

Grade 2 Mathematics Term 1 Lesson 3

Teachers

We trust that you have studied the error analysis, recorded it, located the skills and knowledge gaps in the CAPS document and are reteaching and remediating where needed. We cannot emphasise enough that you have to be alert stay positive and focus on core teaching. Allow for good practise activities to work at these learning deficits. Provide the concrete/ physical apparatus and give the learners the time to talk about what they have learnt. In this way you can check if the learners understand and can demonstrate the skills learnt. Practice is key. Acknowledge all efforts big or small. Keep encouraging learners to do their best. Be mindful that you are responsible to teach so that the learners can demonstrate by doing, talking, and recording their understanding. Only this can influence their progress. Make Maths fun, foster positive mindsets as this build confidence which is necessary for the learner to develop a love for Maths.

Whole Class Activity: Counting integrated with Mental Maths (5min + 10 min) and consolidation of concepts taught (20 min).

MENTAL CALCULATIONS: Remediate where applicable the baseline assessment knowledge and skill gaps before Grade 2 work is taught. Also concentrate on the errors noted when marking learner books. Be sure to cultivate the practice of doing corrections. Ask at least 10 short mental questions every day to assess the child's mental skills. Increase the questions by changing the numbers. Study and plan well. Notice how this Mental exercise mostly builds on the numerosity of 10. You are challenged to do the same with the numbers 10 to 15 and consolidate this well. This is also a good opportunity to remediate the gaps as noted in the Baseline Assessment. Be vigilant, do the informal assessment as it will inform on how to plan and teach effectively.

Design more questions to allow learners to explore the numerosity of numbers. Simply change the numbers only.

- | | |
|--|--|
| <ul style="list-style-type: none"> Yesterday was...; today is...; tomorrow will be ... How many school days are there in 4 school weeks? How many days are there in 3 weeks? Ian has 10 masks. He gave half away. How many are left? $8+3+3 =$; $8+2+4 =$ 3 less than; 5 less than 12 is / $12-3$; Double 2; 4; 6; 10, etc. How many 50c pieces can I get for my R10 / R20? Half of 8 and 4 more is? Count in 10s: 40, __, __, __, __, __, 100 Today is Saturday, in 4 days' time it will be? What am I? I have 4 straight sides, 2 sides are long and 2 sides are short. What month comes after February? What month comes before May? The 10th month of the year is _____. $10-4 =$; $20-4 =$; $30-4 =$; $5+5+5 =$; $10+5 =$; $11+5 =$; Share 6 oranges amongst 4 girls, each will get? Share 8 oranges amongst 6 boys, each will get? One apple cost R7. How much will 2 cost? Continue the pattern 24, 26, __, __, __ What is the rule? 10-9, 11-9 ; 20-9 ; 21-9, 30-9 | <ul style="list-style-type: none"> How many groups of 2 are there in 10; 16; 20, 22? If 10 mangoes fill one box: How many boxes will 50 mangoes fill? How many mangoes in 3 boxes? Half of 10 is_. Half of 13 is_ .. Continue the pattern 30, 35, 40 ____, ____. Seven children have ____ toes. How many R10 notes can I get for my R80, R100; R50? Which number is bigger 12 or 21? Twelve is how many more than 8? Ten balloons, 4 pop. How many are left? What is the sum of 4 and 6? $10-4 =$; $11-4 =$; $12-4 =$; The eighth month of the year is... The last month of the year is... How many months there in one year/two years? How many buns are there in 1½; 1; 2 dozen? Seven of the 11 books are fiction, how many are non-fiction. Twelve pies are shared amongst 3 boys. Each receives_? I share 13 chocolates between 2 boys., each will get... and if I share the 12 amongst 4 boys, each will get? The difference between 10 and 4? Which number is bigger 10 or 20? |
|--|--|



Counting patterns.

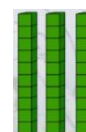
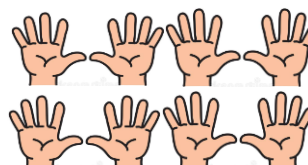
5s

45	50	55	60
65	70	75	80

4s

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

10s



Resources: Classwork book, Maths Rainbow Workbook, counters (buttons, bottle tops,) abacus, number chart, number line.

Revision: Skills and Knowledge

Numbers 1 to 15

- Count forwards in 10s, 5s, 2s, 3s to 50 and backwards in 10s, 5s, 2s, 3s from 50
- Allow learners to use counters, sticks, bottle tops, etc.
- Position of numbers (ordinal numbers): first, second, third, fourth, fifth, to fifteenth (1st -15th)
- Compare numbers: more, less. 1 more, 2 more; 1 less, 2 less to 20.
- Sequence numbers. Number patterns. Bonds to 10. Compare and order numbers to 10.
- The learner must know 10 well and must master the bonds of 10.
- Doubling and Halving -20 and the integration of this concept with Space and Shape
- Problem solving to 10-20.
- Addition (+) and Subtraction (-) to 10 -20 and reverse sums.
- Concentrate on allowing the learner to show +, - on the number line.



DBE Workbook



Day 1

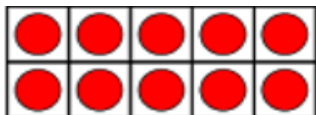
Numbers, Operations and Relationships: Developing Number Sense

Counting: Count forwards in 10s, 5s, 2s, 3s to 80; Count backwards in 1s, 10s, 5s, 2s from 80.**Mental Calculations:** Do at least ten similar questions as on page 1.**Problem Solving in context. Complete** at least 2-3 every day. Learners can do these in their class work books.**Measurement: Time:** Days of the week, months of the year, birthdays on calendar, weather chart.**Vocabulary:** (today is..., tomorrow will be..., yesterday was...)

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60

Problem Solving (in class workbooks.)

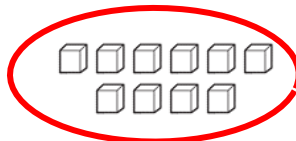
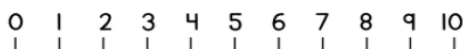
- Cathy has 10 T-shirts. Six are red. 2 are blue. The rest are green. 1 green one is torn. How many green T-shirts are left?
- Luvo planted 3 rows of carrots. He planted 3 carrots in each row. Snails ate 4 carrots. How many were left?
- There are 8 apples left in the box. Two were eaten. How many apples were there in the box from the start?

What makes 10? Ten comes after which number. One more than 9 is . 1 less than 11 is .

top row



bottom row



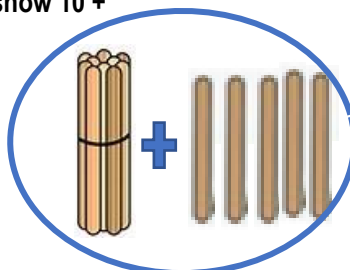
Pack out 2 colours of counters/ bottle tops/ unifix cubes to show 10 +



$$10 + 5 = 15$$



$$10 + 8 = 18$$



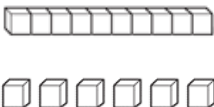
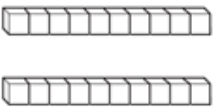
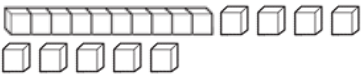
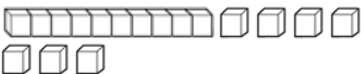
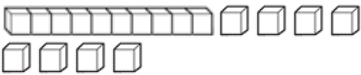
Be sure to have progressed to the, 'count on' method.



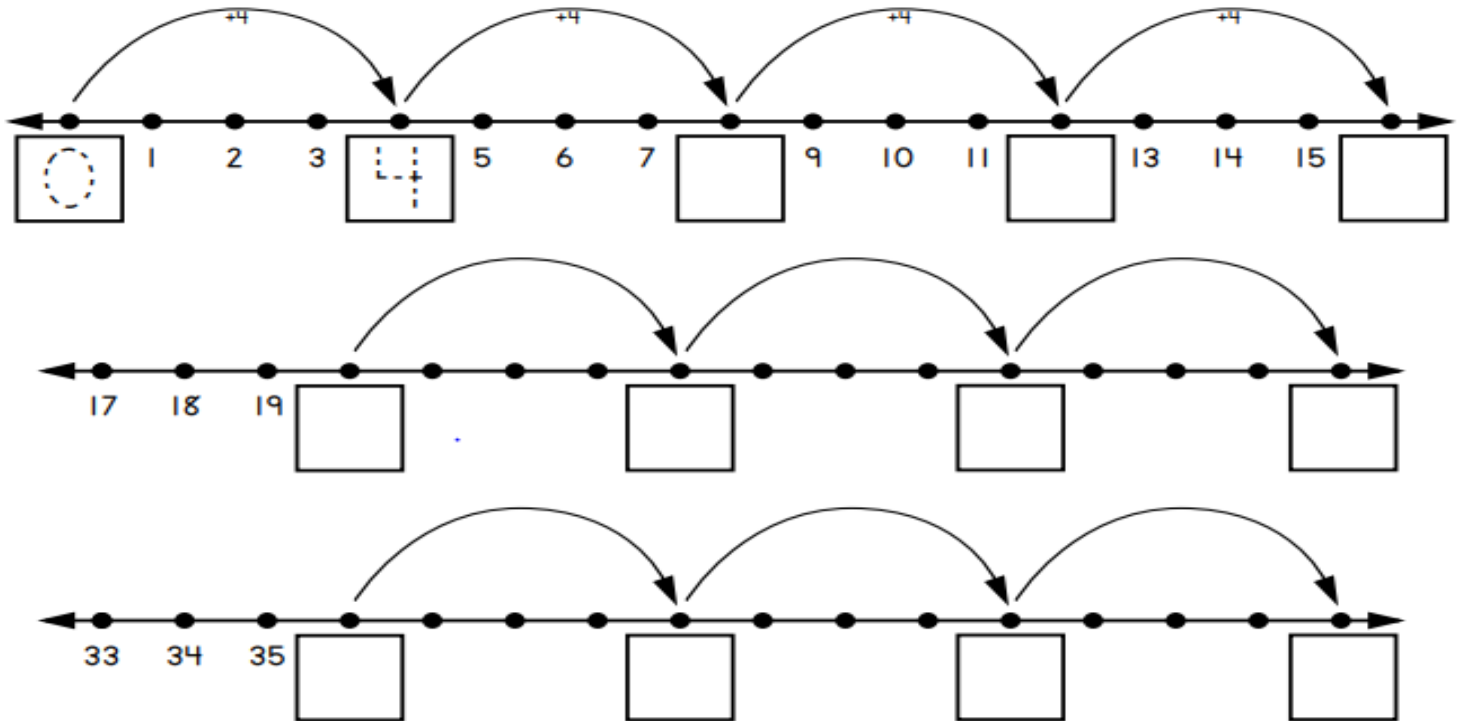
15

At this stage the Gr2 learner must also be able know 10 and to 'count on'.

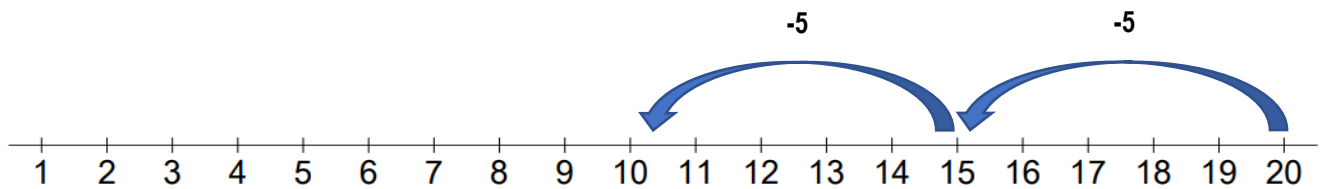
Make sure that the learner understands the quantity of 10 and knows the numerosity of 10 as well as 10's relevance throughout.

1. How many?	Place Value (T and O)		Write the number name.	Addition and subtraction sentence.
	Ten	Ones		
	1	3	thirteen	$10 + 3 = 13$ $13 - 3 = 10$
				
				
				
				
				
				

2. Count in 4s. Fill in the missing numbers.



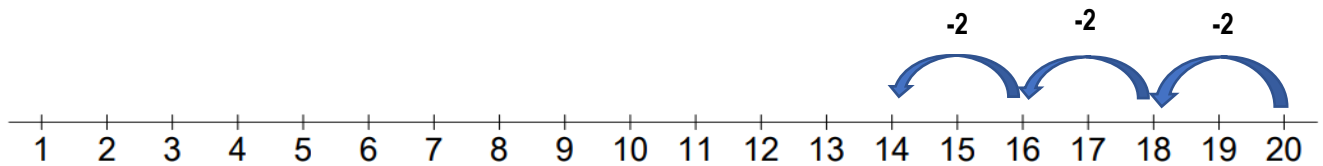
a) Show 5 less than on the number line. Count backwards from 20 to 0. Continue the number pattern below.



Write the subtraction sentence to show that you understand what is shown on the number line.

$$20 - 5 - 5$$

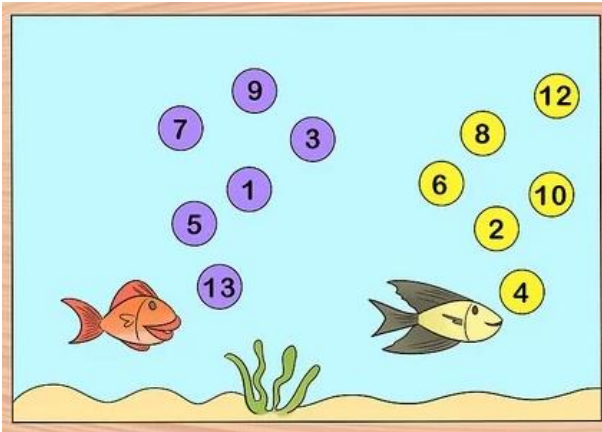
b) Show 2 less than on the number line. Count backwards from 20 to 0. Continue the number pattern below.



Write the subtraction sentence to show that you understand what is shown on the number line.

$$20 - 2 - 2 - 2$$

3. Comparing Numbers.



List all the even numbers in the correct order.

List all the odd/ uneven numbers in the correct order.

- If the pattern continues what will the 8th number in the odd number pattern be? _____
- If the pattern continues what will the 10th number in the even number pattern be? _____
- Write the addition sentence of the 3 biggest **even** numbers. _____
- Write the addition sentence of the 3 biggest **odd /uneven** numbers. _____
- Write the subtraction sentence of the biggest and smallest **even** numbers. _____
- Write the addition number sentence of the 3 biggest **odd/ uneven** numbers. _____
- Write the subtraction sentence of the biggest and smallest **odd/ uneven** numbers. _____
- Add 9 to the smallest even number. Write the addition sentence. _____
- Subtract the biggest odd number from the biggest even number. Write the subtraction sentence. _____

How many?	Add 2 more than.	Write the number name once you added the 2 more .
 _____	_____ + 2 =	
 _____		

Day 2

Numbers, Operations and Relationships: Developing Number Sense.

Counting: Count forwards in 10s, 5s, 2s to 50; Count backwards in 1s, 10s, 5s, 2s from 50.

Mental Calculations: Do at least ten similar questions as on page 1.

Problem Solving in context. At least 2-3 every day can be completed in the learners class work books.

Patterns, Functions and Algebra: Number patterns. (Bonds of 10, 11)

Addition and Subtraction to 20.



Problem Solving (in class workbooks.)

- Of the 18 sweets I ate 4. How many are left?
- Luvo has 4 fish bowls. There are 3 fish in each bowl. How many fish altogether. How much if each fish cost 20c?
- Nosi has 9 oranges and Silo gave her some oranges. Now she has 16 oranges. How many oranges did Silo give her?
- **Pack out your counters, bottle tops, buttons, etc. /demonstrate / show on white board/ chalk board/ sheet of paper.**
- **Study the number patterns well. Notice the relationship between addition and subtraction.**
- ❖ **Remember your bonds of 10... complete this in your class work book.**

$$10 + 0 \quad 10 - 0 =$$

$$9 + 1 \quad 10 - 1 =$$

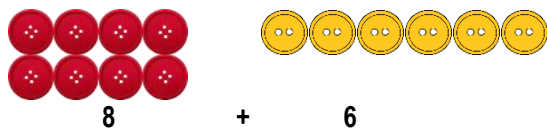
$$8 + 2 \quad 10 - 2 =$$

$$7 + 3 \quad 10 - 3 =$$

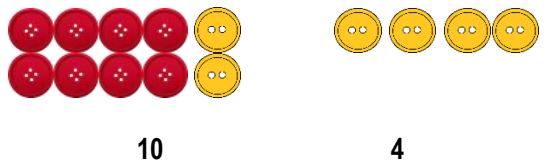
Addition to 20. The learners must be able to:

- Add two 1 digit numbers using the 'make 10 / fill the 10' method.
- Add 1- digit and 2- digit numbers.
- Use the 'count on' method.
- Know the 10 frame.

Add two 1-digit numbers by making 10.



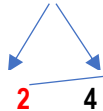
Make a group of 10



8 and 2 make 10

Encourage learners to count on. Remind them that the total number of counters does not remain the same when we move these around.

$$8 + 6 = 14$$



$$8 + 2 = 10$$

$$10 + 4 = 14$$

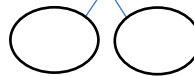
First, add 8 and 2 to make 10. Then, add 4.

$8 + 4$ is the same as $10 + 4$

$$8 + 6 = 14$$

There are 14 buttons altogether.

$$8 + 7 =$$



Looking for 10s $3 + 1 + 7 = 10 + 1 = 11$

$$4 + 6 + 1 = 10 + 0 + 8$$

$$2 + 8 + 3 = 1 + 7 + 9 =$$

$$7 + 3 + 4 = 3 + 6 + 7 =$$

$$9 + 1 + 5 = 1 + 8 + 9 =$$

Do these in your classwork books.

Know the bonds of 10!

1. Fill the 10/ make a ten. If the learner knows 10 well, s/he will break down any number/ some prefer to break down the smallest number in the sentence. Remember your bonds of 10!

a) $8 + 6 =$



$8 + 2 + 4 =$
 $10 + 4 = 14$

b) $8 + 4 =$

c) $6 + 5 =$

d) $6 + 7 =$

e) $9 + 4 =$

f) $9 + 7 =$

g) $5 + 7 =$

h) $3 + 9 =$

i) $2 + 9 =$

j) $8 + 9 =$

b. Complete the addition sentences.

a) $9 + 1 + 6 =$

b) $9 + 5 + 1 =$

c) $8 + 5 + 2 =$

d) $7 + 8 + 3 =$

e) $5 + 6 + 5 =$

f) $6 + 7 + 4 =$

g) $6 + 3 + 4 =$

h) $2 + 6 + 8 =$

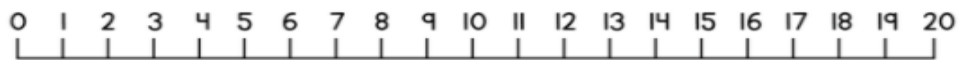
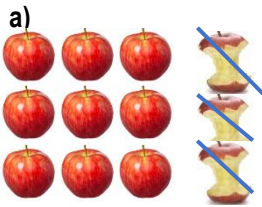
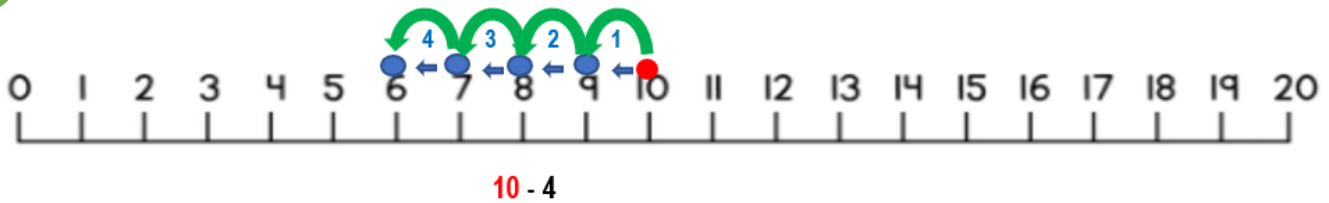
Show (c) and (f) on the number line.



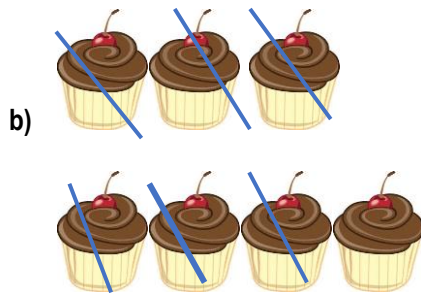
2. Show the subtraction sentence on the number line. Study the example below.



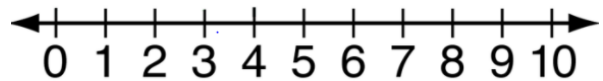
Subtraction – count backwards



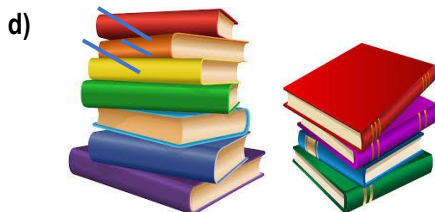
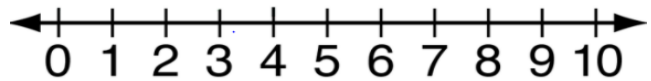
$$12 - 3 =$$



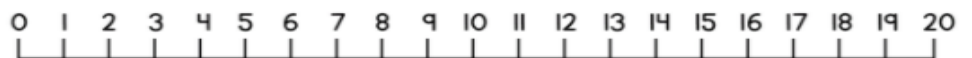
$$7 - 6 =$$



$$8 - 2 =$$



$$11 - 3 =$$



Day 3

Numbers, Operations and Relationships: Developing Number Sense.

Counting: Count forwards in 10s, 5s, 2s to 50; Count backwards in 1s, 10s, 5s, 2s from 50.

Mental Calculations: Do at least ten similar mental questions as on page 1.

Problem Solving in context. At least 2-3 every day can be completed in the learners class work books.

NOR: Halving and Doubling as a strategy for word problems.

Addition and Subtraction to 20.



Problem Solving (Show your method in your class workbook.)

- Of the 18 sweets I ate 4. How many are left?
- Luvo has 4 fish bowls. There are 3 fish in each bowl. How many fish altogether. How much if each fish cost R2?
- Nosi has 9 oranges and Silo gave her some oranges. Now she has 16 oranges. How many oranges did Silo give her?

❖ **Remember the bonds of 10... you must know this so that you can break down/ partition/ compensate for when you do further numberwork.**

$$10 + 0 \quad 10 - 0 =$$

$$9 + 1 \quad 10 - 1 =$$

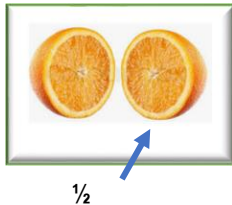
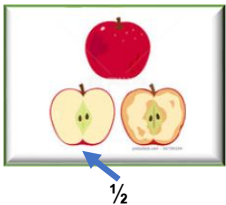
$$8 + 2 \quad 10 - 2 =$$

$$7 + 3 \quad 10 - 3 = \quad \text{(Learner completes work in class work books.)}$$

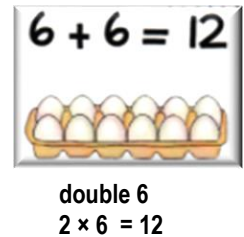
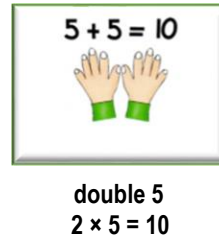
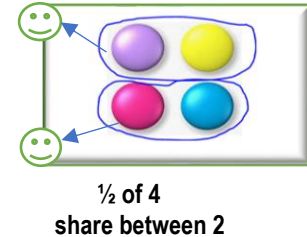
For the teacher. Halving and doubling. Remember equal sharing of the apple, the orange ...

- This is one of the best skills that are learnt, besides learning the bonds and times tables.
- With good understanding doubling and halving are skills that the learner is able to recite with ease from memory.
- If the learner knows what $5 + 5$ is, s/he will find it easier to also work out $5 + 6$ (we call this near doubles- can you see how this can also help with making a ten?)
- Halving is about equal sharing between 2.
- It helps to teach place value - if they know what double 10, 20 is, they will soon be able to double 100, 200 or even bigger.
- Knowing doubles is the same as knowing the 2 times tables!
- Partitioning/ breaking down numbers can help to double more complicated numbers - for example, double 14, we double 10, (20) first, then double 4 (8) and add these together (28).

Remember halving the apple/ the orange.



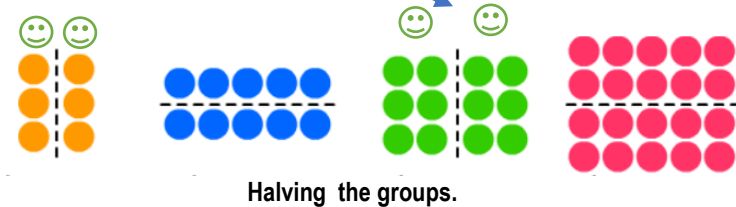
Sharing your smarties / halving.



Recap: Halving and doubling.

Halving

- Sharing between 2.
- Opposite of doubling.
- Subtract the same number.



Doubling

- Adding the same number. $6 + 6 = 12$
- The 2 times table.
- Always ends in even number.

$$\begin{array}{l} 0 + 0 = 0 \\ 1 + 1 = 2 \\ 2 + 2 = 4 \\ 3 + 3 = 6 \\ 4 + 4 = 8 \\ 5 + 5 = 10 \\ 6 + 6 = 12 \\ 7 + 7 = 14 \\ 8 + 8 = 16 \\ 9 + 9 = 18 \\ 10 + 10 = 20 \end{array}$$

$$\begin{array}{l} 1 \times 2 = 2 \\ 2 \times 2 = 4 \\ 3 \times 2 = 6 \\ 4 \times 2 = 8 \\ 5 \times 2 = 10 \\ 6 \times 2 = 12 \\ 7 \times 2 = 14 \\ 8 \times 2 = 16 \\ 9 \times 2 = 18 \\ 10 \times 2 = 20 \end{array}$$

1. Word problems

a. Phumi has 12 ice-creams. Nonko has half that number. How many does Nonko have?



b. Hanlie has 17 sweets. Thenjie has double that number. How many does Thenjie have?



c. Marlene gave half of her pencils to Carmie. Carmie has 6 pencils. How many did Marlene have from the start?

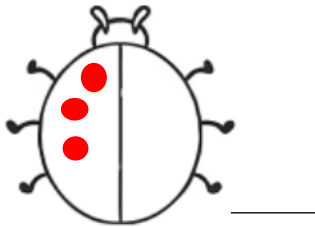


d. Phumi made 10 cupcakes. Thenjie made double that number. How many did Thenjie make.

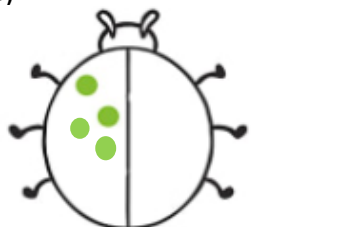


2. Complete the doubles. Write the answers on the lines provided.

a)



b)



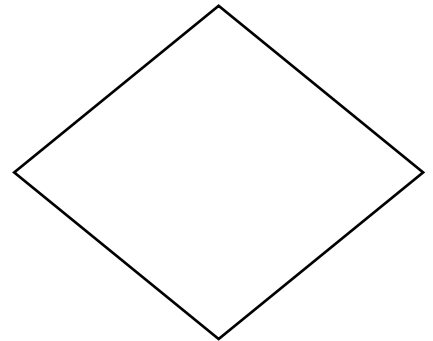
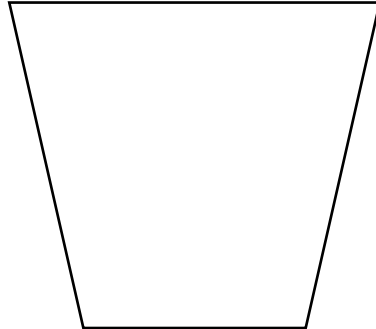
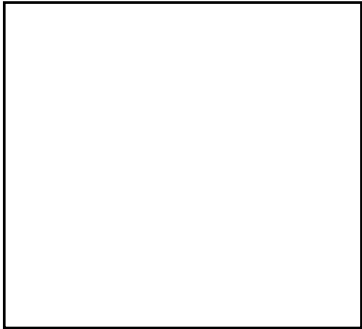
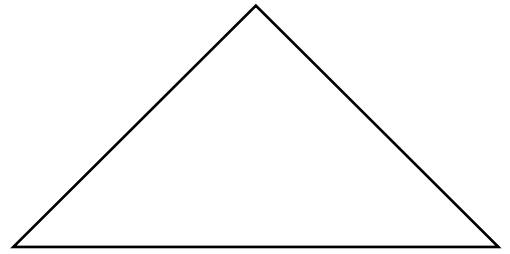
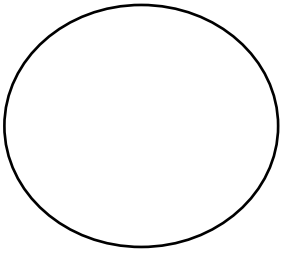
c)



d)

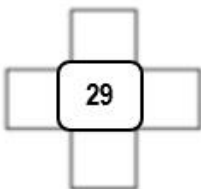
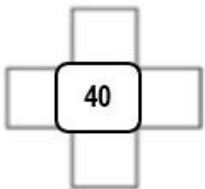
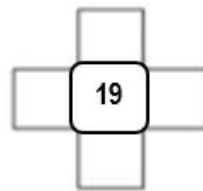
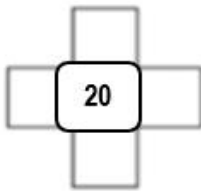
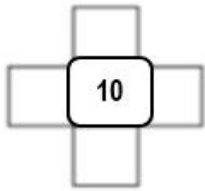
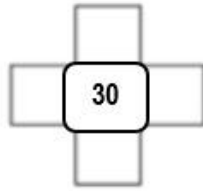


2a. Colour in the half of each shape. (integration of space and shape)



b. Fill in the missing numbers as on the counting chart

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50



c. Complete the missing facts

0 less than 11 is ____

5 less than 11 is ____

6 less than 11 is ____

4 less than 11 is ____

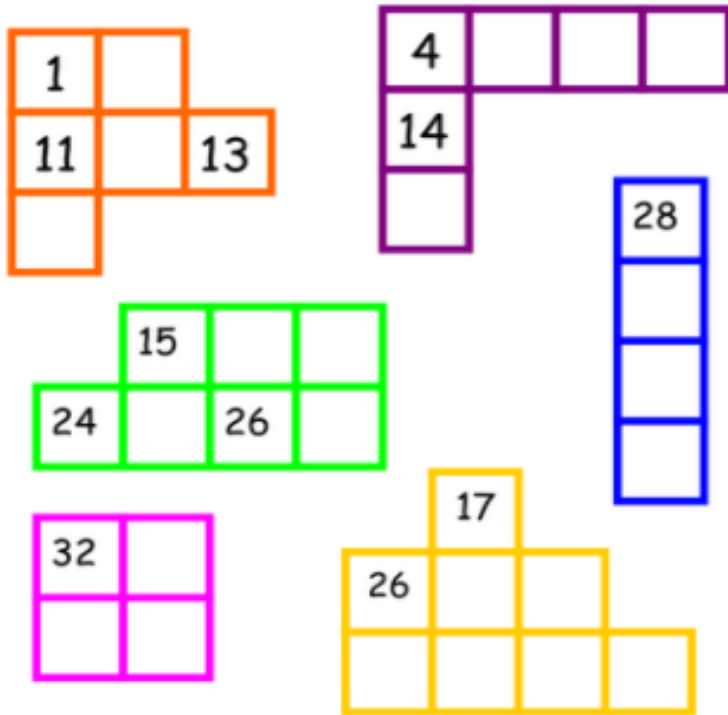
1 less than 11 is ____

8 less than 11 is ____

2 less than 11 is ____

10 less than 11 is ____

3. Number patterns: Use the counting chart to help you find the number patterns.



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100



Groups of bananas equals	Answers
Write the number sentence for 3 groups of 5.	
Write the number sentence for 4 groups of 5.	
What would the total number be if there are 6 bunches of 5 bananas each.	
What is the total number of bananas that you see?	
If I take 2 bunches away. How many bananas are left?	
Subtract 10 from the number of bananas that you see. Write the subtraction sentence.	
What number comes after the total of bananas that you see?	

Day 4

Numbers, Operations and Relationships: Developing Number Sense.

Counting: Count forwards in 10s, 5s, 2s to 50; Count backwards in 1s, 10s, 5s, 2s from 80.

Mental calculations: do at least ten similar mental questions as on page 1.

Problem Solving in context. At least 2-3 every day can be completed in the learners class work books.

Measurement: Time: Days of the week months of the year, birthdays on calendar, weather chart.

Problem Solving

- Garry and his 7 friends, each have 2 sweets. How many sweets do they have altogether?
- If I thread 15 blue beads and 4 yellow beads. How many green must I thread if I have to thread 20 beads in total?
- Judy pays R5 for travel costs per day. Complete the table.

day	1	2	3	4	5	6	7	8	9	10
R5	5	10								



1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60

Number Patterns integrated with Numbers, Operations and Relationships.

At this stage the Grade 2 learner must be able to count in 2s, 5s, 10s and understand the purpose thereof. Know:

- Bonds of 10.
- Value of 10.
- Count on from 10.
- See 10 in all 2-digit numbers to 20.

Ascending order / vertical number patterns/ smallest to biggest.

2s	5s	10s
2	5	10
4	10	20
6	15	30
8	20	40
10	25	50
12	30	60
14	35	70
16	40	80
18	45	90
20	50	100

Think about the following: can the learner:

- link counting in 2s, 5s, 10s to repeated addition and.
2, 4, 6, 8, ... ; 10, 20,
- Numbers increase or decrease in these multiples.
- See the patterns in the tables as the table above where costs are calculated.
- Understand that the bonds of 10, 11, etc. as number patterns.
- See the odd and even number patterns on the number line.

Count in 10s



Count in 5s



Talk about the patterns in number bonds.

$$\begin{array}{l}
 10 + 0 = 10 \\
 9 + 1 = 10 \\
 8 + 2 = 10 \\
 7 + 3 = 10 \\
 6 + 4 = 10 \\
 5 + 5 = 10 \\
 4 + 6 = 10 \\
 3 + 7 = 10 \\
 2 + 8 = 10 \\
 1 + 9 = 10 \\
 0 + 10 = 10
 \end{array}$$

$$\begin{array}{l}
 11 + 0 = 11 \\
 10 + 1 = 11 \\
 9 + 2 = 11 \\
 8 + 3 = 11 \\
 7 + 4 = 11 \\
 6 + 5 = 11 \\
 5 + 6 = 11 \\
 4 + 7 = 11 \\
 3 + 8 = 11 \\
 2 + 9 = 11 \\
 1 + 10 = 11 \\
 0 + 11 = 11
 \end{array}$$

Count in 5s from any number.

1. Numbers, Operations and Relationships.

Circle groups of 5 below and do the repeated addition sentence.



a. How many groups of 5? _____

b. Write your repeated addition sentence. _____

2. How many groups of 10? Write the number.



3. Complete the tables below.



chocolate	1	2	3	4	5	6	7	8	9	20
R2	2	4								

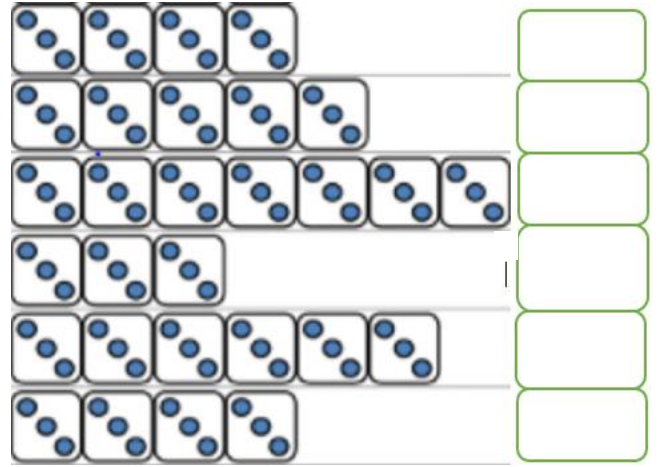
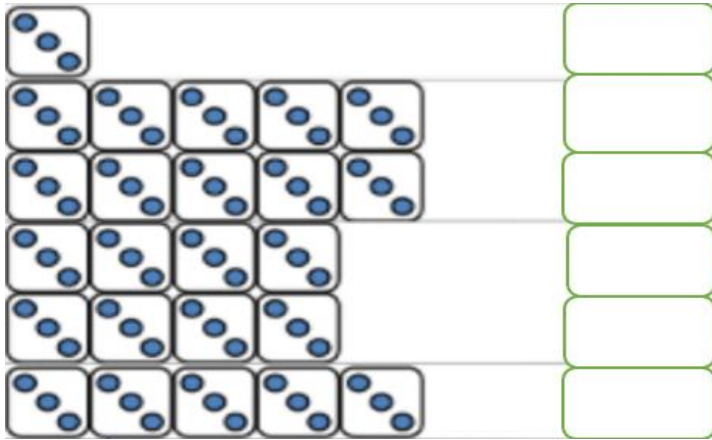


vase	2	3	1	6	7	5	9	10	8	4
roses	6	9								

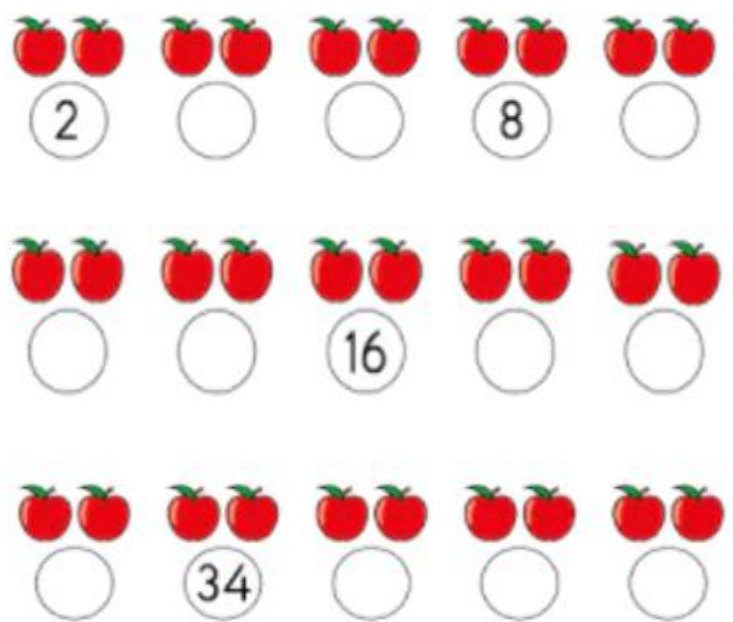
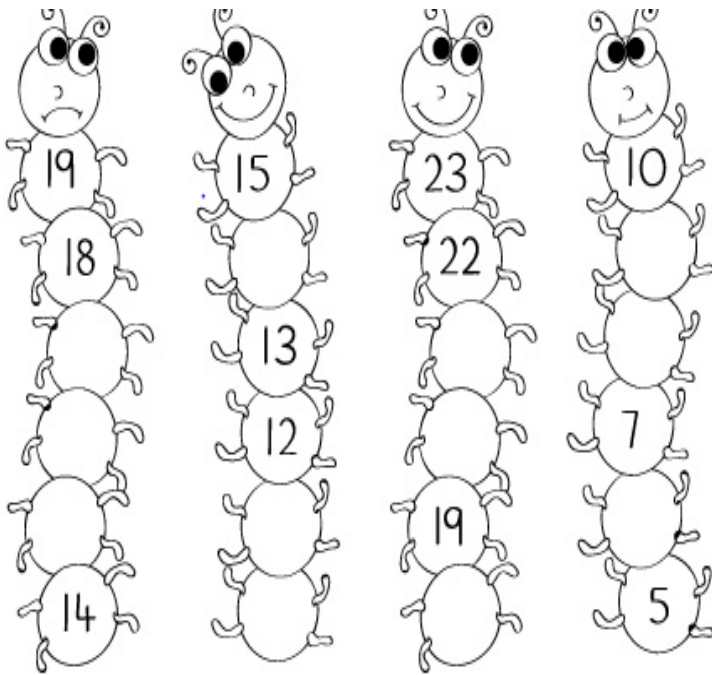


car	1	2	3	4	5	6	7	8	9	20
wheels	4	8								

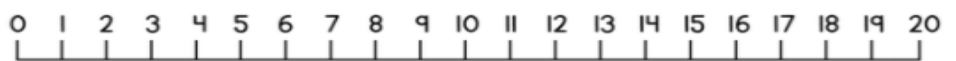
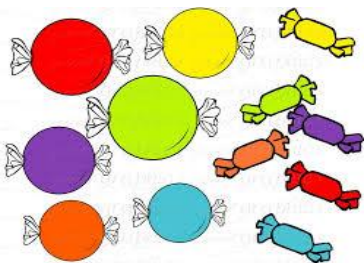
2a. Count in 3s (repeated addition)



b. Fill in the missing numbers.



c. Show $12 - 2$ on the number line.



Day 5 Revision of the work taught during the week.

Numbers, Operations and Relationships: Developing Number Sense.

Counting: Count forwards in 10s, to 60; Count backwards in 1s, 10s, from 60.

Mental calculations: Do at least ten similar mental questions as on page 1.

Problem Solving in context. At least 2-3 every day can be completed in the learners class work books.

Measurement: Time: Days of the week months of the year, birthdays on calendar, weather chart.

Revision of the Monday to Thursday's work...

Problem Solving (in learner classwork books)

Revise the work completed. Make sure the learners have a good understanding before you progress to teach other topics.

- ☐ Beryl has 12 sweets. Six are hard. How many are soft sweets?
- ☐ There are 9 sweets in the packet. Mom puts another 4 in the packet. How many sweets are there now?
- ☐ Mark is 13 years old. His sister is 4 years younger than him. How old is his sister?

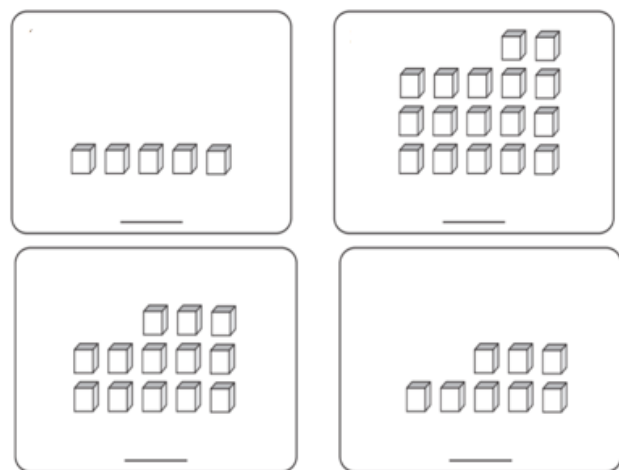
Each group must at least complete 2 written activities per day in their classwork books.

Numbers, Operations and Relationships: Must be done every day. (problem solving $\times 2$, comparing number, context free calculations).

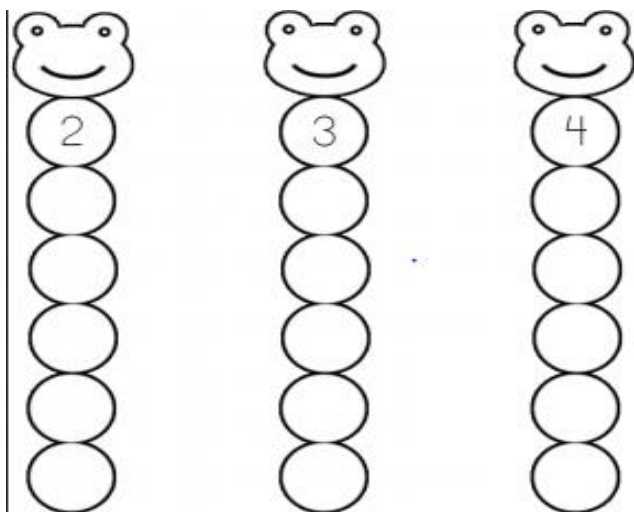
Suggested written activities for learner books must be related to the work the learner is familiar with and this must be completed independently by the learner.

Teachers are advised to consult the DBE workbook carefully for the activities that relate to the skills and knowledge revised or taught.

1. Draw two more and fill in the number.



2. Count in 2s, 3s and 4s



Teachers

The aim is to teach Maths for understanding and to develop the learner numerically.

The onus is on the teacher to provide the opportunity for much practise, teach well and remediate the learning gaps. Be sure to document your findings and keep track of the learners progress at all times. Keep the parents updated and involved as well. Good relationships will build confidence support and stimulate the child's love for learning.

Use the DBE Rainbow Workbook 1 for more practice activities on pages 8-12.