK 5	

WEEK 6	
WEEK 7	
WEEK 8	
WEEK 9	
WEEK 10 & 11	

EXAMPLES OF ACTIVITIES FOR ASSESSMENT STANDARDS

Note: Refer to the Weekly Attainment Targets for recommended weekly number ranges.

TEACHING AND LEARNING ACTIVITES
LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

AS 1: Counts to at least 34 everyday objects reliably.

- The learners must understand that:
    - the 'how many' of a collection of objects is determined by the last number that was counted;
    - 'counting on' is based on adding another object to the objects which are counted (+ 1);
    - 'counting backwards' is based on taking away another object from the objects which are used for counting.
- Start with counting rhymes, e.g.
    - One, two, three
      Peter climbs in a tree;
      Four, five, six
      Now he is in a fix.
    - One, two, three, four, five
      Once I caught a fish alive;
      Six, seven, eight, nine, ten
      Then I let it go again.
- Count out e.g. 12 blocks in a box, 12 toothpicks in a row, 12 beads on a string. Ask the learners if the collections look the same. If they have the same number of objects.
- Count footsteps, jumps, steps from one point to another.
- Ask the learners, e.g. to touch their toes 11 times, to jump up 7 times and to clap their hands 10 times.
- Count the steps, bicycles and motorcars at the school.
- Count the boys, the girls, the tables, the chairs in the classroom.
- Count how many of the same object is there in a picture e.g. flowers, birds, trees,
- Count the books, scissors, pencils in the classroom.
- Use old magazines and ask the learners to cut out 7 pictures of animals and 12 pictures of people.

TEACHING AND LEARNING ACTIVITES
LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

- Ask the learners to draw 17 balls and 15 stars.
- Count the beads on the counting frame.

Note: Counting activities should always be preceded by estimation.

AS 2 : Counts forwards and backwards in:

2.1 ones from any number between 0 and 100;
2.2 tens from any multiple of 10 between 0 and 100.

- In ones from any number between 0 and 40:
  - use the counting frame and count the number of beads; count on (+ 1) and count back (- 1) from that number;
  - start at any number and count on to another number (as asked) and then back again;
  - count on and back in different number ranges, e.g. the range from 11 to 20;
  - write a number on the board and ask the learners to write down the following two numbers as well as the previous two numbers, e.g. the 2 numbers before 21, the 2 numbers after 29.
  - Show learners a number-line like the following:

    1____2____3____•____•____•____•____8____•____10____•____→

    Ask questions like the following:
    Where will you put 6, 11, etc.

  - Let the learners stand in a row. The teacher says: "Cindy is number 4. Who is number 9?" or "Zanele is number 12. Who is number 7?"
  - Count back from 18, 24, 37, etc.
  - Count on from 12, 21, 17, etc.
  - Count on from 4 to 13, how many did you count on;
  - Count back from 11 to 5, how many did you count back?

- In tens from any multiple of 10 between 0 and 40:
  - use the counting frame and count the beads in tens;
  - let the learners count out heaps with ten counters each and then count the total in tens to get to the total, e.g. 4 heaps of 10 counters.
  - count 3 ten back from 40;
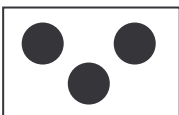
TEACHING AND LEARNING ACTIVITES

LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

- count 2 tens on from 20;
- let the learners sit in a row. Let the learners count the first ten learners. The teacher says: "Ntando is number 10. Who will be number 30?"
- ask the learners to describe and complete the counting pattern: 40, 30, 20, ...

AS 3: Knows and reads number symbols from 1 to at least 100 and writes number names from 1 to at least 34.

- Give the learners 10 objects to count. Rearrange the objects and ask the learners to count them again. The learners must understand that the number of objects in a group does not change when the objects are re-arranged.
- Count out numbers bigger than 10 and let the learners write the number symbols for it.
- The learners recognize familiar numbers like their own age and the age of their siblings and parents.
- Recognise numbers in number games like snakes and ladders.
- The teacher says the number names and the learners show the card with the number symbol. At a later stage they write the number symbol.
- Pack number cards out and ask the learners to pick up 18, 25, etc.
- Ask the learners to point to e.g. 19, 29, 39, etc on their own individual number blocks.
- Give the learners cards with number names on it and and ask them to add 4, 6, etc to it.
- Ask the learners to find page 27, 35, etc in their readers.
- Show the learners cards with dots on it and ask them to write the number name.

  e.g.

- Show the learners cards with number names on it and ask them to copy the number name in their books, to draw the equivalent number of circles and to write the number symbol next to the circles.

  e.g.

TEACHING AND LEARNING ACTIVITES

LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

AS 4: Orders, describes and compares whole numbers to at least 2-digit numbers.

Order numbers:

- Understand that ordinal numbers refer to the place of a number in a certain range;
- Pack out a collection of number cards and describe the place of the numbers in a range from example 1 to 10. e.g. 1 is first, 2 is second, etc.
- Ask questions like
    - which number is 1 more than17, which number is 2 less than 18, etc.
    - which number comes after 12, before 20;
    - which number is between 18 and 20;
    - give each learner five number cards and ask them to arrange the cards in descending and then in ascending order;
    - ask learners which number is fifth in the first row of the number block, seventh in the second row of the number block;
    - which numbers are missing: 25, 20, ..., ..., 5
    - write the numbers between 11 and 20 on the number-line;
    - the time is between 2 o' clock and 4 o' clock, what is the time;
    - the teacher writes the following numbers on the blackboard: 3, 4, 8, 6, 7, 5. Ask the learners which numbers are not in the correct order. The learners write the numbers in the correct order in their workbooks;

Describe numbers:

- describe the numbers that come just after 6 and 16;
- which number am I: I am after 14, but before 16;
- name 4 numbers after 9;
- Describe the number 14: Start saying: It is 1 more than ....., 1 less than ....., it is double ......,   it is 4 more than .....

Compare whole numbers:

- compare two collections of objects by using 1 – 1 correspondence, e.g. give the learners a collection of scissors and pencils and ask them to pack it out in two rows:

    e.g.

    ✂ ✂ ✂ ✂ ✂ ✂ ✂

    ✏ ✏ ✏ ✏ ✏

    The learners describe their findings using the correct vocabulary: there are 2 more scissors, 2 less pencils, the scissors are the most, I have the same

TEACHING AND LEARNING ACTIVITES

LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

number of scissors as Jane, Jack has the least pencils, etc.
- compare numbers by using subtraction, e.g. 9 and 12: 12 – 9 = 3 therefore 12 is 3 more than 9, 9 is 3 less than 12;
- compare numbers on the number line in the same way;
- compare numbers according to how many more or less they are than 5, e.g. 9 is ...... more than 5, 12 is ..... more than 5,   2 is .... less than 5;

*AS 5: Solves money problems involving totals and change in rands and cents.***(Use real or play money)**

- Recognise the coins and their value;
- Calculate totals and change up to 20c;
- Ask learners to pack out 15c and 20c 2 coins and then using 3 coins;
- The teacher says:" I owe you 15c, but I only have a 20c coin. How much change must you give me?" The learners show how much change they will give the teacher.
- the teacher packs out 2 coins and the learners say how much money it is;
- The teacher packs out 4 coins and the learners say how much money it is.

AS 6: Solves and explains solutions to practical problems that involve equal sharing and grouping with whole numbers to at least 34 and with solutions that include remainders.

Use even numbers and allow learners to work with counters or to make drawings. Give them problems like the following to solve:

- 2 children share 6 sandwiches equally. How much does each child get?
- Peter and Mali want to take the same number of books home to read. There are 8 books. How many books will each child take home?

Do the following with larger numbers:

- Give each learner 2 boxes: Let them count out 10 counters and divide it equally by packing the same number of counters in each of the two boxes.
- Let the learners count out , e.g. 8 counters and divide it into 2 equal groups by putting a ruler through the middle of the group of counters.
- Use odd numbers and divide it equally between 2, 3 and 4 children to get a remainder, e.g.:
    - 7 sweets between 2 children, 7 sweets amongst 3 children, 9 sweets amongst 4 children. Let the learners use concrete objects.
- Use even numbers divided by an odd number of children to get a remainder, e.g.:
    - 6 marbles divided amongst 5 children, 8 marbles divided amongst 3 children, 10 marbles divided amongst 3 children.

AS 7: Can perform calculations, using appropriate symbols, to solve problems involving:

7.1 addition and subtraction with whole numbers and solutions to at least 34;

7.2 repeated addition with whole numbers and with solutions to at least 34

TEACHING AND LEARNING ACTIVITES
LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

7.3 estimation

Addition with whole numbers and solutions to at least 34:

- Understand and use in practical contexts (apples, dolls, toy cars, etc.)
- Use the vocabulary: more, add to, the sum of, the total, altogether, is equal to.
- Understand addition as:
  - the combination of two sets to make a total;
  - to add everything together;
  - to count on.
- Understand that adding 0 does not change the number.
- Use mental arithmetic to solve simple problems, e.g.:
  - two plus 1;
  - add 2 to 5;
  - 6 plus 3;
  - what is the sum of 4 and 3;
  - how much is 2 and 5 together;
  - which 2 numbers together make 8;
  - which 3 numbers together make 8;
  - how much must I add to 5 to make 9;
  - I think of a number. If I add 3 to it I get 7. What is the number;
  - write down any number sentence in which the plus sign and is equal sign (=) is used, e.g. $5 + 4 = 9$;
  - recognize the use of signs and complete the following:
    $4 + \square = 6$; $\square + 2 = 6$; $\square + \triangle = 6$;
  - know small addends, e.g.
    $4 + 1$; $4 + 2$; $4 + 3$; $4 + 4$; $4 + 5$
  - understand the following: $5 + 2 = 2 + 5$; $7 + 3 = 3 + 7$
  - add up any three numbers, e.g. $2 + 3 + 5$; $4 + 5 + 1$
  - solve simple word problems: I have 5 marbles and Anele gives me 4 more. How many marbles do I have now?
  - Complete open number sentences, e.g.:
    $4 + 3 + 2 = \square$
    $4 + 3 + \square = 9$

TEACHING AND LEARNING ACTIVITES

LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

$4 + \square + 2 = 9$
$\square + 3 + 2 = 9$
- if the number that has to be added is a big number, break it up, e.g.:
$6 + 9 = 6 + (4 + 5)$ or $6 + 3 + 3 + 3$
Use concrete counters to explain this concept.
- understand that:
$5 + 1 + 3 = (5 + 1) + 3$ or $5 + (1 + 3)$
Use concrete counters to explain this concept.
- know number combinations very well, e.g.:
$5 + 1 = 6$ $1 + 5 = 6$
$4 + 2 = 6$ $2 + 4 = 6$
$3 + 3 = 6$
- know number patterns, e.g. $7 + 0 = 7$; $6 + 1 = 7$; $5 + 2 = 7$, therefore I have to add 3 to 4 to make 7;
- use known number facts to work within larger number ranges, e.g.
$7 + 2 = 9$ therefore $17 + 2 = 19$
$3 + 4 = 7$ therefore $13 v+ 4 = 17$

Subtraction with whole numbers and solutions to at least 34:
- Use the vocabulary e.g.:
Take away,
subtract,
how many left,
how many less is 5 than 9,
what is the difference,
how many more is 9 than 5,
I have 3. How many more do I need to make 9.
- Understand that a number does not change when 0 is taken away from it;
- Use mental arithmetic to solve simple problems, e.g.:
  - 7 take away 1;
  - take 3 away from 9;

TEACHING AND LEARNING ACTIVITES

LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

- what is the difference between 4 and 7;
- how many must I take away from 8 to have 5;
- I think of a number from which I take away 2 and have 2 over - what is the number;
- write down a number sentence in which the minus and = signs are used, e.g. $9 - 4 = 5$;
- recognize the use of $\square$ and $\triangle$ that present unknown numbers, e.g.:
  $\square - \triangle = 4$
- use small minuends, e.g.
  $7 - 1$; $7 - 2$; $7 - 3$; $7 - 4$; $7 - 5$
- know number combinations, e.g.:
  $5 + 2 = 7$ $7 - 2 = 5$
  $4 + 3 = 7$ $7 - 3 = 4$
- use patterns, e.g.:
  $7 - 1 = 6$ $7 - 2 = 5$ $7 - 3 = 4$, therefore $7 - 4 = 3$
- use known subtraction facts to do subtraction in higher number ranges, e.g.:
  $7 - 1 = 6$ $17 - 1 = 16$ $27 - 1 = 26$
- break down the number that must be taken away if it is too big a number to work with, e.g.:
  $11 - 9 = (11 - 5) - 4$; $14 - 7 = (14 - 4) - 3$

Repeated addition with whole numbers and with solutions to at least 34:
- Solve word problems, e.g.
  - I have 2 pictures and get 2 from Susan and 2 from Ann. How many pictures do I have now?
  - Mary is stringing beads. She takes 4 red ones, then 5 blue ones and then 2 green ones. How many beads does she use?
- Complete the following number sentences:
  $10 + 10 = 10 = \square$
  $20 + 10 + \square = 30$
  $\square + 1 + 5 = 7$

Estimation:
Let the learners estimate the answers before they start calculating and solving problems. They write down the estimated number and compare it later with the real number.

TEACHING AND LEARNING ACTIVITES

LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

AS 8: Performs mental calculations involving addition and subtraction for numbers to at least 10.

- Know addition and subtraction number combinations very well.

- Fill in the missing numbers and complete the combinations (bonds) of 9:

9	8		5	7			2		
	1	3			0	4		8	6

- Write down the answer:
  The teacher asks addition and subtraction combinations orally or uses flash cards:
  4 + 3;   6 + 3;   8 – 5;   7 – 2
  how much must I add to 4 to have 7;
  how much must I take away from 8 to have 3, etc.

- Complete the number sentences:
  4 + 3 =☐
  8 – 3 = ☐
  3 + ☐ = 6
  7 – ☐ = 2
  ☐ + 5 = 9
  ☐ - 4 = 4

AS 9: Uses the following techniques:
9.1 building up and breaking down numbers;
9.2 doubling and halving;
9.3 concrete apparatus (e.g. counters);
9.3 number lines.

- Building up and breaking down numbers:
  - start doing it with counters, e.g. pack out 4 counters, change it to 7 (adding on), what did you do, write it to show what you have done;

TEACHING AND LEARNING ACTIVITES

LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS

- count out 7 counters, pick it up in 2 hands and say, e.g. 5 + 2 = 7, pick up the counters in a different way using 2 hands;
- count out 9 counters and take 3 away, say how many are left over – write the matching number sentence, e.g. 9 – 3 = 6; do the same with all the number pairs of 9.

- Doubling and halving:
  - pack out a number of counters, e.g. 4 counters – put a pencil on the right side of the counters and double the number by packing counters on the other side of the pencil – say: 4 plus 4 is equal to 8 - write the number sentence;
  - addition of doubles, e.g.

    1 + 1; 2 + 2; 3 + 3; 4 + 4; 5 + 5
  - identify near doubles, e.g.:

    5 + 6 = 5 + 5 + 1

    4 + 5 = 4 + 4 + 1
  - pack out 6 counters and divide it into 2 equal groups (use the pencil again) and say half of 6 is equal to 3
  - know 'subtracting half of a number', e.g.:

    4 + 4 = 8   8 – 4 = 4

    3 + 3 = 6   6 – 3 = 3

    2 + 2 = 4   4 – 2 = 2
  - identify near halves, e.g.

    8 – 6 = (8 – 4) – 2

    10 – 7 = (10 – 5) – 2

- Concrete apparatus and number-lines

  Use with all number work.

AS 10: Explains own solutions to problems.

See that there are counters, paper, pencils, crayons and number blocks available for the learners who want to use it. Work with a small group of learners.
- Pose the problem.
- The learners start working – trying to get a solution. They use counters, paper and pencils and try to solve the problem by using their own methods and strategies.
- As soon as they have finished, they start reporting back to the group and explain how they solved the problem.

TEACHING AND LEARNING ACTIVITES
LO 1: NUMBERS, OPERATIONS AND RELATIONSHIPS
- The teacher records the learners' methods on the board. - The answers, methods and strategies are compared and evaluated. ***AS 11: Checks the solution given to problems by peers***. See AS 10.   **FORMAL ASSESSMENT TASKS** **Refer to Section 3 of the GR 1 Numeracy Learner Attainment document**

TEACHING AND LEARNING ACTIVITES

LO 2: PATTERNS, FUNCTIONS AND ALGEBRA

AS 1: Copies and extends simple patterns using physical objects and drawings (e.g. using colours and shapes).

- the teacher uses physical objects and pack out a pattern – the learners follow him/her, e.g. a crayon, a rubber, a pair of scissors, a bead;
- pack a more complicated pattern with the same objects, e.g. 2 crayons, 2 rubbers, 2 pairs of scissors and 2 beads;
- replace the counters in due course with pictures and shapes;
- give the learners the opportunity to pack out their own patterns with any objects or pictures and let them compare their patterns with those of their classmates.

AS 2: Copies and extends simple number sequences to at least 100.

- Develop and recognize number patterns.
- The teacher should always write number sequences in a 'pattern form' to create an opportunity for the learners to use their number knowledge to recognize the patterns.
- Start with a pattern and let the learners extend it as far as they can, e.g.
  Counting numbers (counting in ones):

  ```
   1   2   3   4   5   6   7   8   9   10
  11  12  13  14  15  16  17  18  19  20
  21  22  ...  ...  25  ...  ...  ....  ...  30
  ```
  etc.

  Counting in 2s:
  ```
   2   4   6   ...      10
  12  14  ...  18      ...
  ```

  Counting in 10s and how it is related to counting in ones:
  ```
  1   2   3   4   5   6   7   8   9
  10  20  ....  40  50  ....  70  80  ....
  ```

TEACHING AND LEARNING ACTIVITES
LO 2: PATTERNS, FUNCTIONS AND ALGEBRA

Addition combinations and the extension thereof, e.g.:

10 + 1 = 11	20 + 1 = 21
10 + 2 = 12	20 + 2 = 22
10 + 3 = 13	20 + 3 = 23 etc.

7 + 0 = 7	17 + 0 = 17
6 + 1 = 7	16 + 1 = 17
5 + 2 = 7	15 + 2 = 17
4 + 3 = 7	14 + 3 = 17

10 − 0 = 10	20 − 0 = 20
10 − 1 = 9	20 − 1 = 19
10 − 2 = 8	20 − 2 = 18
10 − 3 = 7	20 − 3 = 17
10 − 4 = 6	20 − 4 = 16 etc.

AS 3: Creates own patterns.

- Use one or more shapes to make patterns with.
- Describe and complete patterns.
- Give a drawn pattern to the learners and ask them to pack it with objects and/or pictures of their choice.
- Let the learners develop in due course their own number patterns.

AS 4: Describes observed patterns.

- Recognise patterns on materials, gift-wrapping paper, etc.
- Recognise patterns in nature, e.g. days, months, day and night, seasons, etc.
- Pack out patterns with objects, pictures and shapes (cut out shapes) and describe the pattern.
- Do the same with number patterns.

TEACHING AND LEARNING ACTIVITES
LO 2: PATTERNS, FUNCTIONS AND ALGEBRA
AS 5: Identifies, describes and copies geometric patterns in natural and cultural artifacts of different cultures and times. • Use, e.g. the patterns on the following objects, materials and artefacts: dress-fabrics, gift-wrappings, patterns on carpets, patterns on table mats, paintings on huts, painted clay pots, etc. **FORMAL ASSESSMENT TASKS** **Refer to Section 3 of the GR 1 Numeracy Learner Attainment document**

TEACHING AND LEARNING ACTIVITES
LO 3: SPACE AND SHAPE

AS 1: Recognizes, identifies and names two-dimensional shapes and three-dimensional objects in the classroom and in pictures including:
* *Boxes (prisms) and balls (spheres)*
* *Triangles and rectangles*
* *Circles*

* Conduct a survey:
  Divide the class in small groups and let them find out and record how many boxes, balls, triangles, rectangles and circles they can identify in the classroom – they draw pictures of the objects and shapes and make ticks under it when they find something.
  They report back about their finding,
  The result of the different groups are compared to find the winning group.

AS 2: Describes, sorts and compares physical two-dimensional shapes and three-dimensional objects according to:
* *size;*
* *objects that roll or slide;*
* *shapes that have straight or round edges.*

* Let the learners work in small groups. Put examples of 3-D objects which can roll and can slide and shapes that have straight and round edges on the floor:
  - give each of the learners an opportunity to describe 3 of the objects according to their size and whether they can roll or slide.
  - do the same with 2-D plastic or paper shapes asking whether they have straight or round edges.
* Put a variety of 3-D objects that can roll, slide and with different shapes in a big box or in different boxes. Ask the learners to sort out the objects in groups that can roll, that can slide and in different sizes.
* Let the learners look at objects in picture books and say whether they can roll or slide, compare their sizes and say whether they have straight or round edges.
* Make up riddles like:
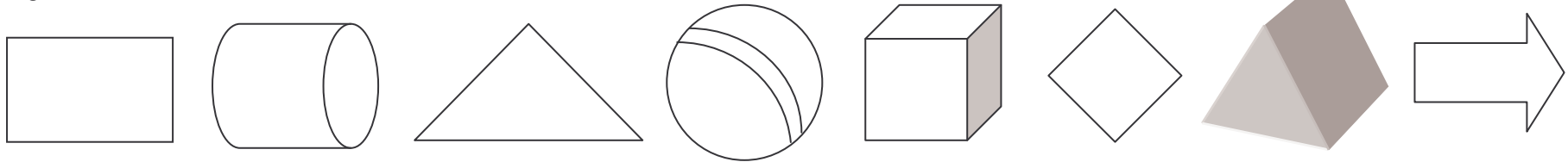 I am made out of soft metal,
  I have a lid that can roll, and
  People put different kinds of things in me.

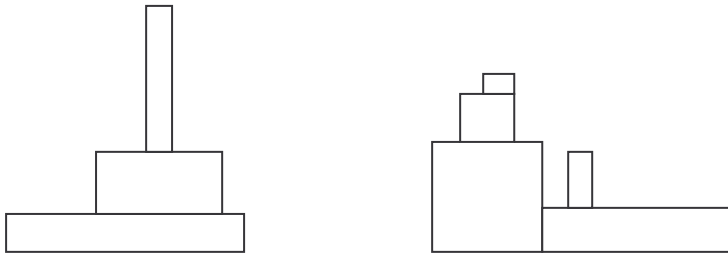| TEACHING AND LEARNING ACTIVITES |
|---|
| **LO 3: SPACE AND SHAPE** |

(Answer: a cake tin)

- Draw simple objects on the board and let the learners say whether it can roll/can slide/has straight edges/has round edges.
  e.g.

AS 3: Observes and builds given three-dimensional objects using concrete materials (e.g. building blocks and construction sets).

- Use empty boxes of different sizes if building blocks and/or construction sets are not available:
  - let the learners build any construction;
  - make a sketch on the board and let them build according to it, e.g.

  - let the learners try to draw a sketch of their own constructions.

TEACHING AND LEARNING ACTIVITES
LO 3: SPACE AND SHAPE

AS 4: Recognizes symmetry in self and own environment (with focus on 'left', 'right', 'front' and 'back').

- Let the learners point to the left side and the right side of their own bodies and to their left and right hand, foot, leg, arm, ear and eye while they say, e.g. "This is my left hand", etc.

- Do the same with "The back and front of my body."

- Play games like:
  Put your hands at the back of your head/at the front of your head;
  Hold up your right/left hand;
  Stand on your right/left leg, etc.

AS 5: Describes one three-dimensional object in relation to another (e.g. 'in front of ' or 'behind').

Give instructions like the following to the learners:
  - stand in front of/behind your chair;
  - Peter go and stand behind the door;
  - put your pencil in the front/at the back of your book;
  - look at pictures and ask questions like: "Where does the girl stand, where does the tree grow?"
  - give exercises to learners in which direction plays a role and ask them to encircle/to draw a circle around the first and the last picture in each row, e.g.

TEACHING AND LEARNING ACTIVITES
LO 3: SPACE AND SHAPE
AS 6: Follows directions (alone and/or as a member of a group or team) to move or place self within the classroom or three-dimensional objects in relation to each other. Give the following instructions to the learners: • sit on your chair/under your chair; • sit next to, in front of, behind, on, under your table/desk; • take your reader and put it on, under, in front of, behind, on the left-hand side, on the right-hand side of your desk/table; • get a partner and decide who will follow the instructions first and start, e.g.   stand behind, in front of, on the left-hand side, on the right-hand side of your partner.   **FORMAL ASSESSMENT TASKS**   **Refer to Section 3 of the GR 1 Numeracy Learner Attainment document**

TEACHING AND LEARNING ACTIVITES

LO 4: MEASUREMENT

AS1: Describes the time of day using vocabulary such as 'early', 'late morning', 'afternoon' and 'night'.

Refer to situations in the learners' everyday lives, e.g.
- We get up early in the morning because school starts early. The sun rises early in the morning.
- Late morning we have a nice long break at school.
- I take part in sport in the afternoon.
- I go to bed in the evening.
- The dogs bark at night when we want to sleep.
- The moon shines at night.

AS2: Compares events in terms of the length of time they take (longer, shorter, faster, slower).

- Use the vocabulary informally when the school activities are compared with activities that are done at home, according to the time it takes.
- At a later stage questions like what will take longer washing a car or brushing your teeth, what moves faster – a dog that is running or a person that is running, etc. can be asked.

AS3: Sequences events using language such as 'yesterday', 'today' and 'tomorrow'.
Use the learners' daily lives at school and at home as context.

AS 5: Estimates, measures, compares and orders three-dimensional objects using non-standard measures:
• mass (e.g. bricks, sand bags);
• capacity (e.g. spoons, cups);
• length (e.g. hand spans, footsteps).

- Knows the vocabulary: mass: measure mass, weigh, heavy/light, balance.
- Estimate, measure and compares two masses by direct comparison – extend to more than two. e.g. books, bottles, suitcases, etc.
- Use non-standard measures, e.g. mass: bricks, sand bags, plastic weights, wooden blocks.
-
*Note: In the Grade 2 Numeracy Learner Attainment document, **Mass** is addressed in the second term.*

TEACHING AND LEARNING ACTIVITES
LO 5: DATA HANDLING
AS 1: Collects everyday objects (alone and/or as a member of a group or team) in the classroom and school environment according to given criteria or categories. *AS 2: Sorts physical objects according to one attribute chosen for a reason (e.g. 'Sort crayons into colours.').* *AS 3: Gives reasons for collections being grouped in particular ways.* *AS 4: Draws a picture as a record of collected objects.* *AS 5: Constructs pictographs where stickers or stamps represent individual elements in a collection of objects.* *AS 6: Describes own collection of objects, explains how it was sorted, and answers questions about it.* *Note AS 1 – 5 should be taught as an integrated process.* • Ask learners to collect specified objects in the classroom and school environment, e.g. boxes, crayons, etc. • Ask learners to sort and classify the objects according to e.g. size, shape, length, etc. • Put a few boxes on the floor with collections of e.g. shapes, buttons, beads, cards, dominoes, etc. Ask learners why the objects are grouped together. For example: They are grouped together because - they are all of the same kind, e.g. buttons, blocks, beads, cards, etc. - they have the same colour; - they have the same size; - they have the same length; - they are all counting numbers between 14 and 20; - they are all days of the week. • Divide learners into small groups. Ask questions like: Which fruit do the learners in your group like the most?

TEACHING AND LEARNING ACTIVITES
LO 5: DATA HANDLING

- Ask learners to construct a pictograph:

●			
●	●		
●	●	●	
●	●	●	
●	●	●	●
bananas	apples	oranges	grapes

- Questions:

  How many learners did you ask?

  What fruit do they like the most?

  Which fruit do they like the least?

  How do you know?

FORMAL ASSESSMENT TASKS

Refer to Section 3 of the GR 1 Numeracy Learner Attainment document

REFERENCES

- The Numeracy Learner Attainment Targets - Grade 1
- Government Gazette 30880 of 14 March 2008, which outlines the Foundations for Learning Campaign
- Foundations for Learning: Foundation Phase Numeracy Lesson Plans Grade 1
- Examples of activities and notes for Assessment Standards of the Western Cape Education Department