GPLMS

GAUTENG PROVINCE
Department: Education
REPUBLIC OF SOUTH AFRICA

GRADE 3

Mathematics

Term 1

MATHEMATICS FOUNDATION PHASE
GRADE 3 TERM 1 LESSON PLANS

CONTENTS

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GPLMS FP MATHS MANAGEMENT NOTES

1. GPLMS FP Mathematics Lesson plans 2014

The GPLMS FP mathematics lessons have been reworked based on comments from teachers, district officials and other members of the mathematics education community. The lesson plans are based entirely on the 2013 lesson plan set but the sequence of the lesson plans has been changed (lessons are clustered per topic) and the CAPS alignment has been checked and refined.

2. CORE METHODOLOGY

In front of this lesson plan set are notes on CORE METHODOLOGY. This tells you how to use each of the components of the lesson plans and how they fit together to create a well scaffolded maths lesson each day. There is an overview of the structure of each lesson plan, setting out the sequence in which content and activities are presented in each lesson. It also provides guidelines for the timing and use of the lesson plans. You need to read this as you prepare until you are fully familiar with the general lesson plan structure, pace and content.

3. MATHEMATICS PACK CONTENT:

Each pack comprises the following:

1. **Lesson Plan Overview:** This provides details on a daily basis of the lesson number, lesson topic, links to the DBE Workbooks for particular lessons when these apply and resources needed for the lesson.

2. **Resources for this term:** A stock list of the mathematical resources required in the lesson plan set for the duration of the term. Refer to this list to make sure you have the necessary resources for the term. The list is followed by the printable resources which are needed for this term.

3. **Assessment schedules and mark record sheets:** These provide the content, planning and recording sheets for the continuous assessment activities that should be done in the course of the term.

4. **Written assessment tasks and memos:** The written assessment tasks and memos are provided directly after the assessment schedules and mark record sheets.

5. **Lesson plans:** The term pack contains forty mathematics lesson plans that have been developed for the term. The lessons are sequenced according to topic and weighted according to CAPS requirements. The learners' classwork and homework activities that are provided in the GPLMS mathematics Learner Book are included each day, with solutions for easy reference.

   Note: There are also plans for general revision/orientation in the first week of school that you should work through with your learners before starting with the lesson plans. This provides an opportunity for you to reflect learners' mathematical understanding. We suggest that you write observation notes based on your observations of the learners while you work through these activities.

6. **Mental Maths Challenge cards:** A pack of one card per week (solutions are provided) that includes mental maths questions related to the weekly mental maths activities.

7. **Enrichment Activity cards:** A pack of four cards per week (solutions are provided) for learners who complete the day's classwork activities ahead of the class.

4. CURRICULUM ALIGNMENT

Each lesson has been carefully designed to align with the CAPS requirements. The lesson plans also integrate activities contained in the DBE Mathematics Workbooks.

GPLMS FP MATHS MANAGEMENT NOTES

5. SEQUENCE ADHERENCE

The content in each lesson has been carefully sequenced, it is therefore important that lessons are not skipped. Should you miss a mathematics lesson for any reason, you should continue the next day from where you last left off. Do not miss a lesson. You may need to speed up the pace of delivery to catch up the lesson schedule – by covering the lesson concept content of two consecutive days in one day. To do this you could cut out or cut back on some of routine activities like mental maths or homework reflection to save time until you are back on track with the dated delivery of the plans.

6. LESSON PREPARATION: KEY STEPS

The lesson plans provide a detailed lesson design for you to follow. However, to deliver the lessons successfully **you must do the necessary preparation yourself**. This entails a number of key steps that range from ensuring that you have a good understanding of the term focus through to checking the detailed preparation of resources needed for every lesson.

1. **Term focus:** Start by looking at the CAPS document and ***orientating*** yourself to the CAPS content focus for the term**.** It is important that you are clear about the content focus as this will frame everything you do in your mathematics lessons during the term.

2. **Prepare resources:** The resources needed for each lesson are listed in each lesson plan. It is very important that you ***check what is required for each lesson ahead of time*** so that you have all your resources ready for use every day. (E.g. counters, number boards, paper cut-outs, examples of shapes, etc.).
   - **Your lessons will not succeed if you have not prepared properly for them.**
   - If you do not have all the necessary resources readily available, see how best you can improvise e.g. get learners to collect bottle tops or small stones to be used for counting or make your own flard cards/number boards using pieces of card board and a marker pen.
   - Collect empty cooldrink cans, cereal boxes, washing powder boxes, plastic bottles etc. for the *shop activity* long in advance so that you have all the necessary goods to "stock your shop".
   - Use newspapers and magazines to cut out pictures that could be used in your teaching. If you have access to the internet, use Google to search for and print out pictures that you may need to use as illustrations in your lessons.

3. **Written classwork and homework activities:** When preparing your lessons, ***check the class work and homework activity requirements***. In some instances you will need to write information or draw some diagrams on the board for the learners to copy and do as part of their classwork activities. Also make sure that you mark the homework activities – use peer and individual marking and check homework yourself as often as you can.

4. **Lesson topic:** Think carefully about what it is that you will teach your learners in this lesson. ***Prepare a short introduction*** to the topic so that you can explain it in simple terms to your learners.

5. **Lesson vocabulary lists:** You will notice that the lesson vocabulary words have been listed in the teacher's notes for each lesson plan. They are also provided in the GPLMS lesson vocabulary glossary (with full explanations and diagrams) which has been prepared in multilingual format in all 10 languages used in GPLMS schools. ***Go through the lesson vocabulary each day as you prepare for the lesson***. These words are important as they are the language of mathematics that each learner needs to learn and understand in order to build a solid foundation and understanding of this subject. It is important to explain these words to your learners and practice using them with your learners during the lesson.

GPLMS FP MATHS MANAGEMENT NOTES

6. **Mental maths:** This start-up activity should not take more than 10-15 min. Counting should take about 5 min and the mental maths questions about 10 min. The purpose of this activity is to focus the learners on numeracy and to drill basic numeric concepts so that they can be easily recalled in other higher level work. ***Each day you need to prepare the full set of questions before the lesson starts.*** (Orally, write them on the board, make flashcards, make a chart or photocopy.) This is a mental activity for the learners. Once a week learners should do mental maths in written form so that there is some record of your daily mental maths activities. You can use the **Mental Maths Challenge Cards** for this purpose. Learners should not use concrete material to work out the answers in mental maths. If learners need to, let them use their fingers as a concrete aid during mental maths, but make a note of who they are and then spend time with them during remediation to help them with the basic skills. Mental maths skills improve hugely from Grade 1 to Grade 3. In Grade 1 learners might only manage 5 questions, especially when they have to write the answers, but by Grade 3 learners should manage 10 questions with written answers easily.

7. **Concept development:** This is the heart of the lesson – you will use this time to explain new mathematics content and skills to your learners. ***Make sure you have prepared for the teaching of the concepts before you teach.*** Also make sure that you have prepared all of the resources needed for the lesson so that you have them and you know how to use them effectively. This preparation needs to be done in advance so that you do not waste time during the lesson. Follow the activities in the lesson plan. ***Prepare yourself*** to assist learners with any questions they might have during the lesson.

8. **Lesson pace:** Once you have introduced the new concept, work through ***Activity 1*** of the lesson. Allow sufficient time for the learners to complete the activity - it is important that each learner works through the first activity. Then immediately move on to the next activity, provide a reasonable time for the learners to complete Activity 2, but do not wait for the last learner to finish before moving on. It is important to manage the pace of the lesson carefully, otherwise you will not manage to cover all the lesson content.

9. **Classwork activity:** This is an opportunity for learners to consolidate new concepts by doing classwork activities that provide them with the time to practice their maths and problem solving skills. It is important that you ***prepare yourself for the classwork activity*** – you need to assist learners as they do the classwork. Plan the timing of the lesson so that learners can go over the classwork together and do corrections in the lesson.

10. **Remediation activities:** Each day you should ***be prepared to identify learners*** that need some additional practice to consolidate their learning. Remediation activities have been built into each lesson to be used as needed. While the rest of the class are busy working through the classwork activities, you should spend some time with those that need extra support and help them to work through the remediation activities.

11. **Enrichment activities:** If learners successfully complete the daily classwork activities ahead of the rest of the class ***be prepared*** to give them the enrichment activities.

12. **Homework:** ***Prepare*** to allocate a few minutes at the end of each lesson to discuss the homework for the day – make sure that learners understand what it is that they have to do. Read over the word problems with the class if there is time to help them to cope with the problems when they go home to do the work.

13. **Lesson reflection**: Briefly jot down "*what worked well*" and "*what did not work so well*" in your lesson observation books so that you have a record for the next time you implement the same lesson/content again. The reflection can be ***used as a guide your preparation*** for general teaching, remediation and enrichment activities**.**

CORE METHODOLOGY

*Each day, the lesson plans give all of the following information. In the plans, each section of the plan simply has a heading to indicate the start of a new section. You need to **read this outline** to find out about the **core methodology** of the lesson plans and how they all work together to set the pace, sequence and content and resource requirements of the lessons.*

Topic	Each lesson has a topic with specific detail about the day's lesson.
Curriculum knowledge	The CAPS topics list gives all of the content related to the day's lesson. The curriculum references can be located in the expansion of content in the CAPS document for this term.
Lesson Vocabulary	A list of all mathematical terms used in the lesson is given here. They are also provided in the GPLMS lesson vocabulary glossary (with full explanations and diagrams) which has been prepared in multilingual format in all 10 languages used in GPLMS schools. ***Go through the lesson vocabulary each day as you prepare for the lesson***. These words are important as they are the language of mathematics that each learner needs to learn and understand in order to build a solid foundation and understanding of this subject. It is important to explain these words to your learners and practice using them with your learners during the lesson.
Prior Knowledge	The prior knowledge section gives information about content that learners should have learned in earlier grades that will be built on in this lesson. • You need to read through this section when you do your lesson preparation. • There is no time allocation to this part of the plan because it does not form part of the day's lesson. • Although this information does not form part of the day's lesson it may help you to assist learners who struggle to understand the content of the lesson because you can use it to help you diagnose learners' needs in relation to content they do not yet know that may be preventing them from understanding today's lesson. • Remediation may be needed on prior knowledge that you notice is not properly in place.
Assessment	An indication of the assessment activity for the day is given here. • On-going formal assessment should be done virtually every day in your class. This means you will record a mark for a few learners for a certain criterion from the curriculum each day. • Decide how many learners to assess each day so that you assess your whole class in the time allocated to each assessment activity. • Rubrics to be used to guide you in giving ratings for formal assessments are given in the assessment schedule. Each day you need to use the appropriate rubric for the assessment activity of that day. • A mark record sheet that you can use to record your term marks is given in the assessment schedule. Each of the assessment tasks for the term has been broken up into several smaller assessment activities.

CORE METHODOLOGY	
Remediation	Optional as required. You need to decide, based on your observation of the learners while you are teaching the lesson content, whether to use this content and with which learners. It will be done with a smaller group of learners/individual learners while the rest of the class is working through the classwork activity.
Enrichment	Optional as required. Ideally you should photocopy the enrichment cards, paste them, onto card board and laminate them so that they can be used as a resource, not only this year but in the future as well. Activities that you can use for enrichment opportunities for learners who have completed the lesson activities are provided in a set of enrichment activity cards at the end of the lesson plan set. Learners should work on these cards independently or with their peers who have also completed the classwork. You may need to explain some of the activities to the learners who use them. You should tell them to ask you questions it they have any. All learners who show an interest in the enrichment activities should be encouraged to work through the cards.
Mental Maths – 15 minutes	This is the first activity of the lesson. We recommend that you take at most 15 minutes to do the mental maths activity. There are two parts to the mental maths activity, a counting activity and some mental maths questions. Mental maths is not a concrete activity (as the title suggests). If there are learners who need concrete aids to complete the mental maths activities we suggest that you allow them to use their fingers to count on. • Observe which learners struggle with mental activities and make sure you spend time with them to assist them to reach the required level of competence by offering remediation activities using concrete aids. • The memo for the ten mental maths questions are given in the answer column in the lesson plans. There is a mental maths challenge cards set at the end of the lesson plans set, which you can use for the weekly recorded mental maths activity. We recommend that learners only do written mental maths once a week and orally on all other days. (It would be far better to do all ten questions per day but if you find that your children struggle to finish these in 10 minutes, do a minimum of 5 questions.)
Homework / Corrections – 15 minutes	This is the second activity of the lesson. We recommend that you take 15 minutes to remediate and correct the previous day's homework. Read out answers to all of the homework questions. Learners/peers mark the work. Choose one or two activities that you realise were problematic to work through in full with the whole class. In this part of the lesson you may reflect on the previous day's work. Allow learners the opportunity to write corrections as needed.

CORE METHODOLOGY	
Lesson Content – Concept Development – 30 minutes	This is the third activity of the lesson. We recommend that you should actively teach your class for 30 minutes – going through examples interactively with your learners. • Resources needed for the lesson are listed so that you know what resources to prepare. • Concepts covered in the lesson are given in a list that links to the CAPS topics. • Activities on the content that you will teach with worked examples and suggested explanations are given that you should go through with your class. • When you prepare to teach this lesson you need to make sure that you understand all of the mathematics that you will teach and that you can explain it fully and well to your class.
Classwork Activity – 25 minutes	This is the fourth activity of the lesson. We recommend that you allocate 25 minutes to the classwork activity. Here you find a set of activities that you will allow your learners to work through to consolidate what they have learned in the body of the lesson. You could to go over one or two of the classwork activities orally with the whole class before allowing the class to complete the activities on their own. • Learners do most of the activities in their maths books (an exercise book for learner maths writing activities). Some activities are done in the DBE workbook. • You should allow the learners opportunities to do these activities alone, in pairs and in groups so that they experience working alone as well as with their peers. • Wrap up the lesson each day by giving the learners the answers to the classwork and allow time for corrections to be written if and when necessary. There is a Classwork activity pack at the end of the lesson plans set. The pack presents the classwork activities for every day, with several days per page, so that learners can cut out the classwork activity and paste it into their homework books. Learners will have to write their working as they do the classwork activities on a daily basis. This will help promote learner's writing.
Homework Activity – 5 minutes	This is the fifth and final activity of the lesson. We have allocated 5 minutes to give you time to tell the learners about the homework each day. Here you find a set of activities on the day's content that you can set for your class to do for homework, to consolidate the maths that you have taught them today. Homework also promotes learner writing and development of their mathematical knowledge. There is a homework pack at the end of the lesson plans set, similar to the classwork pack.
Reflection	Each day there is a reminder to you that you should note your thoughts about the day's lesson. You will use these notes as you plan and prepare for your teaching.

LESSON PLAN AND RESOURCE OVERVIEW

Pg	Lesson	Date	Lesson name	DBE	Resources required	Date completed
			WEEK 1			
	Lesson 1		Numbers 0-99	-	100 grids, flashcards with number names 'zero'-'nineteen', 'twenty'-'ninety', flard cards 0-99, base ten blocks	
	Lesson 2		Place value up to 99	Worksheet 18 (pgs 38 and 39)	Flard cards, base ten blocks	
	Lesson 3		Compare and order numbers up to 99	Worksheet 17 (pgs 36 and 37)	Base ten blocks (remediation only), blank 100 grid	
	Lesson 4		Numbers between a 100 to 200	Worksheet 33 (pgs 76 and 77)	Number board (101-200), number/flard cards	
	Lesson 5		Number 200 to 300	Worksheet 41 (pgs 96 and 97)	Number cards and number name cards 200-300, number/flard cards	
			WEEK 2			
	Lesson 6		Number 300 to 400	Worksheet 43 (pgs 100 and 101)	Number cards and number name cards 200-300, number/flard cards	
	Lesson 7		Number 400 t0 500	Worksheet 45 (pgs 104 and 105)	Number cards and number name cards 400-500, number/flard cards	
	Lesson 8		Addition on a Number line	Worksheet 45 (pgs 104 and 105)	n/a	
	Lesson 9		Subtraction on a Number line	Worksheet 20a &b (Page 42 and 45)	n/a	
	Lesson 10		Addition and Subtraction	Worksheet 46 (pgs 106-107)	n/a	

LESSON PLAN AND RESOURCE OVERVIEW						
Pg	**Lesson**	**Date**	**Lesson name**	**DBE**	**Resources required**	**Date completed**
			WEEK 3			
	Lesson 11		Money	Worksheet 26 (pgs 60 and 61) & Worksheet 8 (pgs 18 and 19)	Goods/ products for shop e.g. empty containers (cereal boxes, cool drink cans, tins, washing powder boxes, plastic milk bottles, etc. pictures and cut outs from supermarket fliers). Range of play coins and notes to the value of R50,00 for each pair	
	Lesson 12		Fives (equivalent groups) and repeated addition	Worksheet 24 (pg 54)	Counters	
	Lesson 13		Fives arrays	Worksheet 24 (pg 55)	n/a	
	Lesson 14		Fives - sharing and grouping		Counters / unifix blocks	
	Lesson 15		Twos (equivalent groups) and repeated addition	Worksheet 25a (p56 - 57)	Counters	
			WEEK 4			
	Lesson 16		Twos arrays	Worksheet 25b (p58 to 59)	n/a	
	Lesson 17		Twos - sharing and grouping	Worksheet 30 (p 68 to p 71)	Counters/ unifix blocks	
	Lesson 18		Threes (equivalent groups) and repeated addition	Worksheet 27 (p 62)	Counters	
	Lesson 19		Threes arrays	Worksheet 27 (p 63)	n/a	
	Lesson 20		Threes - sharing and grouping	Worksheet 30a (p68-69)	Counters/ unifix blocks,	

LESSON PLAN AND RESOURCE OVERVIEW						
Pg	**Lesson**	**Date**	**Lesson name**	**DBE**	**Resources required**	**Date completed**
			WEEK 5			
	Lesson 21		Fours (equivalent groups) and repeated addition	Worksheet 28 (p 64)	Counters	
	Lesson 22		Fours arrays	Worksheet 28 (p 65)	n/a	
	Lesson 23		Fours - sharing and grouping	Worksheet 30b (p70 to p71)	Counters, unifix blocks	
	Lesson 24		Data -Tally tables	Worksheet 16 (p34 to p35)	n/a	
	Lesson 25		Data -Bar graph and tables	Worksheet 22 (pgs 50 and 51)	n/a	
			WEEK 6			
	Lesson 26		Data -Tallies and tables	Worksheet 36 (pgs 84 and 85)	n/a	
	Lesson 27		Fractions -Sharing leading to fractions	Worksheet 31 (p 72)	Cones, sharing circles, hula hoops, counters	
	Lesson 28		Fractions- Fractions as a parts of a group	Worksheet 31 (p 73)	n/a	
	Lesson 29		Fractions - Fraction shapes	Worksheet 57 (p 128-129)& Worksheet 7 (p 16-17)	Fraction Strips, fraction circles	
	Lesson 30		Capacity/volume	Worksheet 14 (p 30)	Spoons, clear/see-through cups (2 cups for each group and an extra set for the teacher for demonstration). Various other containers e.g. jugs, 1, 2 & 3 litre plastic bottles, margarine containers.	

LESSON PLAN AND RESOURCE OVERVIEW						
Pg	**Lesson**	**Date**	**Lesson name**	**DBE**	**Resources required**	**Date completed**
			WEEK 7			
	Lesson 31		Capacity/volume	Worksheet 14 (p 31)	Containers on which you can see the capacity eg. 250 ml cup, teaspoon, an empty 1litre bottle, pictures of products on which you can see the capacity eg. 250 ml cup, teaspoon, an empty 1litre	
	Lesson 32		Time - Calendars	Worksheet 12 (p 74 and 75)	Current calendar (1 per pair)	
	Lesson 33		Time - Analogue time	Worksheet 32 (p 74 and 75) & Worksheet 12 (p 26)	Analogue and Digital clocks	
	Lesson 34		Time – Calculating time passed	Worksheet 12 (p 27)	Analogue clock digital clock	
	Lesson 35		2-D shapes- Straight and curved sides	Worksheet 10 (p 22-23)	labels and cut-outs of rectangle, triangle, circle, square, a bag/pillowcase to put the shapes into.	
			WEEK 8			
	Lesson 36		2-D shapes- Straight and round sides	Worksheet 11 (p 24 and 25)	3-D shapes: cylinder, cone, pyramid, sphere, prism/box large sheets of paper, magazines	
	Lesson 37		Number patterns in 5	Worksheet 29 question 1a (p 66) & Worksheet 53 (pgs 120-121)	1-200 number board, counters	
	Lesson 38		Number patterns in 3	Worksheet 29 question 1c (p 66) & Worksheet 58 (pgs 124)	100-200 Number board, counters	
	Lesson 39		Number patterns in 4	Worksheet 29 question 1d (p 66) & Worksheet 58 (pgs 125)	100-200 Number board, counters	
	Lesson 40		Geometric patterns	Worksheet 47 (p 109)	Worksheet 9 (p 21) Worksheet 47 (p 109)	

RESOURCE LIST TERM 1

This is a list of the mathematical resources that you will need in this term. You need to make sure that you have them for the lessons for which they are recommended. If you do not have them speak to your coach about it so that GPLMS can do an audit of the resources not present in your school.

1. Flard Crads
2. 101-200 Number board (lesson 4)
3. Fraction strips (lesson 29)
4. Fraction circles (lesson 29)
5. Analogue clock (lesson 34)
6. 1-200 number boards (lesson 37)

Resources for each day of teaching

There are also other resources such as informal resources (such as old magazines, pieces of string, scrap paper, etc.) that you may need in certain lessons. You should have a careful look at the list of resources needed for each lesson which is given in the lesson plans each day to see which resources are needed for that day. Prepare yourself so that you have the necessary resources for the lessons on a daily basis.

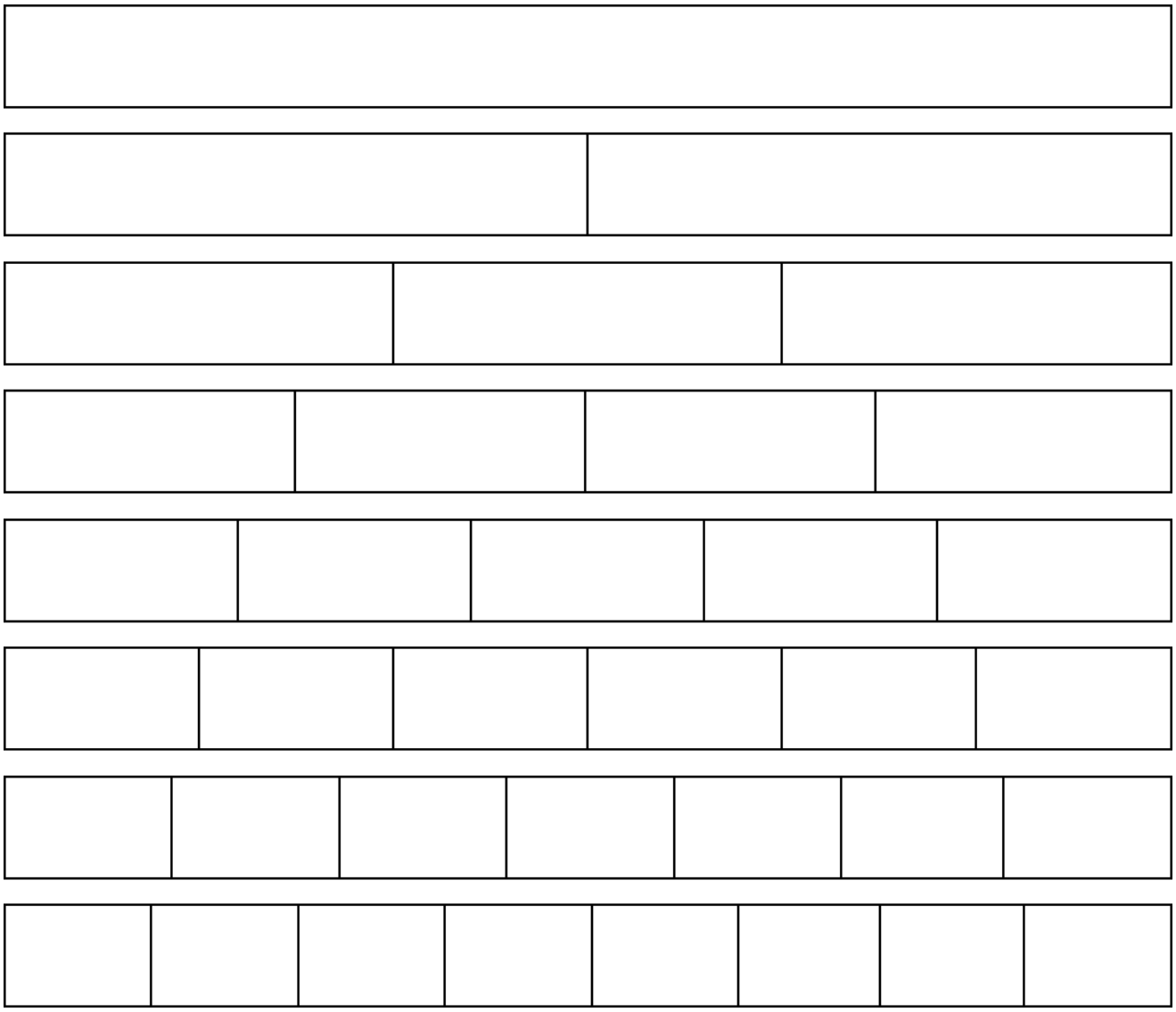
Flard cards

1	1	0	1	0	0
2	2	0	2	0	0
3	3	0	3	0	0
4	4	0	4	0	0
5	5	0	5	0	0
6	6	0	6	0	0
7	7	0	7	0	0
8	8	0	8	0	0
9	9	0	9	0	0
		1	0	0	0

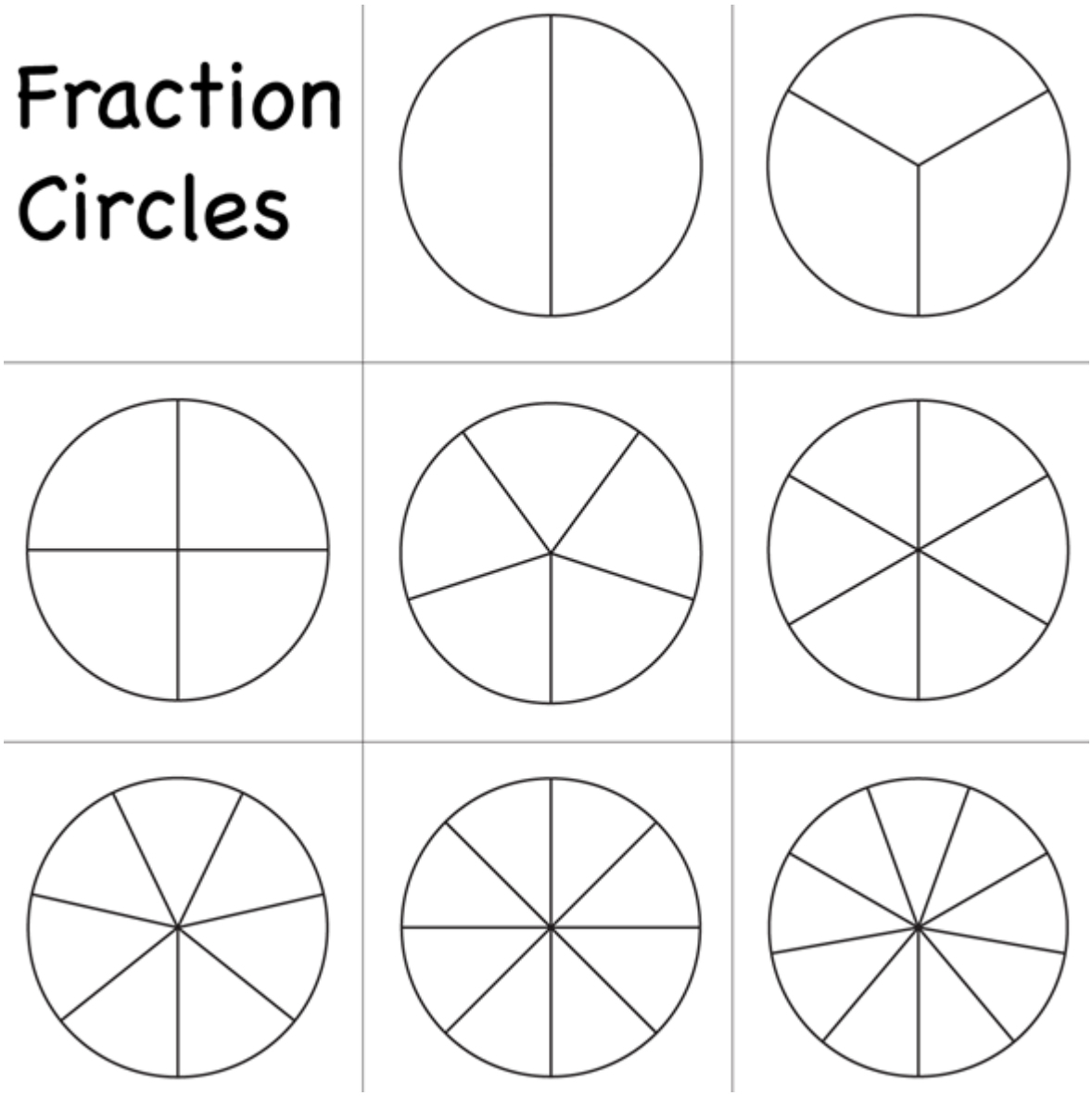
101 – 200 Number board (lesson 4)

101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

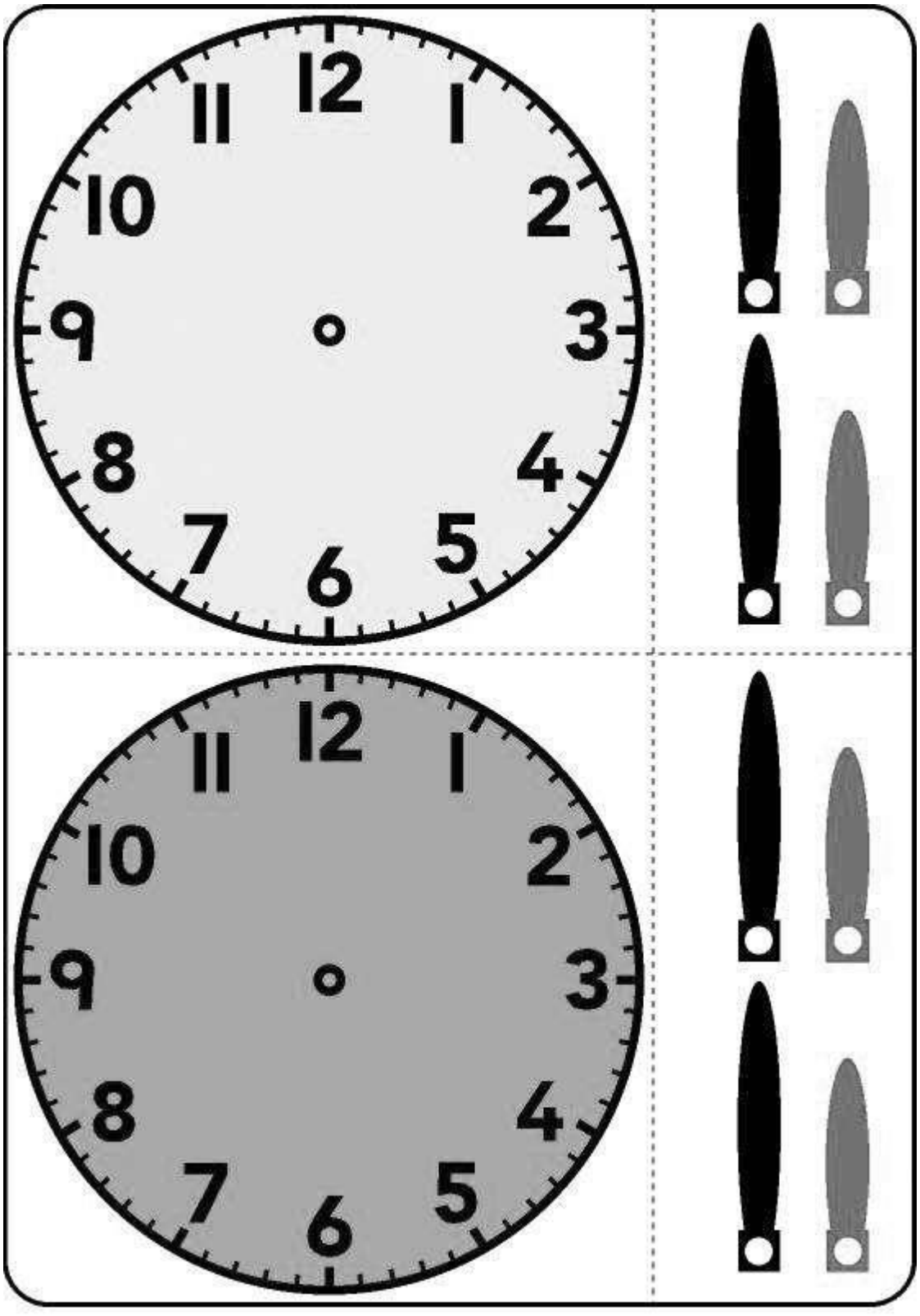
Fraction strips (lesson 29)



Fraction circles (lesson 29)



Analogue clock (lesson 34)



1-200 number board (lesson 37)

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
101	102	103	104	105	106	107	108	109	110
111	112	113	114	115	116	117	118	119	120
121	122	123	124	125	126	127	128	129	130
131	132	133	134	135	136	137	138	139	140
141	142	143	144	145	146	147	148	149	150
151	152	153	154	155	156	157	158	159	160
161	162	163	164	165	166	167	168	169	170
171	172	173	174	175	176	177	178	179	180
181	182	183	184	185	186	187	188	189	190
191	192	193	194	195	196	197	198	199	200

ASSESSMENT – Term Plan

The term plan gives an overview of how the assessment programme fits into the weekly lesson plans

Week	Activities	Assessment	Comment
15 Jan – 17 Jan	Orientation lessons.	Informal assessment based on orientation lesson plans	The orientation lesson plans give you an opportunity to revise and to assess baseline knowledge and skills of your learners. Make notes of your observations in your observation book so that you can refer to them when you teach these concepts in the term.
20 Jan – 24 Jan	Orientation lessons.	Informal assessment based on orientation lesson plans	
27 Jan – 31 Jan	Lesson plans week 1	Activity 1 Oral assessment task 1	• Go through the **prior knowledge** information given each day so that you can remediate learner errors and misconceptions. • Teach daily according to the plans, **preparing well** the day before you teach. • Use the appropriate **resources** each day to give your learners the opportunity for concrete experience related to the concepts being taught. • Take note of the **continuous formal assessment** requirements of the lesson and record the marks of the learners progressively through the term. • Ensure that learners complete the set **classwork** and **homework** activities every day. • **Go over classwork and homework** on a daily basis using individual and peer marking which you check at regular intervals yourself. Give the learners the chance to ask questions and correct their errors.
3 Feb – 7 Feb	Lesson plans week 2	Activity 2 Oral assessment task 1	
10 Feb – 14 Feb	Lesson plans week 3	Activity 3 Practical assessment task 1	
17 Feb – 21 Feb	Lesson plans week 4	Activity 4 Oral assessment task 1 Activity 5 Written assessment task 1 **Assessment Task 1 completed**	
24 Feb – 28 Feb	Lesson plans week 5	Activity 1 Practical assessment task 2	
3 Mar – 7 Mar	Lesson plans week 6	Activity 2 Practical assessment task 2	
10 Mar – 14 Mar	Lesson plans week 7	Activity 3 Oral assessment task 2 Activity 4 Written assessment task 2	
17 Mar – 21 Mar	Lesson plans week 8	Activity 5 Oral assessment task 2 **Assessment Task 2 completed**	
24 Mar – 28 Mar	Revision and consolidation	No formal assessment this week	Use the 5 days to recap key maths ideas that your learners need to consolidate from the term.

ASSESSMENT TASK 1

Note that you will not be able to assess your learners in one day, so you should assess a group of learners each day until they have all been observed for the oral and practical activities

Activity 1 – Week 1: 27 Jan to 31 Jan: ORAL

Number, operations and relationships: Counting

You can do this as a fun activity so the counting does not become too repetitive.

Counts up to xx

Level		Observation Criterion
1	**0 – 29%**	Unable to count less than xx objects reliably
2	**30 – 39%**	Counts out less than xx objects reliably, saying the names with errors most times
3	**40 – 49%**	Counts out xx objects reliably, saying the names in sequence with a few errors most times
4	**50 – 59%**	Counts out xx objects reliably, saying the names in sequence with a few errors sometimes
5	**60 – 69%**	Counts out xx objects reliably, saying the names correctly in sequence.
6	**70 -79%**	Counts out more than xx objects reliably, saying the names in sequence correctly
7	**80 – 100%**	Counts out more than xx objects reliably, saying the names in sequence correctly and confidently

Activity 2 – Week 2: 3 Feb to 7 Feb: PRACTICAL

Number, operations and relationships: Addition and subtraction

Add and subtract in the number range

Level		Criterion
1	**0 – 29%**	Unable to add or subtract correctly
2	**30 – 39%**	Able to add and subtract by counting all on or back
3	**40 – 49%**	Able to add and subtract by counting on or back from the first number
4	**50 – 59%**	Able to add and subtract without counting but makes several mistakes and lapses back into counting sometimes
5	**60 – 69%**	Able to add and subtract without counting but makes a few mistakes
6	**70 -79%**	Able to add and subtract in the number range without making any mistakes
7	**80 – 100%**	Able to add and subtract beyond the number range without making any mistakes

Activity 3 – Week 2: 10 Feb to 14 Feb: ORAL

Number, operations and relationships: Addition and subtraction

Add and subtract in the number range

Level		Criterion
1	**0 – 29%**	Unable to add or subtract correctly
2	**30 – 39%**	Able to add and subtract by counting all on or back
3	**40 – 49%**	Able to add and subtract by counting on or back from the first number
4	**50 – 59%**	Able to add and subtract without counting but makes several mistakes and lapses back into counting sometimes
5	**60 – 69%**	Able to add and subtract without counting but makes a few mistakes
6	**70 -79%**	Able to add and subtract in the number range without making any mistakes
7	**80 – 100%**	Able to add and subtract beyond the number range without making any mistakes

Activity 4 – Week 4: : 17 Feb to 21 Feb: ORAL

Number, operations and relationships: Number

Counting and recognition of numerals up to xx

Level		Criterion
1	**0 – 29%**	Unable to count less than xx objects reliably
2	**30 – 39%**	Counts out less than xx objects reliably, saying the names with errors most times
3	**40 – 49%**	Counts out xx objects reliably, saying the names in sequence with a few errors most times
4	**50 – 59%**	Counts out xx objects reliably, saying the names in sequence with a few errors sometimes
5	**60 – 69%**	Counts out xx objects reliably, saying the names correctly in sequence.
6	**70 -79%**	Counts out more than xx objects reliably, saying the names in sequence correctly
7	**80 – 100%**	Counts out more than xx objects reliably, saying the names in sequence correctly and confidently

Activity 5 – Week 4: 17 Feb to 21 Feb: WRITTEN TASK

Number operations and relationships

Number names and values, addition and subtraction

Questions	Assign levels according to the following totals		
Question 1: 1 mark Question 2: 1 mark Question 3: 2 marks Question 4: 2 marks Question 5: 3 marks Question 6: 2 marks Question 7: 1 mark Question 8: 1 mark Question 9: 1 mark Total 25 Marks	Marks	Percentage	Level
	0-7	0-29	1
	8-9	30-39	2
	10-12	40-49	3
	13-14	50-59	4
	15-17	60-69	5
	18-19	70-79	6
	20-25	80-100	7

ASSESSMENT TASK 2

Note that you will not be able to assess your learners in one day, so you should assess a group of learners each day until they have all been observed for the oral and practical activities

Activity 1 – Week 5: 24 Feb – 28 Feb: PRACTICAL

Measurement: Length

Order and compare according to length

Level		Observation Criterion
1	**0 – 29%**	Does not understand simple length concepts
2	**30 – 39%**	Needs help to describe simple length concepts
3	**40 – 49%**	Knows and can describe: length - long, short but makes errors most times
4	**50 – 59%**	Knows and can describe: length - long, short but makes few errors sometimes
5	**60 – 69%**	Knows and can describe: length - long, short almost always correctly
6	**70 -79%**	Knows and can describe: length - long, short always correctly
7	**80 – 100%**	Knows and can describe: length - long, short correctly,

		competently and confidently

Activity 2 – Week 6: 3 Mar – 7 Mar: PRACTICAL

Space and shape: Ball and Box shaped objects

Identify, recognize, name and sort ball and box shaped objects

Level		Criterion
1	**0 – 29%**	Cannot recognize 3 D (balls and boxes) objects and position, confused
2	**30 – 39%**	Needs help to recognize 3 D objects (balls and boxes) and can describe position
3	**40 – 49%**	Recognize 3 D objects and 2 D shapes and can describe position and direction but makes errors most times
4	**50 – 59%**	Recognize 3 D objects and 2 D shapes and can describe position and direction but makes few errors sometimes
5	**60 – 69%**	Recognize 3 D objects and 2 D shapes and can describe position and direction almost correctly
6	**70 -79%**	Recognize 3 D objects and 2 D shapes and can describe position and direction always correctly
7	**80 – 100%**	Recognize 3 D objects and 2 D shapes and can describe position and direction competently

Activity 3 – Week 7: 10 Mar – 14 Mar: ORAL

Patterns and Algebra: Number patterns

Number patterns up to 20

Level		Criterion
1	**0 – 29%**	Unable to complete number patterns
2	**30 – 39%**	Able to complete number patterns when only one term is required
3	**40 – 49%**	Able to complete number patterns in the range to 10 when a number of terms are required but with some mistakes
4	**50 – 59%**	Able to complete number patterns in the range to 10 when a number of terms are required with no mistakes
5	**60 – 69%**	Able to complete number patterns in the range to 20 when a number of terms are required but with some mistakes
6	**70 -79%**	Able to complete number patterns in the range to 20 when a number of terms are required with no mistakes
7	**80 – 100%**	Able to complete number patterns beyond the range to 20 when a number of terms are required with no mistakes

Activity 4 – Week 7: 10 Mar to 14 Mar: WRITTEN TASK

Number operations and relationships, Patterns and Algebra, Measurement, Geometry

Addition and subtraction, geometric patterns, capacity, mass, 3-D shapes

Questions	**Assign levels according to the following totals**		
Question 1: 1 mark Question 2: 1 mark Question 3: 2 marks Question 4: 2 marks Question 5: 3 marks Question 6: 2 marks Total 25 Marks	Marks	Percentage	Level
	0-7	0-29	1
	8-9	30-39	2
	10-12	40-49	3
	13-14	50-59	4
	15-17	60-69	5
	18-19	70-79	6
	20-25	80-100	7

Activity 5 – Week 8: 17 Mar to 21 Mar: ORAL

Measurement: Time

Longer and shorter times.

Level		**Criterion**
1	**0 – 29%**	Does not understand simple time concepts
2	**30 – 39%**	Needs help to give examples of simple time concepts
3	**40 – 49%**	Knows and can give examples: time - longer, shorter but makes errors most times
4	**50 – 59%**	Knows and can give examples: time - longer, shorter but makes few errors sometimes
5	**60 – 69%**	Knows and can give examples: time - longer, shorter almost always correctly
6	**70 -79%**	Knows and can give examples: time - longer, shorter always correctly
7	**80 – 100%**	Knows and can give examples: time - longer, shorter correctly, competently and confidently

Term 1: Grade 3 Written Assessment Tasks and Memos

Mathematics Assessment Task 1 Grade 3

Surname:	Boy | Girl
Name:	
Date of birth:	
School:	
Province:	
EMIS no:	

Total: 20 marks

Question 1 (2)

Write the number symbol for the following number:

a. Seventy six _____

b. Two hundred and nine _____

Question 2 (2)

Write this number in words:

a. 18

_____

b. 154

_____

Question 3 (2)

Circle the biggest number and make a cross over the smallest number.

160	106	116	166

Question 4 (3)

Complete the following:

a) 64= _____tens + _____units

b) 3 units + 9 tens + _____= 193

Question 5 (1)

Write down one number between 21 and 32 that belongs to the family of five:

_____

Question 6

Complete the following patterns: (4)

a) 138, 140, 142, _____,

b) 76, 74, _____, 70

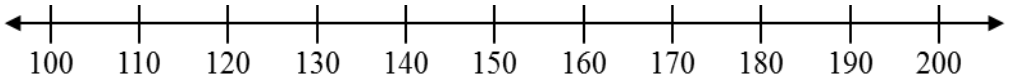
c) 60, _____, 70, 75

d) _____,120, 115, 110

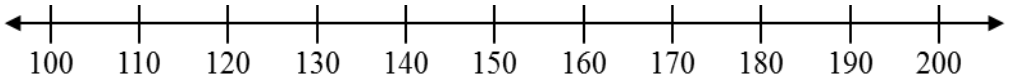
Question 7 (2)

Use the number lines to calculate

a. 125 + 30 = _____



b. 190 – 45 = _____



Question 8 (1)

I have 9 bags. There are 2 sweets in each bag. How many sweets do I have altogether?

Question 9 (3)

Apples cost 90c. Neo has four 50c coin and two 20c coins.

a. How much money does Neo have?

_____

b. How much will two apples cost?

_____

c. How much money will he have left?

_____

Grade 3 Term 1 Assessment 1 MEMO

Question	Marks : 20
1. (1 mark for each correct answer) a. 76 b. 209	(2)
2. (1 mark for each correct answer) eighteen one hundred and fifty four	(2)
3. (1 mark for each correct answer) 160 | ~~106~~ | 116 | 166	(2)
4. (1 mark for each correct answer) c) 64= __6__tens + __4__units d) 3 units + 9 tens + **1 hundred**= 193	(3)
5. (1 mark for the correct answer) 25 OR 30	(1)
6. (1 mark for each correct answer) e) 144 f) 72 g) 65 h) 125	(4)
7. (1 mark for each correct answer) a) 155 b) 145	(2)
8. (1 mark for each correct answer) 9 x 2 = 18 18 sweets	(1)
9. (1 mark for each correct answer) a) 4 x 50c = R2,00 and 2 x 20c = 40c He has R2,40 b) 2 x 90c = R1,80 OR 180c c) R2,40 – R1,80 = 60c	(3)

Mathematics Assessment Task 2 Grade 3

Surname:	Boy | Girl
Name:	
Date of birth:	
School:	
Province:	
EMIS no:	

Total: 25 marks

Question 1 (4)

a. Underline the numbers that are not multiples of 4?

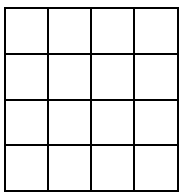
32, 21, 28, 27, 36, 24

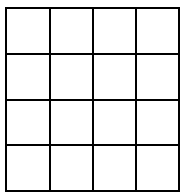
b. Count in 5s:

_____, _____ 165; 160; 155

Question 2 (2)

Shade one half of each shape below in a different way:





Question 3 (5)

There are 9 boys and 6 girls.

a. How many children are there altogether? _____

b. How many boys are there? _____

c. What fraction of the children are boys? _____

d. How many girls are there? _____

e. What fraction of the children are girls? _____

Question 4 (3)

340 ml

1 000 ml

a. What is the capacity of the milk carton? _____

b. What is the capacity of the Fanta can? _____

c. Which container has the greater capacity? _____

Question 5 (2)

a. Write half past 7 in digital time:

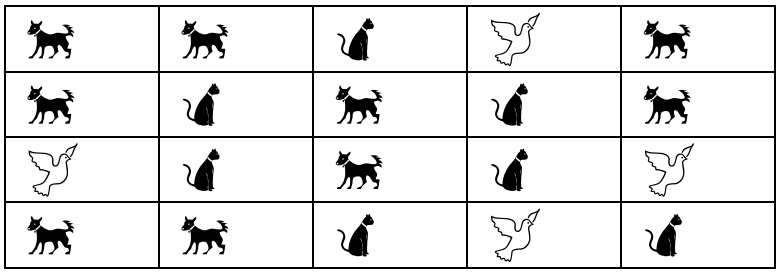
_____

b. Write 05:30 in analogue time

_____

Question 6 (9)

The children in your class have dogs, cats, fish and birds as pets.



a) Use the tally table to sort the data and find the number of each type of pet.

Pet	Tally	Frequency
Dogs		
Cats		
Birds		

b) What is the most popular pet?

_____

c) What is the least popular pet?

_____

d) What is the difference between the number of cats and the number of birds as pets?

_____

Grade 3 Term 1 Assessment 2 MEMO

<table>
<tr><td>Question</td><td>Marks : 25</td></tr>
<tr><td>1. (1 mark for each correct answer)
a. 32, 21, 28, 27, 36, 24
b. 175, 170
c.</td><td>(4)</td></tr>
<tr><td>2. (1 mark for each correct answer)
 
(answers may vary)</td><td>(2)</td></tr>
<tr><td>3. (1 mark for each correct answer)
e) 15
f) 9
g) three fifths
h) 6
i) two fifths</td><td>(5)</td></tr>
<tr><td>4. (1 mark for the correct answer)
a) 1 000ml
b) 340 ml
c) The milk carton</td><td>(3)</td></tr>
<tr><td>5. (1 mark for each correct answer)
i) 07:30
j) 5.30 am</td><td>(2)</td></tr>
<tr><td>6. (1 mark for each correct answer)
c) 155
<table><tr><th>Pet</th><th>Tally</th><th>Frequency</th></tr><tr><td>Dogs</td><td>𝍸 ||||</td><td>9</td></tr><tr><td>Cats</td><td>𝍸 ||</td><td>7</td></tr><tr><td>Birds</td><td>||||</td><td>4</td></tr></table>
d) Dog
e) Bird
f) 3</td><td>(9)</td></tr>
</table>

Term 1: Grade 3 Suggested Mark Record Sheet

Learner Name	Surname	Assessment Task 1					Task Level	Assessment Task 2					Task Level	Term Level
		Activities						Activities						
		1	2	3	4	5		1	2	3	4	5		
		Oral (week 1)	Practical (week 2)	Oral (week 3)	Oral (week 4)	Written (week 4)		Practical (week 5)	Practical (week 6)	Oral (week 7)	Written (week 7)	Oral (week 8)		

Week 1

Lesson 1: Numbers 0 – 99

Teacher's notes

CAPS Topics: 1.2 Count forwards and backwards, 1.3 Number symbols and number names

Lesson Vocabulary: Number symbols and number names (0-99)

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Recognise, identify, read and write numbers symbols 0-200.
- Recognise, identify, read and write numbers names 0-100.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths 15 minutes

Counting - 5 minutes

- Count forwards in 1's from any number between 0 and 100.
- Count backwards in 1's from any number between 100 and 0.

Mental maths activity - 10 minutes

Which is the bigger number?

		Answer			Answer
1.	34 or 43	43	6.	67 or 76	76
2.	27 or 72	72	7.	81 or 18	81
3.	44 or 55	55	8.	69 or 96	96
4.	53 or 35	53	9.	85 or 58	85
5.	24 or 42	42	10.	56 or 65	65

2. Homework/Corrections – 15 minutes

Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development – 30 minutes

Resources:

100 grids, flashcards with number names 'zero'- 'nineteen', 'twenty'-'ninety', flard cards 0-99, base ten blocks

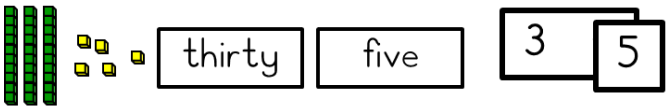
DBE workbook activities relevant to this lesson:

Concepts:

- Recognise, identify, read and write numbers symbols 0-99.
- Recognise, identify, read and write numbers names 0-99.

Remediation: For children who confuse the tens and the teens begin by revising the teens thoroughly before proceeding with the tens.

Use base ten blocks and unit blocks, flash cards and flard cards to make teens and tens. e.g.



Enrichment: See Enrichment Activity Cards

Activity 1
Learners to use their 100 grids.

Call out number names randomly and ask learners to point to the correct symbols. Include pairs of numbers where the digits have been reversed eg. 19 and 91 / 57 and 75 and teen and ten numbers that sound similar eg. 19 and 90 / 70 and 17

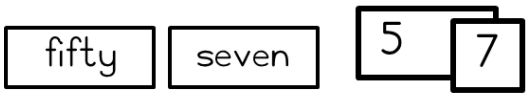
Use flash cards to revise the following number names:

- 'zero'- 'nineteen'
- 'twenty'-'ninety'

Learners work in groups of four. Give each group a set of flard cards from '0' – 99' and a set of cards with number names as follows:

- 'zero- nine'
- 'ten, -ninety ' (multiples of 10)
- 'eleven-nineteen'

Ask the groups to show the number 'fifty seven' with the flard cards and number name cards eg.



Do the same with the other numbers, e.g. eighty nine, twenty six, seventy seven, seventy, forty, fourteen, thirty nine, ninety three, etc.

Make sure that you use the 'ten' numbers together with the 'teen' numbers and look out for children who confuse these.

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 1: Numbers 0 to 99

Classwork

1. Write the following as number names.
   a) 46 (forty six)
   b) 18 (eighteen)
   c) 50 (fifty)
   d) 37 (thirty seven)
   e) 73 (seventy three)
2. Write the following as number symbols.
   a) fifteen (15)
   b) ninety one (91)
   c) sixty six (66)

Homework

1. Write the following as number names.
   a) 39 (thirty nine)
   b) 11 (eleven)
2. Write the following as number symbols.
   a) sixty eight (68)
   b) eighty (80)

Lesson 2: Place value up to 99

Teacher's notes

CAPS Topics: 1.2 Count forwards and backwards and 1.3 Number symbols and number names 1.5 Place value

Lesson Vocabulary: Place value, digit and number, tens , units

Prior knowledge

In Grade 2 the learners should have learnt how to:

- build up and break numbers up to 99.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 1's from any number between 0 and 200.
- Count backwards in 1's from. any number between 200 and 0.

Mental maths activity - 10 minutes

Write down the numbers from the smallest to the greatest

		Answer			Answer
1.	8,5,9	5,8,9	6.	39, 9, 29	9, 29, 39
2.	14,11,15	11,14,15	7.	34, 43, 33	33, 34, 43
3.	21, 19, 23	19,21,23	8.	29, 11, 37	11, 29, 37
4.	40, 14, 41	14, 40, 41	9.	50, 38, 47	38, 47, 50
5.	24, 42, 41	24, 41, 42	10.	24, 31, 9	9, 24, 31

2. Homework/Corrections – 15 minutes

Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development – 30 minutes

Resources: Flard cards, base ten blocks

DBE workbook activities relevant to this lesson:

- Worksheet 18 (pgs 38 and 39)

Concepts:

- Recognise the place value of numbers to 99.

Remediation:

For children who struggle with this area of work, do more revision with concrete apparatus.
Ask learners to show the following numbers with their base ten blocks: 14, 26, 60, 7 and 99.

Enrichment: See Enrichment Activity Cards

Activity 1
Small group work

- Place flard cards up to 99 on the learners' desks. Ask the learners to show you 43. Ask the learners to show you 53. Ask the learners what they did to change the 43 into 53 and why. (Possible answer: I swopped the 40 card for a 50 card because I know that 40 is ten less than 50).
- Do the same with 75 and 55/ 63 and 66/ 40 and 30

Activity 2
Revise breaking down of numbers on the boards

- 53 = 5 tens and 3 units
- 70 = 7 tens and 3 units
- 514 = 5 hundreds and 1 ten and 4 units

Activity 3
Write 72 on the board and ask:

- What does the 7 represent? (7 tens or 70)
- What does the 2 represent? (2 units or 2)
- Do the same with 60, 46, 78

Activity 4
Now ask the learners what number the following will give you:

- 8 tens and 3 units (83)
- 6 tens and 1 unit (61)
- 9 tens and 3 units (93)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 2: Place value up to 99

Classwork

1. Copy and complete the following.
   a) 45= (40) + (5)
   b) 45= (4) tens + (5) units
   c) 5 units + 3 tens = (35)
   d) 3 tens + 0 units = (30)
   e) 0 tens + 8 units = (8)
   f) (2)tens + (4)units = 24
   g) (7)tens +(0) units = 70
   h) (0)tens + (8)units = 8
2. What is the value of the underlined digit?
   a) 7̲5 = (7) tens = (70)
   b) 3̲4 =(4) units =(4)
   c) 99̲= (9)units = (9)

Homework

1. Copy and complete the following.
   j) 38 = (30)+ (8)
   k) 64 = (6) tens + (4) units
   l) 3 units + 9 tens = (39)
   m) 4 tens + 0 units = (40)
   n) (1) tens + (7) units = 17
   o) (7) tens + (0) units = 70
2. What is the value of the underlined digit?
   a) 6̲4 =(6) tens = (60)
   b) 5̲ =(5) units = (5)

Lesson 3: Compare and order numbers up to 99

Teacher's notes

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.4 Describe, compare and order numbers

Lesson Vocabulary: Smaller than, greater than, more than, less than, equal, comparing, ordering, biggest, largest, smallest, least

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Compare whole numbers up to 99 using smaller than, greater than, more than, less than and is equal to.
- Order whole numbers from 0 to 99 from smallest to greatest, and greatest to smallest.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 1s from any number between 110 and 300.
- Count backwards in 1s from. any number between 300 and 110

Mental maths activity - 10 minutes

What is one more than...?

		Answer			Answer
1.	16	17	6.	33	34
2.	25	26	7.	78	79
3.	45	46	8.	91	92
4.	66	67	9.	89	90
5.	49	50	10.	100	101

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: Base ten blocks (remediation only), blank 100 grid

DBE workbook activities relevant to this lesson:

- Worksheet 17 (pgs 36 and 37)

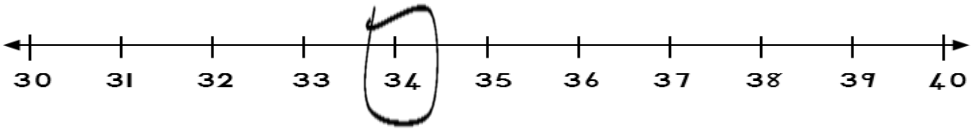
Concepts:

- Describe and compare whole numbers up to 99 using smaller than, greater than, more than, less than and is equal to.
- Describe and order whole numbers up 99 from smallest to greatest, and greatest to smallest.

Remediation: Give learners base ten blocks. Ask them to show you 39 and then 36. Ask them which group is smaller. (Possible answer: 36 blocks, the learner says, because this group has fewer ones/units that that group). Do the same with the numbers that follow by asking which numbers are bigger or which numbers are smaller (39 and 59; 34 and 43; 19 and 91)

Enrichment: See Enrichment Activity Cards

Activity 1
Draw a number line from 30, 31, 32, … 40 on the board.



Circle number **34**. Ask the learners to read the number. Ask them to give you a number that is:

- Smaller than **34** (Possible answer: 33) and then a number that is bigger than **34** (Possible answer: 35).
- Are those the only two answers? (No, 30, 31 and 32 are smaller than **34** and 36, 37, 38, 39 and 40 are greater than **34**)
- Cover the number line. Write 30 to 40 randomly on the board. Ask the learners to give you the numbers from the smallest to the greatest (Uncover the number line for learners to check their answers). Then do the same from the greatest to the smallest.

Activity 2
Write 42 and 24 on the board. Ask children to place these numbers on a blank grid.

			(24)						
	(42)								

Ask the learners how they decided on where to put the numbers (their explanations must describe the values of the tens digits and the units digits).

- Do the same with 71 and 17, 38 and 83, 45 and 54.

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 3: Compare and order numbers up to 99

Classwork

1. Which number is smaller? 92 or 29 (29)
   Why do you say so? (92 has 9 tens and 29 has 2 tens. 9 tens are more than 2 tens)
2. Which number is greater? 28 or 82 (82)
   Why do you say so? (28 has 2 tens and 82 has 8 tens. 2 tens are less than 8 tens)
3. Write these numbers from the smallest to the biggest: 34, 37, 35, 36, 33
   (33, 34, 35, 36, 37)
4. Which answer is smaller? 30 + 4 = (34) or 4 + 30 =(34)
   What do you notice? (They are both the same.)
5. Give two numbers that are more than 167 but less than 175. (various eg. 169, 174)
6. Copy this table into your maths book complete the table

	one more	one less	ten more	ten less
53	(54)	(52)	(63)	(43)
67	(68)	(66)	(77)	(57)
89	(90)	(88)	(99)	(79)
30	(31)	(29)	(40)	(20)

Homework

1. Fill in >, < or =
   a) 18 (<)81
   b) 45 (=)45
   c) 73 (>) 37
2. Write the numbers from the greatest to the smallest: 62, 26, 2, 20, (62, 26, 20,2)
3. Which number is smaller? 73 or 79 (73)
4. Which number is greater? 59 or 50 (59)
5. Which number is greater? 10 tens or 1 hundred (1 hundred)

Lesson 4: Numbers between 100 to 200

Teacher's notes

CAPS Topics: 1.2 Count forwards and backwards and 1.3 Number symbols and number names 1.5 Place value

Lesson Vocabulary: number word/names and number symbols

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Identify, recognise, read and write number symbols 0 to 200.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 1s from any number between 165 and 400.
- Count backwards in 1s from any number between 400 and 165.

Mental maths activity - 10 minutes

What is one less than...?

		Answer			Answer
1.	16	15	6.	33	32
2.	25	24	7.	78	77
3.	45	44	8.	91	90
4.	66	65	9.	89	88
5.	49	48	10.	69	68

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: Number board (101-200), number/flard cards

DBE workbook activities relevant to this lesson:

- Worksheet 33 (pgs 76 and 77)

Concepts:

- Recognise, identify, read and write number symbols from 100 to 200.
- .

Remediation:

- Prepare a handout for each child with the numbers 113, 114, 115...119 and 130,140, 150...190 written randomly on the page. Call these numbers out in no particular order and children point to the relevant number. Then point to the numbers on the board and get children to read the numbers. Ask them to write down what they have read.
- Learners who still need to use their flard cards could do so.

Enrichment: See Enrichment Activity Cards

Activity 1
Learners work in groups of 2 or 3. Place a 101-200 number board on each groups' table.

- Ask the learners to count from: 101 to 110, 116 to 124, 129 to 135, 146 to 156 and 189 to 199.
- Ask learners to put a green counter on number 144, then a blue counter on 104, and a red counter on 141. Take note if learners recognise the number symbols.
- Do the same with 171, 117, 170, 107 and 177 using a different colour for each number. (This helps with checking).

Activity 2

- Write the following number symbols and names randomly on the board. 161, 114, 175, 137, 149, one hundred and sixty one, one hundred and fourteen, one hundred and seventy five, one hundred and thirty seven and one hundred and forty nine.
- Ask the learners to match the number symbols with the number names.
- Ask each learner to show the number using their number/flard cards.

Note: Give those learners who struggle with 114 support because it is read/written as hundreds, units and tens and not like 126 where it is read/written as hundreds, tens and units.

Activity 3

- Write the following on the board. Ask the learners to build up or break down the numbers as required

200 + 30 + 4 = ...	(234)
200 + 40 + 9 = ...	(249)
.... + ... + ... + = 276	(200 + 70 + 6)
100 + ... + 3 = 173	(70)
40 + 3 + 200 = ...	(243)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 4: Numbers between 100 and 200

Classwork

1. Write the following as number symbols
   a) one hundred and eight (108)
   b) one hundred and eighteen (118)
   c) one hundred and eleven (111)
2. Write the following as number names.
   a) 126 (one hundred and twenty six)
   b) the number between 178 and 180 (one hundred and seventy nine)
   c) the number that is one more than 199 (two hundred)
   d) the number that is one less than 100 (ninety nine)
3. Complete
   a) 200+ 50+ 4 =(254)
   b) 200+ 60+ 5 =(265)
   c) 200+ 70+ 9 =(279)
   d) (200)+(80) +(1)= 281
   e) (200)+(0)+(2)= 202

Homework

1. Write the following as number names.
   a) 145 (one hundred and forty five)
   b) 106 (one hundred and six)
2. Write the following as number symbols
   a) One hundred and fifty four (154)
   b) One hundred and twelve (112)
   c) One hundred and one (101)

Lesson 5: Number 200 to 300

Teacher's notes

CAPS Topics: 1.2 Count forwards and backwards and 1.3 Number symbols and number names 1.5 Place value

Lesson Vocabulary: Number symbols, number names, tens, units, digit, backwards, forwards

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Recognise, identify, read and write number symbols up to 300

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 10s from any number between 100 and 200
  e.g. 120, 130, 140..... and 121, 131, 141...
- Count backwards in 10s from any number between 100 and 200.

Mental maths activity - 10 minutes

Write down the next numbers in order from the most to the least.

		Answer			Answer
1.	8,5,9	9,8,5	6.	134,136,135	136,135,134
2.	14,11,15	15,14,11	7.	156,158,157	158,157,156
3.	21, 19, 23	23,21,19	8.	134,143,123	143,134,123
4.	12,14,10	14,12,10	9.	179,199,189	199,189,179
5.	67, 50, 82	20,17,12	10.	129,130,131	131,130,129

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: Number cards and number name cards 200-300, number/flard cards

DBE workbook activities relevant to this lesson:

- Worksheet 41 (pgs 96 and 97)

Concepts:

- Recognise, identify, read and write number symbols from 200 to 300.
- Recognise, identify, read and write number names from 200 to 300.

Remediation: For learners who struggle to read three digit numbers use number/flard cards. Ask the learner to make a number e.g. *two hundred and sixty eight*. Expand the cards. Point to the hundred and ask learner to write two hundred, point to the tens and ask the learner to write it next to the hundreds, it will now say '*two hundred and sixty'*, point to the units and ask the learner to write it next to the tens, it will now say '*two hundred and sixty eight*'. Ask the learner to read the number name.
Use base ten blocks if necessary.

Enrichment: See Enrichment Activity Cards

Activity 1
Learners work in groups of 4.

- Place 8 to 10 number cards randomly on each groups' table. Ask the learners questions about their cards eg.
  Which group has number 245? (Be careful to say the number correctly and not say two forty five.)
  Ask the group/learners to lift up the card to show the class. Ask the rest of the class if the card is correct. How do they know? Can anybody write the number name on the board? Is this correct?

Activity 2
Ask learners to write the following numbers on their whiteboards/slates

- 219, and 290
- the number that is five more than 160 (165)
- just before 300 (299)
- ten less than 271 (261)

Activity 3
Ask learners to write down a number between 200 and 300 that have:

- 6 as the units digit (various options e.g. 206, 266, 296)
- no tens (various options e.g. 200, 201, 202)
- no units (various options e.g. 200, 210, 220)
- a ten that is an even number ((various options e.g. 220, 240)
- etc

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 5: Numbers 200 to 300

Classwork

1. Write the following as number names.
    a) 274 (two hundred and seventy four)
    b) 290 (two hundred and ninety)
    c) the number between 241 and 243 (two hundred and forty two)
    d) the number that is one more than 215 (two hundred and sixteen)
    e) the number that is one less than 297 (two hundred and ninety six)
2. Write the following as number symbols
    a) two hundred and eighteen (218)
    b) two hundred and eighty (280)
    c) two hundred and eight (208)
3. Complete the following
    a) 200 + 30 + 6 = (236)
    b) 200 +(70) + 4 = 274
    c) (200) + (10) + (1) = 211

Homework

1. Write the following as number names.
    a) 208 (two hundred and eight)
    b) 219 (two hundred and nineteen)
    c) 288 (two hundred and eighty eight)
2. Write the following as number symbols
    a) the number one less than two hundred and forty (239)
    b) the number ten less than two hundred and forty (230)
    c) the number ten more than two hundred and forty (250)
    d) the number twenty more than two hundred and forty (260)
    e) the number thirty more than two hundred and forty (270)

Week 2

Lesson 6: Number 300 to 400

Teacher's notes

CAPS Topics: 1.2 Count forwards and backwards and 1.3 Number symbols and number names 1.5 Place value

Lesson Vocabulary: Number symbols, number names and digit, odd, even

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Recognise, identify, read and write number symbols up to 300.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 10's from any number between 100 and 300
  e.g. 120, 130, 140..... and 121, 131, 141...,...
- Count backwards in 10's from any number between 100 and 300.

Mental maths activity - 10 minutes

Which number is bigger?

		Answer			Answer
1.	244 or 188	244	6.	278 or 287	287
2.	128 or 282	282	7.	398 or 389	398
3.	213 or 243	243	8.	337or 373	373
4.	363 or 336	363	9.	230 or 233	233
5.	320 or 230	320	10.	307, 377 or 337	377

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: Number cards and number name cards 200-300, number/flard cards

DBE workbook activities relevant to this lesson:

- Worksheet 43 (pgs 100 and 101)

Concepts:

- Recognise, identify, read and write number symbols from 300 to 400.
- Recognise, identify, read and write number names from 300 to 400.

Remediation: For learners support who struggled with recognising/reading 309, 311 and 319 use flard cards to make the numbers up first and then reading the numbers that they made up.

Enrichment: See Enrichment Activity Cards

Activity 1
Learners work in groups of 4.

- Place 8 to 10 number cards randomly on each group's table. Ask the learners:
- *Which group has number 367*? (remember to say the number correctly- three hundred and sixty seven)
- Ask the learner to lift up the card. Ask the rest of the class if the card is correct. How do they know? Can anybody write the number name on the board. Is this correct?

Activity 2
Write the following number symbols and names randomly on the board.

- 309, 311, 319, 343, 367, three hundred and nine, three hundred and eleven, three hundred and nineteen, three hundred and forty three and three hundred and sixty seven.
- Ask the learners to match the number symbols with the number names.
- Then ask the learners to show the number using their number/flard cards. Ask the learners to read the number and as they read the number point to the number name on the board.

Activity 3
Ask learners to write down a number between 300 and 400 that have:

- 6 as the units digit (various options e.g. 306 366, 396)
- no tens (various options e.g. 300, 301, 303)
- no units (various options e.g. 300, 310, 330)
- a unit that is an odd number (various options e.g. 331, 345, 377)
- etc

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 6: Numbers 300 to 400

Classwork

1. Write the following as number names.
    a) 395 (three hundred and ninety five)
    b) the number between 387 and 389 (three hundred and eighty eight)
    c) the number that is one more than 399 (four hundred)
    d) the number that is ten less than 399 (three hundred and eighty nine)
    e) the number that is twenty less than 310 (two hundred and ninety)
    f) the number that is four tens + 3 hundreds (three hundred and forty)

2. Write down a number between 300 and 400 that has
    a) 8 as the units digit (various eg. 398)
    b) no tens (various eg. 306)
    c) units that end with an even number (various eg. 368)
3. Fill in the blanks
    a) 300 + 50 + 3 = (353)
    b) 300 + (70) + (8) = 378
    c) (300) + (0) +(9) = 309

Homework

1. Write the following as number names.
    a) 308 (three hundred and eight)
    b) the number that has 6 tens+ 3 hundreds (three hundred and sixty)
2. Write the following as number symbols
    a) three hundred and twelve (312)
    b) the number between 369 and 371 (370)
    c) the number that is one less than 400 (399)
    d) the number that is ten less than 319 (309)
    e) the number that is twenty less than 319 (299)

Lesson 7: Number 400 to 500

Teacher's notes

CAPS Topics: 1.2 Count forwards and backwards and 1.3 Number symbols and number names 1.5 Place value

Lesson Vocabulary: Number symbols, number name, digit, smallest, biggest

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Recognise, identify, read and write number symbols from up to 400.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 10s from any number between 100 and 300
  e.g. 83, 93, 103, ...,
- Count backwards in 10s from any number between 300 and 100.

Mental maths activity - 10 minutes

What is ten more than...?

		Answer			Answer
1.	51	61	6.	37	47
2.	43	53	7.	71	81
3.	77	87	8.	40	50
4.	63	73	9.	23	33
5.	48	58	10.	54	64

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes.

Resources: Number cards and number name cards 400-500, number/flard cards

DBE workbook activities relevant to this lesson:

- Worksheet 45 (pgs 104 and 105)

Concepts:

- Recognise, identify, read and write number symbols from 400 to 500.
- Recognise, identify, read and write number names from 400 to 500.

Remediation: For learners who struggle with this concept, allow them to use their base tens blocks. Comparison with concrete apparatus will clearly show the differences in quantities for each digit.

Enrichment: See Enrichment Activity Cards

Activity 1
Learners work in groups of 4.
Place 8 to 10 cards on each group's table. Ask the learners:

- Which group has number 450? (Remember to say the number correctly and in full).
- Ask the learner to lift up the card. Ask the rest of the class to say the number.
- Write the number in words on the board, *four hundred and fifty*, say the words as you speak.

Activity 2
Write the following number symbols and names randomly on the board:

- 495, 415, 405, 425, 435, four hundred and ninety five, four hundred and fifteen, four hundred and five, four hundred and twenty five and four hundred and thirty five.
- Ask the learners to match the number symbols with the number names. Ask learners to show the number using their number/flard cards. Ask the learners to read the number and as they read the number point to the number name on the board.

- Is there a way to work out how we write the numbers from the smallest to the greatest? (First we look at the hundreds- all are the same so we next look at the tens. These are all different so we use the tens to help us to order the numbers.

- Write 495, 415, 425, 435, 416 on the board.
  Ask the learners if there is a way to work out how we write the numbers from the smallest to the greatest? (First we look at the hundreds- all are the same so we next look at the tens. These are all different except for 415 and 416 which both have the same number of tens.). Now how will we know which number is bigger from these two numbers?
  (We have to look at the units. 416 has 6 units which is more units than 415 which only has 5 units. This means that 416 is more than 415.
  Now sequence all the numbers, remembering that 416 are more than 415.

Activity 3 (Optional)
Ask learners to write down a number between 400 and 500 that have:

- 3 as the units digit (various options e.g. 403, 463, 493)
- Seven tens (various options e.g. 470, 471, 472)
- Five units (various options e.g. 405, 415, 445, ...)
- a ten that is an odd number ((various options e.g. 450, 470, 490)
- etc

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 7: Numbers 400 to 500

Classwork

1. Write the following as number names.
   a) 413 (four hundred and thirteen)
   b) the even numbers between 440 and 450 (four hundred and forty two, hundred and forty four, four hundred and forty six, four hundred and forty eight.)
   c) the number that is one hundred more than 400 (five hundred)
   d) the number that is one less than 500(four hundred and ninety nine)
   e) the number that is ten less than 500 (four hundred and ninety)
   f) the number that is eleven less than 500 (four hundred and eighty nine)
2. Write the following as number symbols
   a) four hundred and fifty (450)
   b) four hundred and nineteen (419)
   c) 3 hundreds, 5 tens and 6 units =(356)
   d) four units, 6 tens and 3 hundreds = (364)
3. Complete the following
   95= (0) hundreds +(9) tens + (5)units.

Homework

Complete the following

a) Write 498 as a number name. (four hundred and ninety eight)
b) Write four hundred and sixty one as a number symbol. (461)
c) 5 units, 0 tens and 3 hundreds = (305)
d) 35 = (0) hundreds, + (3) tens and (5)units.

Lesson 8: Addition on a number line

Teacher's notes

CAPS Topics:1.1 Count objects,1.2 Count forwards and backwards and 1.6 Problem-solving techniques

Lesson Vocabulary: Number line, add, jumps, next to, middle, left, right, tens, ones

Prior knowledge

In Grade 2 the learners should have learnt how to use the following techniques when performing calculations:

- Building up and breaking down numbers
- Number lines.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 10s from any number between 100 and 400
  e.g. 87, 97, 107, ...,and 368, 370, 372,... etc
- Count backwards in 10s from any number between 400 and 100 eg. 285, 275, 265...

Mental maths activity - 10 minutes

Calculate

		Answer			Answer
1.	51 + 10 =	61	6.	77 + 10 + 1 =	88
2.	51 + 10 + 1 =	62	7.	63+ 10 =	73
3.	43 + 10 =	53	8.	63 + 10 + 1 =	74
4.	43 + 10 + 1 =	54	9.	48+ 10 =	58
5.	77 + 10 =	87	10.	48 + 10 + 1 =	59

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes.

Resources: n/a

DBE workbook activities relevant to this lesson:

- Worksheet 45 (pgs 104 and 105)

Concepts:

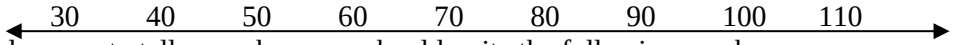
- Use a number line to add on in tens and ones

Remediation:

- For learners who struggle with this concept work with simpler numbers eg. 21 + 10 = …., 21 + 30 = …., 21 + 50 = ….,. Only after addition with multiples of 10 has been established introduce addition of numbers with tens and ones.

Enrichment: See Enrichment Activity Cards

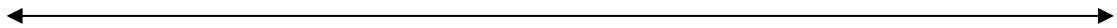
Activity 1
Draw a number line on the board. Point out the two arrowheads as you draw the number line.
Mark the number line in equidistant markings and write the numbers in multiples of tens from 30 to 90.



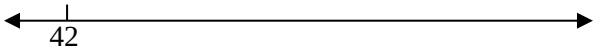
Ask learners to tell you where you should write the following numbers:

- 45 (exactly between the 40 and the 50)
- 59 (on the left of 60, right next to it)
- 67 (between 60 and 70 but more towards the right of where the 65 would go)
- Do that with 32, 86 and 42

Activity 2: Adding multiples of ten
Write the following number sentence on the board**: 42 + 30 = ...** Tell learners that they are going to use a number line to solve this problem. Draw an open number line (a number line with no numbers)

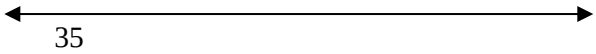


Ask learners what is the first number in the number sentence? (42).
Ask the learners where we should write 42 on the number line. (Since the number sentence is addition, and the numbers will get bigger when we add, it should be somewhere on the left hand side.) Find a place for 42, mark the place and write 42 .



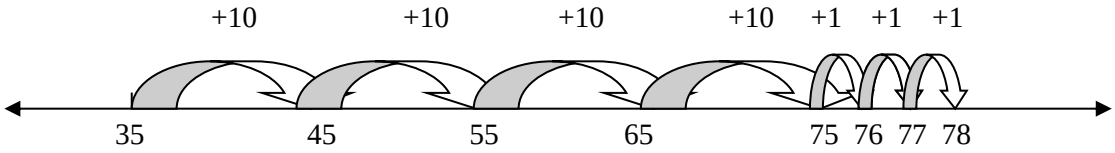
- Do the same with 35 + 40 = ... and 63 + 40 =.....

Activity 3: Adding multiples of ten and ones
Write the following number sentence on the board: **35 + 43 = ...** Draw an open number line on the board.
Ask learners what is the first number in the number sentence? (35).
Ask the learners where we should write 35 on the number line. (Since the number sentence is addition, and the numbers will get bigger when we add, it should be somewhere on the left hand side.) Find a place for 35, mark the place and write 35 .



Say *'so we need to add. How many jumps of 10 and ones will we take from 35.(*4 tens and 3 ones) As you take the jump say aloud and point to the numbers eg.

We needed to add 43 and we have added 4 tens, we still need to add the 3 ones. We take one jump at a time. The first jump gets us to 76, the second jump gets us to 77 and the third jump gets us to 78.



Lets complete our number sentence 35 + 43 = (78)
Do the same with

- 27 + 42 = ...(69)
- 56 + 24 =.....(70)
- 27 + 47 = ...(74)
- 56 + 25 =.....(81)

4. Classwork activity – 25 minutes (See next page)

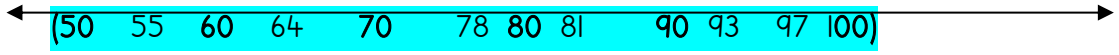
5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 8: Addition on a number line

Classwork

1. Draw a tens number line from 50 to 100 your maths books.
2. Write the following numbers in their correct places on the number line.
   a) 55
   b) 78
   c) 81
   d) 93
   e) 97
   f) 64



2. Draw and use number lines to calculate.
   a) 56 + 10 = (66)
   b) 56 + 30 = (86)
   c) 56 + 35 = (91)
   d) 47 + 24 = (71)
   e) 37 + 42 = (79)

Homework

Draw and use number lines to calculate

1. 78 + 10 = (88)
2. 78 + 20 = (98)
3. 78 + 22 = (100)
4. 36 + 12 = (48)
5. 49 + 36 = (85)

Lesson 9: Subtraction on a number line

Teacher's notes

CAPS Topics:1.1 Count objects,1.2 Count forwards and backwards and 1.6 Problem-solving techniques

Lesson Vocabulary: Number line, subtract, jumps, tens, ones

Prior knowledge

In Grade 2 the learners should have learnt how to use the following techniques when performing calculations:

- Building up and breaking down numbers
- Number lines.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 10's from any number between 100 and 400
  e.g. 230, 232, 234, ... and 231, 233, 235...,...
- Count backwards in 10's from any number between 100 and 400 eg. 184, 182, 180, ... and 389, 387, 385...,...

Mental maths activity - 10 minutes

What is eleven more than...?

		Answer			Answer
1.	51	62	6.	37	48
2.	43	54	7.	71	82
3.	77	88	8.	40	51
4.	63	74	9.	23	34
5.	48	59	10.	54	65

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes.

Resources: n/a

DBE workbook activities relevant to this lesson:

- Worksheet 20a &b (Page 42 and 45)

Concepts:

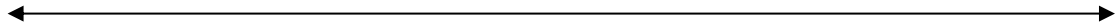
- Use a number line to subtract numbers

Remediation:

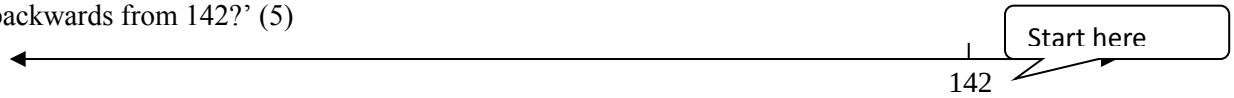
- For learners who struggle with this concept work with simpler numbers eg. 24 - 10 = …., 54 + 30 = …., 84 + 50 = …..,. Only after subtraction with multiples of 10 has been established introduce subtraction of numbers with tens and ones.

Enrichment: See Enrichment Activity Cards

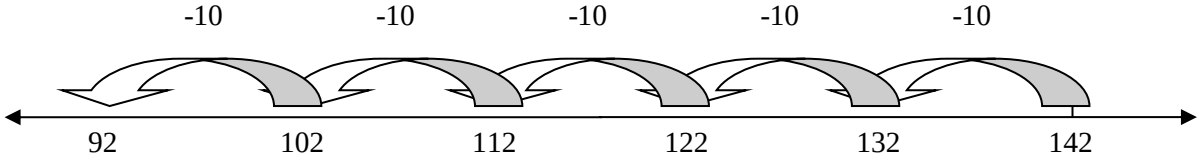
Activity 1: Subtraction with multiples of ten on a number line
Write the following number sentence on the board: **142 - 50 = ...** Tell learners that they are going to use a number line to solve this problem. Draw an open number line (a number line with no numbers).



Ask learners what is the first number in the number sentence? (142).
Ask the learners where we should write 142 on the number line. (Since the number sentence is subtraction and the numbers will get smaller when we subtract, the number 142 should be somewhere on the right hand side.) Find a place for 142, mark the place and write 142 .
Ask learners to read the rest of the number sentence. (-50 =....)
Say 'we need to subtract. This means that we are jumping backwards. How many jumps of 10 will we take backwards from 142?' (5)

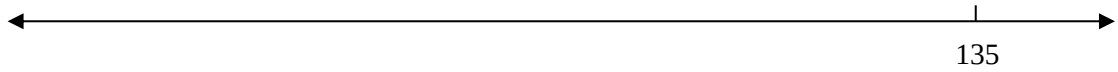


As you take the jump say aloud and point to the numbers write the numbers eg. *That's one jump of 10 backwards from 142, it gets us to .....132, then another jump of ten, and we landed on 122* (write down the next number in the appropriate spaces below the number line as you jump.) *and another which takes us to 122.* Continue until you have taken 5 jumps of ten. Also write the '-10' above the jumps to show that you are subtracting.

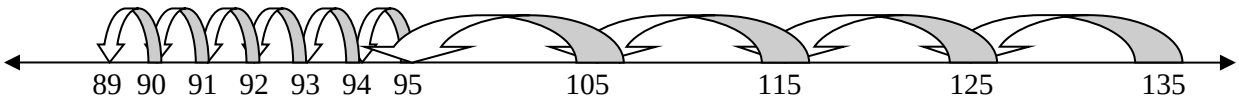


Write down the answer to 142-50 = ...(92)
Do the same with 135 + 40 = ... (95) and 165 + 60 =..... (105)

Activity 3
Write the following number sentence on the board: **135 - 46 = ...** Draw an open number line on the board. Ask learners what is the first number in the number sentence? (135).
Ask the learners where we should write 135 on the number line. (It should be somewhere on the right hand side since the number sentence is a subtraction one and the numbers will get smaller when we subtract.) Find a place for 135, mark the place and write 35 .



Ask learners to read the rest of the number sentence. (- 46 =....).
Say *'so we need to subtract. How many jumps of 10 and ones will we take from 135?* (4 tens and 6 ones).



Lets complete our number sentence 135 – 46 = (89)

- Do the same with with the following numbers:
  - 156 - 24 =.....(70)
  - 127 - 42 = ...(69)
  - 127 - 49 = ...(74)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

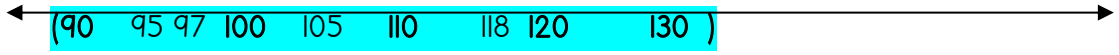
6. Reflection on lesson

Term 1 Lesson 9: Subtraction on a number line

Classwork

1. Draw a tens number line from 90 to 130 in your maths books.
2. Write the following numbers in their correct places on the number line.

a) 105
b) 95
c) 97
d) 131
e) 118



3. Draw and use number lines to calculate..

a) 56 – 10 = (46)
b) 56 – 30 = (26)
c) 56 – 35 = (21)
d) 147 – 30 = (117)
e) 147 – 38 = (109)

Homework

Draw and use number lines to calculate

1. 78 – 10 = (68)
2. 78 – 20 = (58)
3. 78 – 22 = (58)
4. 149 – 30= (119)
5. 149 – 36 = (113)

Lesson 10: Addition and subtraction

CAPS Topics:, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.12 Techniques (methods or strategies), 1.13 Addition and subtraction

Lesson Vocabulary: add, subtract, break down, build up, smallest, greatest.

Prior knowledge
In Grade 2 the learners should have learnt how to:
- Use appropriate symbols (+, −, =, ☐)
- Use the following techniques when performing calculations: Building up and breaking down numbers, number lines and drawings or concrete apparatus.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths
Counting - 5 minutes

- Count forwards in 10's from any number between 100 and 400
  e.g. 230, 232, 234, ... and 231, 233, 235...,...
- Count backwards in 10's from any number between 100 and 400 eg. 184, 182, 180, ... and 389, 387, 385...,...

Mental maths activity - 10 minutes
Write down the numbers in order from the smallest to the greatest.

		Answer			Answer
1.	103, 105, 104	10 3,10 4, 105	6.	167, 165, 166	165, 166, 167
2.	113, 112, 114	112, 113,114	7.	176, 178, 177	176, 177, 178
3.	131, 133, 132	131, 132, 133	8.	182, 181, 183	181, 182, 183
4.	145, 147, 146	145, 146, 147	9.	199, 197, 198	197, 198, 199
5.	155, 157, 156	155, 156, 157	10.	139, 138, 140	138, 139, 140

2. Homework/Corrections – 15 minutes
Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes
Resources: n/a

DBE workbook activities relevant to this lesson:
- Worksheet 46 (pgs 106-107)

Concepts:
- Add and subtract from 99 and use appropriate symbols (+. -, = ☐)
- Building up and breaking down number.

Remediation: Give the learners base ten blocks – tens and units. Tell them that they are going to add 63 and 19. Ask them if it is easier to add 19 and or 20.

Enrichment: See Enrichment Activity Cards

Activity 1: Addition using breaking down of numbers

Write the following on the board and do it step by step with your learners.

136 + 23 = Ask: "*How can we break these numbers into tens and units*?"

= (100 + 30 + 6) + (20+3) First let's add the tens and then add the units.

= (100) + (30 +20) + (6+3)

= (100) + 50 + 9

= 159

Do some more practice examples on the board with the learners.

- 123 + 10=
- 40 + 42=

Activity 2: Subtraction using breaking down of numbers

Once learners understand the addition strategy do the same with subtraction

168 - 20 = Break up each number into tens and units

= (100 + 60 + 8) - (20 + 0)

= (100) + (60 – 20) + (8-0) Now first let's subtract the tens and then subtract the units

= 100 + 40 + 8

= 148

Do more practice examples on the board with the learners

- 78- 10 =
- 155 – 140 =

Activity 3

Say '*Now let us look at another strategy/method*.' Write the following number sentence on the board:

58 + 19 = ☐ Ask the learners if it is easier to say 58 + 19 or 58 + 20 (58 + 20).

↓

58 + 20 = 78 Do all the steps as shown in example (1) above.

↓ But the number sentence said 58 + 19. I have added too much, what

58 + 19 = 77 should I do? We know that 19 is one less than 20 so I can say 78 minus 1 is 77. So my answer is 77.

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 10: Addition and Subtraction

Classwork

Calculate:

a) 56 + 30 = (86)
b) 85 + 70 = (155)
c) 187 – 50 = (137)
d) 147 + 40 = (187)
e) 85 + 72 = (157)
f) 147 – 44 =(103)
g) 147 + 56 = (203)
h) 167 – 35 = (132)

Homework

Calculate:

a) 43 +30 = (73)
b) 35 + 60 = (95)
c) 172 +50 = (222)
d) 172 – 50 = (122)
e) 56 – 30 = (26)

Week 3

Lesson 11: Money

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Metal mathematics, 1.11 Money

Lesson Vocabulary: Money, Rands, cents, change, afford

Prior knowledge
In Grade 2 the learners should have learnt how to:
- Recognise and identify the SA coins and bank notes up to R50.
- Solve money problems involving totals and change in cents up to 90c and Rands to R99.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths
Counting - 5 minutes
- Count forwards in 5s: 5, 10, 15 …50.
- Count backwards in 5s: 50, 45, 40 … 5.

Mental maths activity - 10 minutes
Calculate:

		Answer			Answer
1.	6 + ☐ = 20	14	6.	5 + ☐ = 20	15
2.	3 + ☐ =20	17	7.	9 + ☐ = 20	11
3.	2 + ☐ = 20	18	8.	4 + ☐ = 20	16
4.	1 + ☐ = 20	19	9.	0 + ☐ = 20	20
5.	7 + ☐ = 20	13	10.	8 + ☐ = 20	12

2. Homework/Corrections – 15 minutes
Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes
Resources: Goods/ products for shop e.g. empty containers (cereal boxes, cool drink cans, tins, washing powder boxes, plastic milk bottles, etc. pictures and cut outs from supermarket fliers). Range of play coins and notes to the value of R50,00 for each pair

DBE workbook activities relevant to this lesson:
- Worksheet 26 (pgs 60 and 61)
- Worksheet 8 (pgs 18 and 19)

Concepts:
- Recognise and identify the South African coins and bank notes.
- Solve money problems involving totals and change in rand or cents.

Remediation: Give learners coins and notes to recognize. Ask learners to show you combinations of Rands and cents that would make up the following amount.. R70 (Example: Only notes: R50, R10, R10. Notes and coins: R50, R10, R5, R2, R2, R1). R100 (Example: Only notes: R50, R20, R20 and R10. Notes and coins:

R50, R20, R20, R5 and R5). Practise calculating the total cost of the purchase using breaking down of numbers and doubling as strategies. Learners can make purchases to the value of R20,00

Enrichment: See Enrichment Activity Cards

Activity 1
Learners work in Pairs.

- Set up a shop in your classroom.
- Give each pair a range of play coins and notes to the value of R50,00.
- Prepare and mark products as follows: R4,00; R42,50; R5,00; R10; R30,50; R20; R1,00; R7,60; R9,00; R5 and R25,00 (Note that the products do not have to represent real life prices, but it should give the learners the chance to shop within the known number range).
- You will be the shopkeeper.
- Learners will come in groups to shop. Each group should buy products for R50. Each group must make sure that their products do not exceed R50,00.
- Each group should add up the cost of their items and calculate their change and report back.

Ask groups questions such as:

- *What was the total cost of all your products? Do you have enough money to pay for everything? If you do not have enough money, what can you do*?
- *If you can afford everything you want to buy, will you get any change from your R50,00? How much? How did you calculate that?*

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 11: Money

Classwork

1. Write 325c in Rands and cents. (R3,25)
2. What national symbol is on the 20c coin?(protea)
3. Write down all the different ways you can make R400,00 using only bank notes? (various eg. R200+R100+R50+R20 +R20+R10)
   How do you know whether you have all the solutions? (various eg. make a list)
4. If a school tracksuit costs R150,00 what will 2 tracksuits cost? (R300,00)
5. Toffees cost R1,10. Neo has one 50c coin and four 20c coins.
   a. Which coins should Neo use to pay for one toffee? (one 50c coin and three 20c coins)
   b. How much money will he have left? (10c)
6. These are the prices of sweets in the tuck shop:
   choc chuckle R2,70;
   gums R1,80;
   sour worms R1,40;
   peach treats R1,60;
   magic mints R2,20;
   toffee R1,20.
   Pedro's granny gave him R5. Which 3 sweets can he buy with his money?
   (various, eg. sour worms, peach treats and toffee)

Homework

1. Nora bought three books at R80,00 each. She paid with R300,00. How much change will she get? (R60,00)
2. One chewing gum costs 44c. Mavis has R8,00. She wants to buy 20 chewing gums for her party. How much more does she need to save? (80c)
3. Which animal is on the R20 note?(elephant)

Lesson 12: Fives (equivalent groups) and repeated addition

CAPS Topics: 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.8 Repeated addition leading to multiplication, 1.12 Techniques (methods or strategies), 1.14 Repeated addition leading to multiplication

Lesson Vocabulary: Repeated addition, groups and fives, multiply

Prior knowledge
In Grade 2 the learners should have learnt how to:
- do repeated addition and multiplication of 5 up to 50.
- Use a multiplication symbol

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes
- Count forwards in 5's from any number between 0 and 200 e.g. 160, 165, 170, …
- Count backwards in 5's from any number between 200 and 0.

Mental maths activity - 10 minutes
Which two numbers are after...?

		Answer			Answer
1.	121	122, 123	6.	188	189, 190
2.	130	131, 132	7.	197	198, 199
3.	138	139, 140	8.	262	263, 264
4.	159	160, 161	9.	279	280, 281
5.	270	271, 272	10.	390	391, 392

2. Homework/Corrections – 15 minutes
Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development – 30 minutes
Resources: Counters

DBE workbook activities relevant to this lesson:
- Worksheet 24 (pg 54)

Concepts:
- Solve repeated addition problems up to 50 using 5s.
- Multiply numbers 1 to 10 by 5 and use appropriate symbols. (x, –, ☐)

Remediation: Give learners 6 bundles with 5 sticks in each bundle (Use match sticks and rubber bands to make these). Ask learners what they see. (Possible answer: 6 bundles with sticks.) How many sticks are in each bundle? (5).We can say 6 bundles of 5 sticks or 6 groups of 5 sticks. (Get children to say this out aloud after you.) Let us add it all together (point while you add) 5+5+5+5+5+5=30. Point and say: We have 6 groups of 5. Can you see that we have 5, six times (point and count 6 times). We can write it as 6 x 5= ☐. 6 x5 = 30.
Note: Repeat these steps with 3 groups, 5 groups, 4 groups, etc. Only introduce the 'x' sign when the child understands the concept of multiplication as being repeated addition.

Enrichment: See Enrichment Activity Cards

Activity 1:
Give each learner 5 counters/stones, or they can imagine counters or stones, depending on their level of understanding. Build up a table on the board as you go along.

- Ask the first learner: How many counters do you have? (5)
- Ask the second learner the same question. (5)
- Ask '*How many counters do the both of you have altogether?* Explain: we can say 5 +5 = 10.Two learners have 10 counters altogether. We can also say 2 groups of 5 or we can say 2 x 5. Write it on the board.
- Keep on asking learners until you get to 10 learners. Here is an example of what it could look like on the board:

1 child	5	1 group of 5	1 x 5 = 5
2 children	5 + 5 = 10	2 groups of 5	2 x 5 = 10
3 children	5 + 5 + 5 = 15	3 groups of 5	3 x 5 = 15
4 children	5 + 5 + 5 + 5 = 20	4 groups of 5	4 x 5 = 20
5 children	5 + 5 + 5 + 5 + 5 = 25	5 groups of 5	5 x 5 = 25
6 children	5 + 5 + 5 + 5 + 5 + 5= 30	6 groups of 5	6 x 5 = 30
7 children	5 + 5 + 5 + 5 + 5 + 5 + 5 = 35	7 groups of 5	7 x 5 = 35
8 children	5 + 5 + 5 + 5 + 5 + 5 + 5 + 5= 40	8 groups of 5	8 x 5 = 40
9 children	5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5= 45	9 groups of 5	9 x 5 = 45
10 children	5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 + 5 = 50	10 groups of 5	10 x 5 = 50

Ask:
What does 4 *groups of 5* mean? (There are 4 groups and each group has 5).
What can we get in groups of five? (Fingers on one hand, school days in a week, five peaches in on my plate, R5,…)
What does *4 x 5 = 20* mean? (If we take 5 and add it four times we will get 20)
How can we write 4 x 5 = 20 as an addition number sentence? (5+5+5+5=20)
How can we write 5+5+5+5=20 as a multiplication number sentence? (4 x 5 = 20)

Activity 2
Write this word problem on the board.
I have 6 bags. There are 5 sweets in each bag. How many sweets do I have altogether?
Ask *How many groups*? (6). *How many in each group?* (5)
Ask the learners how they would write this

- as an addition number sentence (5 + 5 + 5 + 5 + 5 + 5= 30)
- as a multiplication number sentence (6 x 5 = 30)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 12: Fives and repeated addition

Classwork

1. Write a multiplication number sentence and calculate.
   a. 5 + 5 + 5 + 5 = 20 ⟶ (4) x (5) = 20
   b. 5 + 5 + 5 + 5 + 5 + 5 = ⟶ (6) x (5) = 30
   c. 3 groups of 5 ⟶ (3) x (5) = 15
2. Write the addition number sentence and calculate.
   4 x 5 =20 (5 + 5 + 5 + 5 = 20)
3. Calculate the following:
   a. 2 x 5 = (10) b. 10 x 5 = (50) c. 8 x 5 = (40)
4. I have 9 bags. There are 5 sweets in each bag. How many sweets do I have altogether? (45 sweets)
5. Show these calculations on a number line and complete the number sentences.
   5 + 5 + 5 + 5 = (20 or (4) x (5) = (20)

Homework

1. I have 7 bags. There are 5 sweets in each bag. How many sweets do I have altogether? (35 sweets)
2. Use a multiplication number sentence to calculate.
   5 + 5 + 5 + 5 + 5 = (5 x 5 =25)
3. Show these calculations on a number line and complete the number sentences.
   10 x 5 = 50 or (5 + 5 + 5 + 5 +5 + 5 + 5 + 5 + 5 + 5 = 50)

Lesson 13: Fives arrays

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.8 Repeated addition leading to multiplication, 1.12 Techniques (methods or strategies), 1.14 Repeated addition leading to multiplication

Lesson Vocabulary: Repeated addition, arrays, gri, fives

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Solve word problems in context and explains own solution to problems involving repeated addition and to multiplication with answers up to 50.
- In the previous lesson learners learnt about repeated addition, groups and multiplication by 5 up to 50.In this lesson they are going to use arrays to do repeated addition and multiplication.
- Note that in the previous lesson they said for example '4 groups of 5' and in this lesson they are going to use '4 rows of 5' (arrays). Both will help learners to solve word problems more easily.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 5's from any number between 0 and 400 e.g. 305, 310, 315, ...
- Count backwards in 5's from any number between 400 and 0 eg. 400, 395, 390, … .

Mental maths activity - 10 minutes

Which number is 10 less than...?

		Answer			Answer
1.	34	24	6.	54	44
2.	45	35	7.	99	89
3.	13	3	8.	95	85
4.	22	12	9.	70	60
5.	29	19	10.	50	40

2. Homework/Corrections – 15 minutes

Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development – 30 minutes

Resources: n/a

DBE workbook activities relevant to this lesson:

- Worksheet 24 (pg 55)

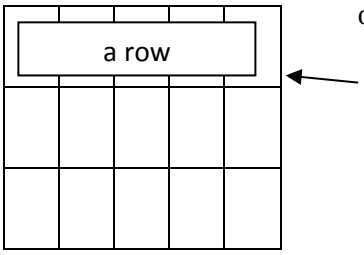
Concepts:

- Solve repeated addition problems up to 50 using fives
- Multiply numbers 1 to 10 by 5 and use appropriate symbols. (x, –, □)

Remediation: Give learners 15 counters. Ask them to take 5 counters and pack them in a row. How many counters do you have? Ask the learners to add another row below the first row.How many counters do you have now? Let us count: 5, 10…Carry on until there are 3 rows. Let us count: 5, 10, 15. How many rows do we have? (3) We can say we have 3 rows of 5. Let us write it as an addition number sentences: 5 + 5 + 5 = □. Repeat: we have 3 rows of 5. Let us write it as a multiplication number sentence: 3 (rows) x 5(counters) = □

Enrichment: See Enrichment Activity Cards

Activity 1:



Remind learners about how they worked out their five times tables on the previous day. Explain to learners that we can also use a grid to work out our tables.

- Draw a grid on the board.
- Show the learners what a row is and ask them to count the rows. (3)
- Ask them to count the squares in each row. (5)
- On the board write an addition number sentences: 5 + 5 + 5 = ☐
- We can say: 3 rows of 5.How can we write it as a multiplication number sentence? 3 x 5 = ☐
- What is the answer? (15). Learners check by counting: 5, 10, 15

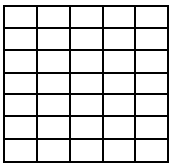
Do the same with 6 x 5

Activity 2

Write this problem on the board.

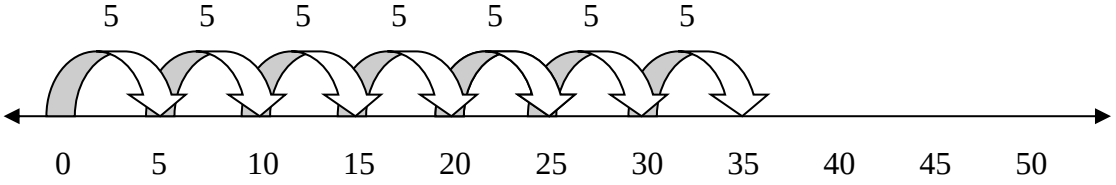
Mrs Pink plants 7 rows of potatoes. There are 5 plants in a row.

a. Draw a grid to show how many potato plants there are altogether.



b. Write two number sentences. (7 x 5 =35 and 5 + 5 + 5 + 5 +5 + 5 + 5 = 35.)

c. Draw a number line to show how many potato plants there are altogether.



Write the number sentence. (7 x 5 = 35 or 5 + 5 + 5 + 5 +5 + 5 + 5 = 35)

Count the jumps to show the multiplication and the addition.

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

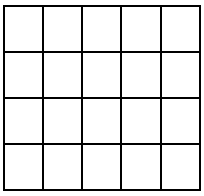
6. Reflection on lesson

Term 1 Lesson 13: Fives arrays

Classwork

1. Using the tables below, answer the questions for each one:
   a. Number of rows: (1. 4 rows, 2. 7 rows, 3. 5 rows)
   b. Squares per row: (1. 5 squares, 2. 5 squares, 3. 5 squares)
   c. Write a multiplication number sentence
   (1. 4 x 5 =20 2. 7 x 5 =37 3. 5 x 5 =25)

1.



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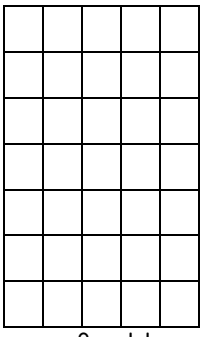

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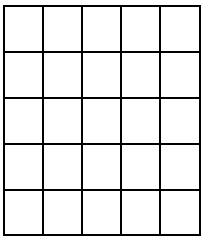
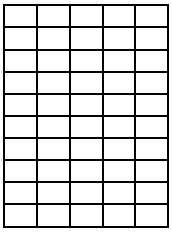


2. Mr Tshabalala plants 10 rows of cabbage plants. There are 5 plants in a row.
   a) Draw a grid to show how many cabbage plants there are altogether. Write the number sentence.



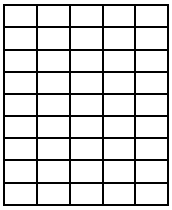
(10 x 5 =50 cabbages)

   b) Draw a number line to show how many cabbage plants there are altogether. Write the number sentence. (10 x 5 =50 cabbages)

Homework

My grandmother tiles her floor. She has 9 rows with 5 tiles in each row. How many tiles does she use?

a) Draw a grid to show how many tiles she uses altogether. Write the number sentence.



(9 x 5 =45 tiles)

b) Draw a number line to show how many tiles she uses altogether. Write the number sentence. (9 x 5 =45 tiles)

Lesson 14: Fives - sharing and grouping

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.9 Grouping and sharing leading to division, 1.12 Techniques: methods or strategies, 1.15 Division

Lesson Vocabulary: Sharing, dividing, groups, fives, remainders, remaining, left, left over

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Divide by sharing and grouping

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 5's from any number between 0 and 300
  e.g. 205, 210, 215, ...
- Count backwards in 5's from any number between 300 and 0 eg. 300, 295, 290, … .

Mental maths activity - 10 minutes
Calculate.

		Answer			Answer
1.	19 – 2 =	17	6.	19 – 11 =	8
2.	13 – 5 =	8	7.	20 – 10 =	10
3.	20 – 2 =	18	8.	13 – 2 =	11
4.	11 – 4 =	7	9.	14 – 5 =	9
5.	18 – 10 =	8	10.	20 – 11 =	9

2. Homework/Corrections – 15 minutes

Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development – 30 minutes

Resources: Counters / unifix blocks

DBE workbook activities relevant to this lesson:

-

Concepts:

- Solve and explain solutions to practical problems that involve equal sharing and grouping up to 50.
- Divide numbers up to 50 by 5and use appropriate symbols (÷, =, ☐)

Remediation: Give learners 17 counters. Ask them to share these equally into five groups. They do this by picking up five counters and then to distributing them equally among the five groups. Then pick up another handful of five counters and again distribute these as above. Continue until a full set of five counters cannot be picked up.
Ask: *How many counters in each group?* (3) *How many groups?* (5) *Are there any counters left?* (yes, 2). We can say 17 counters make 5 groups with 3 counters in each group and 2 counters will be left.
To write this as a number sentence let's look at how many counters you started with ? (17).Let us write 17 ÷ (*How many groups did you make?*) 5 = (*How many counters in each group?*) 3 and (*Are you left with any counters? How many?*) 2 counters are left. I can write it as 17 ÷ 5 = ☐→ 17 ÷ 5 = 3 remainder 2.

Enrichment: See Enrichment Activity Cards

Activity 1:Division without remainders
Learners should work in small groups.

- Ask learners to take 40 counters and ask them to share them amongst 5 friends
- How many groups do we have? (5)
- How many counters/stones does each friend get? (8)
- We can say *40 divided by 5 is 8*.
- Write this on the board. Explain to learners that the symbol for divided by is ' ÷' by writing it on the board. Discuss what it looks like. Children write it in the air. Say that*: Instead of using the words 'divide' or 'share', we will use the division symbol from now on.*
- Go back to the board and write *40 ÷ 5* (ask why 5) = 8 below *40 divided by 5 is 8*

Write this word problem on the board and guide the learners' thinking by asking questions.

You have 30 sweets. Share it amongst five children. How many sweets does each child get? Are there any remainders/left overs?

Ask What is the question asking you to do? (share the sweets).

- What are the numbers? (30 and 5).
- Will you multiply or divide? (divide) Which word helped you to decide this? (share)
- What symbol will you use? (÷)
- What will the number sentence be? (30 ÷ 5 = 6)
- Read the question again. 'How many sweets does each child get?' (6)
  Are there any sweets left? (There are no sweets left.)

Activity 2:Division with remainders
Write this number sentence on the board

You have 31 sweets. Share it amongst five children. How many sweets does each child get? Are there any remainders/left overs?

- Ask learners to take 31 counters.
- Ask them to share them amongst 5 friends.
- How many counters does each friend get?
- How many counters are left?
- We can say 31 divided by 5 is 6, and one is left over.
- We can write this as 31 ÷ 5 = 6 remainder 1.
- Read the question again. 'How many sweets does each child get?' (6)
  Are there any sweets left? (There is 1sweet remaining/left.)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 14: Fives – sharing and grouping

Classwork

1. Calculate the following:
    a. 10 ÷ 5 = (2)
    b. 35 ÷ 5 = (7)
    c. 25 ÷ 5 = (5)
    d. 50 ÷ 5 = (10)
    e. 45 ÷ 5 = (9)
    f. 46 ÷ 5 = (9 rem 1)
    g. 11 ÷ 5 = (2 rem 1)
    h. 34 ÷ 5 = (6 rem 4)
    i. 53 ÷ 5 = (10 rem 3)
    j. 42 ÷ 5 = (8 rem 2)
2. You have 38 sweets. Share them amongst 5 children.
    a. How many sweets does each child get? (7 sweets)
    b. How many sweets are left over?(3 sweets are left over)
3. Anna has R42. Chocolates cost R5 each.
    a. How many chocolates can she buy?(8 chocolates)
    b. How much will she have left over? (R2 will be left over.)

Homework

1. Your mother buys 47 sweets. She shares them amongst 5 children. Does she have any sweets left over? (Yes, 2 sweets are left over.)
2. Share 30 sweets among the following children and write down the number sentence.
    a. 3 children. 30 ÷ 3 = (10 sweets)
    b. 5 children. 30 ÷ 5 = (6 sweets)
    c. 2 children. 30 ÷ 2 = (15 sweets)
    d. 6 children. 30 ÷ 6 = (5 sweets)

Lesson 15: Twos (equivalent groups) and repeated addition

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.8 Repeated addition leading to multiplication, 1.12 Techniques (methods or strategies), 1.14 Repeated addition leading to multiplication

Lesson Vocabulary: Repeated addition, groups, twos, multiply

Prior knowledge

In Grade 2 the learners should have learnt how to:

- do repeated addition and multiplication of 2 up to 50.
- Use a multiplication symbol

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 5's from any number between 0 and 400
  e.g. 275, 280, 285, ...
- Count backwards in 5's from any number between 400 and 0 eg. 285, 280, 275, … .

Mental maths activity - 10 minutes

Which number is between these two numbers

		Answer			Answer
1.	106 and 108	107	6.	310 and 312	311
2.	102 and 104	103	7.	313 and 315	314
3.	215 and 217	216	8.	109 and 111	110
4.	318 and 320	319	9.	99 and 97	98
5.	219 and 217	218	10.	43 and 45	44

2. Homework/Corrections – 15 minutes

Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development – 30 minutes

Resources: Counters.

DBE workbook activities relevant to this lesson:

- Worksheet 25a (p56 - 57)

Concepts:

- Solve repeated addition problems up to 50 using 2s.
- Multiply numbers 1 to 10 by 2 and use appropriate symbols. (x, –, ☐)

Remediation: Give learners 7 bundles with 2 sticks in each bundle (Use match sticks and rubber bands to make these). Ask learners what they see. (Possible answer: 7 bundles with sticks.) How many sticks are in each bundle? (2).We can say 7 bundles of 2 sticks or 7 groups of 2 sticks. (Get children to say this out aloud after you.)

Let us add it all together (point while you add) 2 + 2 + 2 + 2 + 2 + 2 + 2 = 14. Point and say: Yes, we have 7 groups of 2. Can you see that we have 2 seven times? We can write it as 7 x 2= ☐. 7 x 2 = 14.

Note: Repeat these steps with 4 groups, 6 groups, 9 groups, etc. Only introduce the sign when the child understands the concept of multiplication as being repeated addition.

Enrichment: See Enrichment Activity Cards

Activity 1:
Give each learner 5 counters/stones, or they can imagine counters or stones, depending on their level of understanding. Build up a table on the board as you go along.

- Ask the first learner: how many counters do you have? (2)
- Ask the second learner the same question. (2)
- Ask : *How many counters do the both of you have altogether(*4)
- Explain: we can say 2 +2 = 4.Two learners have 4 counters altogether. We can also say 2 groups of 2 or we can say 2 x 2. Write it on the board.
- Keep on asking learners until you get to 10 learners. Here is an example of what it could look like on the board:

1 child	2	1 group of 2	1 x 2 = 2
2 children	2 + 2 = 4	2 groups of 2	2 x 2 = 4
3 children	2 + 2 + 2 = 6	3 groups of 2	3 x 2 = 6
4 children	2 + 2 + 2 + 2 = 8	4 groups of 2	4 x 2 = 8
5 children	2 + 2 + 2 + 2 + 2 = 10	5 groups of 2	5 x 2 = 10
6 children	2 + 2 + 2 + 2 + 2 + 2= 12	6 groups of 2	6 x 2 = 12
7 children	2 + 2 + 2 + 2 + 2 + 2 + 2 = 14	7 groups of 2	7 x 2 = 14
8 children	2 + 2 + 2 + 2 + 2 + 2 + 2 + 2= 16	8 groups of 2	8 x 2 = 16
9 children	2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2= 18	9 groups of 2	9 x 2 = 18
10 children	2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 + 2 = 20	10 groups of 2	10 x 2 = 20

Ask
What does 5 *groups of 2* mean? (there are 5 groups and each group has 2).
What can we get in groups of two? (eyes, ears, two peaches in on my plate, R2,…)
What does 5 *x 2 = 10* mean? (five times there are two... 2 and 2 and 2 and 2 and 2 and altogether that gives us 10)
How can we write 5 x 2 = 10 as an addition number sentence? (2+2+2+2 + 2 =10)
How can we write 2+2+2+2 + 2 =10 as a multiplication number sentence? (5 x 2 = 10)

Activity 2
Write this word problem on the board.
I have 6 bags. There are 2 sweets in each bag. How many sweets do I have altogether?
Ask *How many groups*? (6). *How many in each group?* (2)
Ask the learners how they would write this

- as an addition number sentence (2 + 2 + 2 + 2 + 2 + 2= 12)
- as a multiplication number sentence (6 x 2 = 12)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 15: Twos and repeated addition

Classwork

1. Write a multiplication number sentence and calculate.
   a. 2 + 2 + 2 + 2 =8 → (4) x (2) = 8
   b. 2 + 2 + 2 + 2 + 2 + 2 = (12) → (6) x (2) = 12
   c. 3 groups of 2 → (3) x (2) = 6
2. Write the addition number sentence and calculate 4 x 2 =8 (2 + 2 + 2 + 2 =8)
3. Calculate the following:
   a) 2 x 2 = (4) b) 5 x 2 = (10) c) 10 x 2 = (20)
4. I have 10 bags. There are 2 sweets in each bag. How many sweets do I have altogether?(10 x 2 = 20 sweets)
5. Draw and complete this table. Use the example to guide you.

	Draw in rows of 10 socks	How many pairs?	How many left over?
12	𓂻 𓂻 𓂻 𓂻 𓂻 𓂻	6	0
16	(𓂻 𓂻 𓂻 𓂻 𓂻 𓂻 𓂻 𓂻)	(8)	(0)
11		(5)	(1)
29		(14)	(1)
18		(9)	(0)
14		(7)	(0)
21		(10)	(1)

Homework

1. I have 9 bags. There are 2 sweets in each bag. How many sweets do I have altogether? (18 sweets)
2. Show this sum on a number line and complete.
   2 + 2 + 2 + 2 + 2 = (10) or (5) x (2) = (10)
3. Write how many socks and a number sentence each time:

Think in 2s	Number sentence
a) 1 pair = 2 socks	1 x 2 = 2
b) 3 pairs = (6) socks	3 x 2 = 6
c) 5 pairs = (10) socks	(5 x 2 = 10)
d) 7 pairs = (14) socks	(7 x 2 = 14)
e) 9 pairs = (18) socks	(9 x 2 = 18)
f) 11 pairs = (22) socks	(11 x 2 = 22)

Week 4

Lesson 16: Twos arrays

CAPS Topic: 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.8 Repeated addition leading to multiplication, 1.12 Techniques (methods or strategies), 1.14 Repeated addition leading to multiplication

Lesson Vocabulary: repeated addition, arrays/grids and twos

Prior knowledge
In Grade 2 the learners should have learnt how to:

- In the previous lesson learners learnt about repeated addition, groups and multiplication by 3 & 2 up to 30.In this lesson they are going to use arrays to do repeated addition and multiplication.
- Note that in the previous lesson they said for example '4 groups of 2' and in this lesson they are going to use '4 rows of 2' (arrays). Both will help learners to solve word problems more easily.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 2's from any number between 0 and 200 e.g. 46, 48, 50, …
- Count backwards in 2's from any number between 200 and 0 eg. 200, 198, 196, … .

Mental maths activity -10 minutes
What is eleven more than...?

		Answer			Answer
1.	100	111	6.	188	199
2.	123	134	7.	199	210
3.	130	141	8.	176	187
4.	153	164	9.	169	180
5.	167	178	10.	157	168

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: n/a

DBE workbook activities relevant to this lesson:

- Worksheet 25b (p58 to 59)

Concepts:

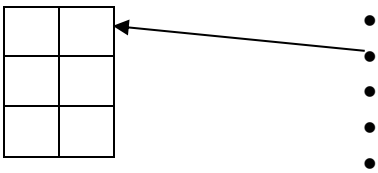
- Solve repeated addition problems up to 50 using threes
- Multiply numbers 1 to 10 by 2 and use appropriate symbols. (x, –, ☐)

Remediation: Give learners 8 counters. Ask them to take 2counters and pack them in a row. How many counters do you have? Ask the learners to add another row below the first row. How many counters do you have now? Let us count: 2, 4.Carry on until there are 4 rows. Let us count: 2, 4, 6, 8. How many rows do we

have? (4) We can say we have 4 rows of 2.Let us write it as an addition number sentences: 2 + 2 + 2 + 2= □.
Repeat: we have 4 rows of 2.Let us write it as a multiplication number sentence: 4 (rows) x 2(counters) = □

Enrichment: See Enrichment Activity Cards

Activity 1:



Remind learners about how they worked out their two times tables on the previous day. Remind learners that we can also use a grid to work out our tables.

- Draw a grid on the board.
- Show the learners what a row is and ask them to count the rows. (3)
- Ask them to count the squares in each row. (2)
- On the board write an addition number sentences: 2 + 2 + 2 = ☐
- We can say: 3 rows of 2.How can we write it as a multiplication number sentence? 3 x 2 = ☐
- What is the answer? (6). Learners check by counting: 2, 4, 6

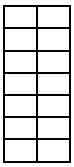
Do the same with 5 x 2

Activity 2

Write this problem on the board.

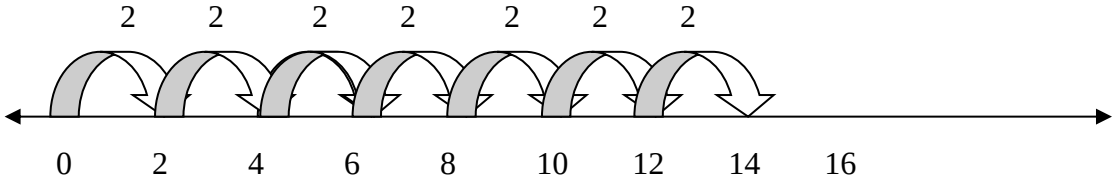
Mrs Pink plants 7 rows of potatoes. There are 2 plants in a row.

a. Draw a grid to show how many potato plants there are altogether.



b. Write two number sentences . (7 x 2 = 14 and 2 + 2 + 2 + 2 +2 + 2 + 2 = 14)

c. Draw a number line to show how many potato plants there are altogether.



Write the number sentence. (7 x 2 = 14 or 2 + 2 + 2 + 2 +2 + 2 + 2 = 14)

Count the jumps to show the multiplication and addition.

4. Classwork activity – 25 minutes (See next page)

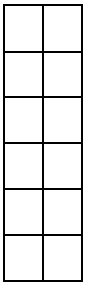
5. Homework activity – 5 minutes (See next page)

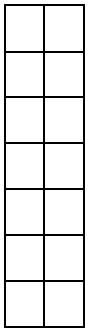
6. Reflection on lesson

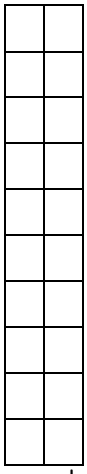
Term 1 Lesson 16: Twos arrays

Classwork

1. Count :
    a. Number of rows: (1. 6 rows, 2. 7 rows, 3. 10 rows)
    b. Squares per row: (1. 2 squares, 2. 2 squares, 3. 2 squares)
    c. Write a multiplication number sentence
    (1. 6 x 2 =12 2. 7 x 2 =14 3. 10 x 2 =20)

1 

2 

3 

2. There are 9 rows of trees. There are 2 trees in each row. How many trees are there altogether?
    a) Draw a grid to show how many trees there are altogether. (Drawing of grid with 9 rows and 2 squares in each row).
    Write the number sentence. (9 x 2 =18 trees)
    b) Draw a number line to show how many trees there are altogether. Write the number sentence. (9 x 2 =18 trees)

Homework

1. Write down all the odd numbers between 0 and 20. (1, 3, 5, 7, 9, 11, 13, 15, 17, 19)
2. In the egg box there are 6 rows with 2 eggs in each row. How many eggs are in the egg box?
    a) Draw a grid to show how many eggs there are altogether. (Drawing of grid with 6 rows and 2 squares in each row).
    Write the number sentence.(6 x 2 =12)
    b) Draw a number line to show how many eggs there are altogether. Write the number sentence.(6 x 2 =12)

Lesson 17: Twos - sharing and groups

CAPS Topic: 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.9 Grouping and sharing leading to division, 1.12 Techniques (methods or strategies), 1.15 Division

Lesson Vocabulary: Sharing, dividing, fives, equal, sharing, grouping, remainder

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Divide by sharing and grouping

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 2's from any number between 0 and 200
  e.g. 16, 18, 20,..., ...
- Count backwards in 2's from any number between 200 and 0 eg. 184, 182, 180, … .

Mental maths activity - 10 minutes
Calculate the following:

		Answer			Answer
1.	11 + 3 =	14	6.	11 + 8 =	19
2.	20 – 2 =	18	7.	18 – 8 =	10
3.	14 + 6 =	20	8.	12 + 7 =	19
4.	20 – 10 =	10	9.	12 – 7 =	5
5.	19 – 11 =	8	10.	5 + 11 =	16

2. Homework/Corrections – 15 minutes

Reflection/remediation based on previous day's work/homework.

Lesson content – concept development – 30 minutes

Resources: Counters/ unifix blocks

DBE workbook activities relevant to this lesson:

- Worksheet 30 (p 68 to p 71)

Concepts:

- Solve and explain solutions to practical problems that involve equal sharing and grouping up to 50.
- Divide numbers up to 50 by 2and use appropriate symbols (÷, =, ☐)

Remediation: Give learners 11 counters. Ask them to share these equally into two groups. They do this by picking up two counters and then to distributing them equally among the two groups. Then pick up another handful of five counters and again distribute these as above. Continue until a full set of two counters cannot be picked up. Ask: How many counters in each group? (2) How many groups? (5) Are there any counters left? (,1). We can say 11 counters will make 2 groups with 5 counters in each group and 1 counter will be left. To write this as a number sentence let's look at how many blocks you started with ? (11).Let us write 11 ÷ (How many groups did you make?) 5 = (How many counters in each group?) 5 and (Are you left with any counters? How many?) 1 counters are left. I can write it as 11 ÷ 2 = ☐→ 11 ÷ 2 = 5 remainder 1.

Enrichment: See Enrichment Activity Cards

Activity 1: Division without remainders

Write this word problem on the board and guide the learners' thinking by asking questions.

You have 14 sweets. Share it between 2 children. How many sweets does each child get? Are there any remainders/left overs?

Ask What is the question asking you to do? (share the sweets).

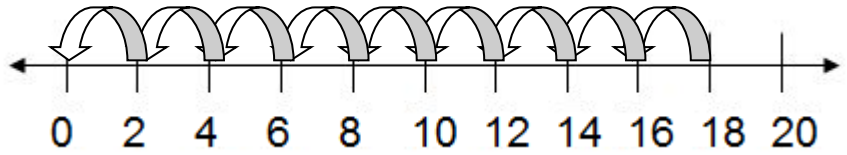
- What are the numbers? (14 and 2).
- Will you multiply or divide? (divide) Which word helped you to decide this? (share)
- What symbol will you use? (÷)
- What will the number sentence be? (14 ÷ 2 = 7)
- Read the question again. Are there any sweets left? (There are no sweets left.)

Activity 2: Division on a number line

18 ÷ 2 =.....

a. Show this calculation on a number line

18 ÷ 2 = (9 – nine jumps of 2 from 18 to 0)



b. Write a subtraction number sentence: (18 –2–2–2–2–2–2–2–2–2–2=0)

Activity 3: Division with remainders

- Ask learners to take 31 counters/stones.
- Ask them to share them amongst 2 friends.
- How many counters/stones does each friend get? (15)
- How many counters are left? (1)
- We can say 31 divided by 2 is 15, remainder 1.
  We can write it as 31 ÷ 2 = 15 remainder 1.

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

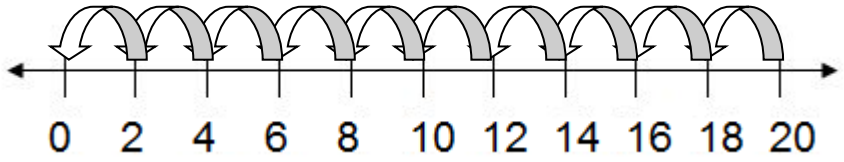
Term 1 Lesson 17: Twos – sharing and grouping

Classwork

1. Calculate the following:
   a) 10 ÷ 2 = (5)
   b) 36 ÷ 2 = (18)
   c) 26 ÷ 2 = (13)
   d) 0 ÷ 2 = (0)
   e) 46 ÷ 2 = (23)
   f) 47 ÷ 2 = (23 rem 1)
   g) 11 ÷ 2 = (5 rem 1)

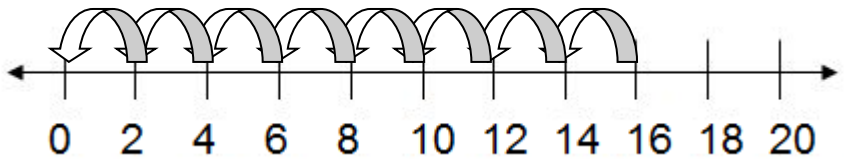
2. You have 49 sweets. Share them amongst 2 children. How many does each child get? (24 rem 1)

3. Look at the number line below and then write the number sentences:



   a) Write a subtraction number sentence: (20 –2–2–2–2–2–2–2–2–2–2=0)
   b) Write a division number sentence: (20 ÷ 2=10)

4. Look at the number line below and then write the number sentences:



   a) Write a subtraction number sentence. (16 –2–2–2–2–2–2–2–2=0)
   b) Write a division number sentence. (16÷ 2=8)

Homework

1. Your mother buys 31 oranges. She divides it into 2 bags. Does she have any oranges left? (Yes, she has 1 orange left.)
2. Calculate the following:
   a. 12 ÷ 2 = (6)
   b. 34 ÷ 2 = (17)
   c. 48 ÷ 2 = (24)
   d. 49 ÷ 2 = (24 rem 1)

Lesson 18: Threes (equivalent groups) and repeated addition

CAPS Topic: 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.8 Repeated addition leading to multiplication, 1.12 Techniques (methods or strategies), 1.14 Repeated addition leading to multiplication

Lesson Vocabulary: Repeated addition, group, threes, multiply

Prior knowledge
In Grade 2 the learners should have learnt how to:
- do repeated addition and multiplication of 3 up to 48.
- Use a multiplication symbol

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 3 minutes

- Count forwards and backwards in 3's from any number between 0 and 45
  e.g. 15, 18, 21,..., ...and 30, 27, 24,....
- Count backwards in 2's from any number between 300 and 0 eg. 184, 182, 180, … .

Mental maths activity - 10 minutes
Double these numbers

		Answer			Answer
1.	5	10	6.	30	60
2.	10	20	7.	4	8
3.	2	4	8.	40	80
4.	20	40	9.	5	10
3.	3	6	10.	50	100

2. Homework/corrections – 13 minutes

Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development – 30 minutes

Resources: Counters

DBE workbook activities relevant to this lesson:

- Worksheet 27 (p 62)

Concepts:

- Solve repeated addition problems up to 30 using 3s.
- Multiply numbers 1 to 10 by 3 and use appropriate symbols. (x, –, ☐)

Remediation: Give learners 6 bundles with 3 sticks in each bundle (Use match sticks and rubber bands to make these). Ask learners what they see. (Possible answer: 6 bundles with sticks.) How many sticks are in each bundle? (3).We can say 6 bundles of 3 sticks or 6 groups of 3 sticks. (Get children to say this out aloud after you.) Let us add it all together (point while you add) 3+3+3+3+3+3=18. Point and say: We have 6 groups of 3. Can you see that we have 3, six times (point and count the '3' six times) .
We can write it as 6 x 3= ☐. 6 x3 = 30. **Note:** Repeat these steps with 3 groups, 3 groups, 4 groups, etc. Only introduce the 'x' sign when the child understands the concept of multiplication as being repeated addition.

Enrichment: See Enrichment Activity Cards

Activity 1:
Give each learner 5 counters/stones, or they can imagine counters or stones, depending on their level of understanding. Build up a table on the board as you go along.

- Ask the first learner: how many counters do you have? (3)
- Ask the second learner the same question.
- Ask '*How many counters do the both of you have altogether?(6).* Explain:
  - We can say 3 +3 = 6.Two learners have 6 counters altogether.
  - We can also say 2 groups of 3 or we can say 2 x 3.
- Write it on the board.
- Keep on asking learners until you get to 10 learners. Here is an example of what it could look like on the board:

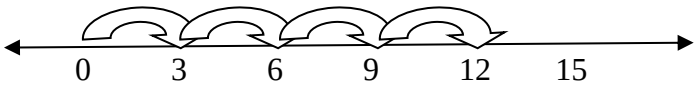
1 child	3	1 group of 3	1 x 3 = 3
2 children	3 + 3 = 6	2 groups of 3	2 x 3 = 6
3 children	3 + 3 + 3 = 9	3 groups of 3	3 x 3 = 9
4 children	3 + 3 + 3 + 3 = 12	4 groups of 3	4 x 3 = 12
5 children	3 + 3 + 3 + 3 + 3= 15	5 groups of 3	5 x 3 = 15
6 children	3 + 3 + 3 + 3 + 3 + 3= 18	6 groups of 3	6 x 3 = 18
7 children	3 + 3 + 3 + 3 + 3 + 3 + 3 = 21	7 groups of 3	7 x 3 = 21
8 children	3 + 3 + 3 + 3 + 3 + 3 + 3 + 3= 24	8 groups of 3	8 x 3 = 24
9 children	3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3= 27	9 groups of 3	9 x 3 = 27
10 children	3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 = 30	10 groups of 3	10 x 3 = 30

Ask
What does 4 *groups of 3* mean? (there are 4 groups and each group has 3).
What can we get in groups of three? (sides/corners in a triangle, wheels in a tricycle, peaches in on my plate, …)
What does *4 x 3 = 12* mean? (If we take 3 and add it four times we will get 12… 3+3+3+3=12)
How can we write 4 x 5 = 20 as an addition number sentence? (5+5+5+5=20)
How can we write 5+5+5+5=20 as a multiplication number sentence? (4 x 5 = 20)

Activity 2
Write this word problem on the board.
I have 6 bags. There are 3 sweets in each bag. How many sweets do I have altogether?
Ask '*How many groups*? (6). *How many in each group?* (3)
Ask the learners how they would write this

- as an addition number sentence (3 + 3 + 3 + 3 + 3 + 3= 15)
- as a multiplication number sentence (6 x 3 = 18)

Activity 3
Write this word problem on the board.
In the shed there are 4 tricycles. Draw a number line to show how many wheels there are altogether.



Write two number sentences.

(3 + 3 + 3 + 3 = 12) and (4 x 3 = 12)

4. Classwork activity (group/independent work) – 23 minutes

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

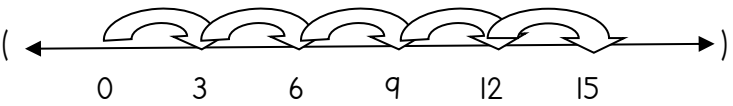
Term 1 Lesson 18: Threes and repeated addition

Classwork

1. Write a multiplication number sentence and calculate.
   a) 3 + 3 + 3 + 3 = 12 ⟶ (4) x (3)= 12
   b) 3 + 3 + 3 + 3 + 3 + 3 = (18) ⟶ (6) x (3) = 18
   c) 7 groups of 3 ⟶ (7) x (3) = 21
2. Write the addition number sentence and calculate 5 x 3 =15
   (3 + 3 + 3 + 3 + 3 = 15)
3. Calculate the following:
   a) 2 x 3 = (6)
   b) 10 x 3 = (30)
   c) 8 x 3 = (24)
4. Complete the following. Use the example to guide you.
   a) 4 triangles have 12 corners. 3 + 3 + 3 + 3 = 4 x 3 = 12
   b) 6 triangles have (18) corners.
      (3 + 3 + 3 + 3 +3 + 3 = 6 x 3 = 18)
   c) 9 triangles have (27) corners.
      (3 + 3 + 3 + 3 +3 + 3 + 3 + 3 +3 = 9 x 3 = 27)
   d) 10 triangles have (30) corners.
      (3 + 3 + 3 + 3 +3 + 3 + 3 + 3 +3 + 3 = 10 x 3 =30)
   e) 11 triangles have (33) corners.
      (3 + 3 + 3 + 3 +3 + 3 + 3 + 3 +3 + 3+ 3 = 11 x 3 =33)
   f) 12 triangles have (36) corners.
      (3 + 3 + 3 + 3 +3 + 3 + 3 + 3 +3 + 3 + 3+3 = 12 x 3 =36)

Homework

1. Use a multiplication number sentence to calculate 3 + 3 + 3 + 3 +3 = □
   (5 x 3 =15)
2. I have 9 bags. There are 3 sweets in each bag. How many sweets do I have altogether? (27 sweets)
3. In the shed there are five tricycles. Draw a number line to show how many wheels there are altogether.



Write the number sentence. (5 x 3 =15)
4. Practise counting in 3's at home.

Lesson 19: Threes arrays

CAPS Topics: 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.8 Repeated addition leading to multiplication, 1.12 Techniques (methods or strategies), 1.14 Repeated addition leading to multiplication

Lesson Vocabulary: repeated addition, arrays, grid, threes, multiply

Prior knowledge
In Grade 2 the learners should have learnt how to:

- do repeated addition, groups and multiplication by 3 up to 30.
- Note: In the previous lesson they said for example '4 groups of 3' and in this lesson they are going to use '4 rows of 3' (arrays). Both will help learners to solve word problems more easily.

Assessment:
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 2's from any number between 0 and 300 e.g. 16, 18, 20, …
- Count backwards in 2's from any number between 300 and 0 eg. 184, 182, 180, …

Mental maths activity - 10 minutes

	Double these numbers:	**Answer**		Halve these numbers	**Answer**
1.	10	20	6.	14	7
2.	100	200	7.	140	70
3.	20	40	8.	12	6
4.	40	80	9.	120	60
5.	30	60	10.	400	200

2. Homework – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: n/a

DBE workbook activities relevant to this lesson:

- Worksheet 27 (p 63)

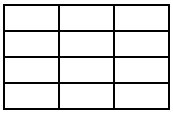
Concepts:

- Solve repeated addition problems up to 50 using threes
- Multiply numbers 1 to 10 by 3 and use appropriate symbols. (x, –, □)

Remediation: Give learners 12 counters. Ask them to take 3counters and pack them in a row. How many counters do you have? Ask the learners to add another row below the first row. How many counters do you have now? Let us count: 3, 6.Carry on until there are 4 rows. Let us count: 3, 6, 9, 12.How many rows do we have? (4) We can say we have 4 rows of 3.Let us write it as an addition number sentences: 3 + 3 + 3 + 3 = □. Repeat: we have 4 rows of 3.Let us write it as a multiplication number sentence: 4 (rows) x 3(counters) =□

Enrichment: See Enrichment Activity Cards

Activity 1:



Remind learners about how they worked out their three times tables on the previous day. Remind learners that we can also use a grid to work out our tables.

- Draw a grid on the board.
- Ask them to count the rows. (4)
- Ask them to count the squares in each row. (3)
- On the board write an addition number sentences: 3 + 3 + 3+3 = ☐
- We can say:4 rows of 3.How can we write it as a multiplication number sentence? 4 x 3 = ☐
- What is the answer? (12). Learners check by counting:
  3, 6, 9, 12,

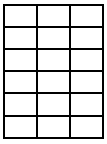
Do the same with 3 x 3 and 8 x 3

Activity 2

Write this problem on the board.

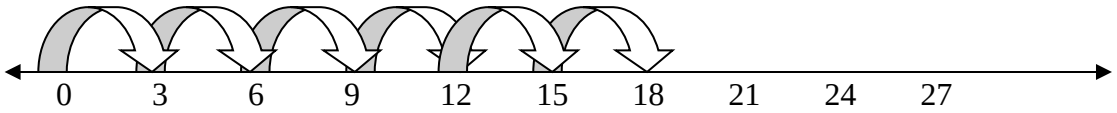
Mrs Pink plants 6 rows of potatoes. There are 3 plants in a row.

a. Draw a grid to show how many potato plants there are altogether.



b. Write two number sentences. (6 x 3 = 18 and 3 + 3 + 3 + 3 +3 + 3 = 18)

c. Draw a number line to show how many cabbage plants there are altogether.



d. Write two number sentences. (6 x 3 = 18) and (3 + 3 + 3 + 3 +3 + 3 = 18)

Count the jumps to show the multiplication and the division.

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection

Term 1 Lesson 19: Threes arrays

Classwork

1. Write a multiplication number sentence and calculate.
   a) 3 + 3 + 3 + 3 = 12 ⟶ (4) x (3) = 12
   b) 3 + 3 + 3 + 3 = □ ⟶ (4) x (3) = (12)
   c) 4 groups of 3 ⟶ (4) x (3) = 12
   2. Write the addition number sentence and calculate 6 x 3 = 15
   (3 + 3 + 3 + 3 + 3 + 3 = 18)
3. Calculate the following:
   a) 2 x 3 = (6)
   b) 10 x 3 = (30)
   c) 8 x 3 = (24)
4. I have 7 books. There are 3 stickers in each book. How many stickers do I have altogether?
   a) Draw a grid to show how many stickers there are altogether.
   (Drawing of grid with 7 rows and 3 squares in each row).
   Write the number sentence (7 x 3 =21)
   b) Draw a number line to show how many stickers there are altogether. Write the two number sentences. .
   (3 + 3 + 3 + 3 + 3 + 3 + 3 =21 and 7 x 3 =21)

Homework

1. Use a multiplication number sentence to calculate 3 + 3 + 3 + 3 +3 = □
   (5 x 3 = 15)
2. I have 8 bags. There are 3 sweets in each bag. How many sweets do I have altogether? (8 x 3 = 24 sweets)
3. Mum has 10 vases. Each vase has 3 roses.
   a) Draw a grid to show how many roses there are altogether.
   (Drawing of grid with 10 rows and 3 squares in each row).
   Write the number sentence. (10 x 3 =30)
   b) Draw a number line to show how many roses there are altogether.
   Write the two number sentences.
   (3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 + 3 =30 and 10 x 3 =30)

4. Practise counting in 3's at home.

Lesson 20: Threes - sharing and groups

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.9 Grouping and sharing leading to division, 1.12 Techniques (methods or strategies), 1.15 Division

Lesson Vocabulary: Sharing, dividing, threes, groups, remainders

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Do sharing and grouping, leading to division

Assessment:
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 3's from any number between 0 and 45
  e.g. 36, 39, 42, ...and 45, 42, 39, ,....
- Count backwards in 2's from any number between 400 and 0
  eg. 384, 382, 380, … . and 129, 127, 125, ...

Mental maths activity (10 minutes)
Which number is before and which number is after number,,,?

	Which number is before ...?	**Answer**		Which number is after ...?	**Answer**
1.	120	119	6.	182	183
2.	134	133	7.	199	200
3.	145	144	8.	100	101
4.	167	166	9.	179	180
5.	172	171	10.	188	189

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: Counters/ unifix blocks,

DBE workbook activities relevant to this lesson:

- Worksheet 30a (p68-69)

Concepts:

- Solve and explain solutions to practical problems that involve equal sharing and grouping up to 30.
- Divide numbers up to 30 by 3and use appropriate symbols (÷, =, □)

Remediation: Give learners 17 counters. Ask them to share these equally into three groups. They do this by picking up three counters and then to distributing them equally among the three groups. Then pick up another handful of three counters and again distribute these as above. Continue until a full set of three counters cannot be picked up.
Ask: How many counters in each group? (5) How many groups? (3) Are there any counters left? (yes, 2). We can say 17 counters will make 3 groups with 5 counters in each group and 2 counters will be left. To write this as a number sentence let's look at how many counters you started with ? (17).Let us write 17 ÷ (How many groups did you make?)3 = (How many counters in each group?) 5 and (A3e you left with any counters? How many?) 2 counters are left. I can write it as 17 ÷ 3 = □→ 17 ÷ 5 = 5 remainder 2.

Enrichment: See Enrichment Activity Cards

Activity 1: Division without remainders

- Ask learners to take 36 counters and ask them to share them amongst 3friends.
- How many groups do we have? (3)
- How many counters does each friend get? (12)
- We can say 36 divided by 3 is 12. We can write it as 36 ÷ 3 = □→ 36 ÷ 3 = 12

Write this word problem on the board and guide the learners' thinking by asking questions.
You have 30 sweets. Share it among 3 children. How many sweets does each child get? Are there any remainders/left overs?

Ask What is the question asking you to do? (share the sweets).

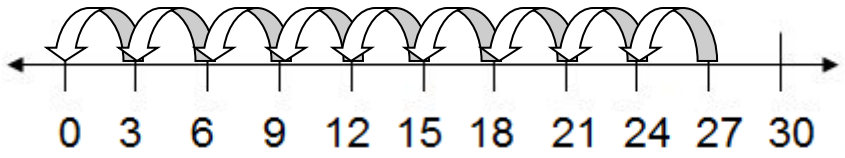
- What are the numbers? (30 and 3).
- Will you multiply or divide? (divide) Which word helped you to decide this? (share)
- What symbol will you use? (÷)
- What will the number sentence be? (30 ÷ 3 = 10)
- Read the question again. Are there any remainders/left overs? (There are no sweets left.)

Activity 2: Division with remainders

- Ask learners to take 31 counters.
- Ask them to share them amongst 3friends.
- How many counters/stones does each friend get?
- How many counters are left?
- We can say 31 divided by 3 is 10, remainder 1.
  We can write it as 31 ÷ 3 = 10 remainder 1.

Activity 3: Division on a number line

Look at the number line below and then write the number sentences:



a. Write a subtraction number sentence.
(27 –3 – 3 – 3 – 3 – 3 – 3 – 3 – 3 – 3 = 0)

b. Write a division number sentence.
(27 ÷ 3 = 9)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 20: Threes sharing and grouping

Classwork

1. Calculate the following:

a. 12 ÷ 3 = (4) b. 36 ÷ 3 = (12) c. 24 ÷ 3 = (8) d. 48 ÷ 3 = (16) e. 39 ÷ 3 = (13)

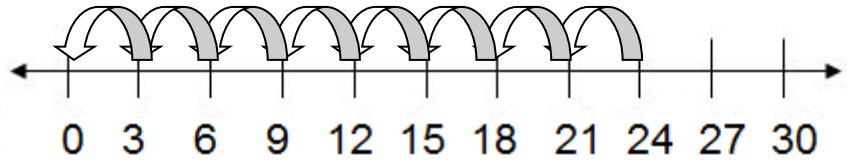
f. 47 ÷ 3 = ☐ g. 11 ÷ 3 =☐ h. 34 ÷ 5 = ☐ i. 49 ÷ 2 = ☐ j. 25 ÷ 3 = ☐

(15 rem 2) (3 rem 2) (6 rem 4) (24 rem 1) (8 rem 1)

2. You have 49 sweets. Share them amongst 3 children.
   a. How many sweets does each child get? (16)
   b. Are there any sweets left over?(Yes, there is 1 sweet left over.)
3. Complete the following. Use the example to guide you:
   a) 5 tricycles have 15 wheels. 15 – 3 – 3 – 3 – 3 – 3 = 0 ⟶ 15 ÷ 3 = 5
   b) (4) tricycles have 12 wheels.
   (12 – 3 – 3 – 3 – 3 = 0 ⟶ 12 ÷ 3 = 4)
   c) (3) tricycles have 9 wheels.
   (9 – 3 – 3 – 3 = 0 ⟶ 9 ÷ 3 = 3)
   d) (7) tricycles have 21 wheels.
   (21 – 3 – 3 – 3 – 3 – 3 – 3 – 3 = 0 ⟶ 21 ÷ 3 = 7)
   e) (8) tricycles have 24 wheels.
   (24 – 3 – 3 – 3 – 3 – 3 – 3 – 3 – 3 = 0 ⟶ 24 ÷ 3 = 8)
   f) (6) tricycles have 18 wheels.
   (18 – 3– 3 – 3 – 3 – 3 – 3 = 0 ⟶ 18 ÷ 3 = 6)

Homework

1. You have 44 marbles. You share them amongst 3 friends.
   a) How many marbles does each friend get?(14 marbles)
   b) Do you have any marbles left?(Yes, there are 2 marbles left.)
2. Dad has 15 wheels. How many tricycles can he make? (5 tricycles)
3. Look at the number line below and then write the number sentences:



   a) Write a subtraction number sentence.
   (24 – 3 – 3 – 3 – 3 – 3 – 3 – 3 – 3 = 0)

   b) Write a division number sentence. (24 ÷ 3 = 8)

Week 5

Lesson 21: Fours (equivalent groups) and repeated addition

CAPS Topics:1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.8 Repeated addition leading to multiplication, 1.12 Techniques (methods or strategies), 1.14 Repeated addition leading to multiplication

Lesson Vocabulary: Repeated addition, groups, fours, multiply

Prior knowledge
In Grade 2 the learners should have learnt how to:

- do repeated addition and multiplication of 4 up to 48.
- Use a multiplication symbol

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 4's from any number between 0 and 60
  e.g. 12, 16, 20, , ...and 48. 44, 40, ...
- Count backwards in 2's from any number between 400 and 0
  eg. 284, 282, 280, … . and 129, 127, 125, ...

Mental maths activity - 10 minutes
Calculate the following

		Answer			Answer
1.	17 + 3 = ...	20	6.	20 – 3 = ...	17
2.	27 + 3 = ...	30	7.	30 – 3 = ...	27
3.	37 + 3 = ...	40	8.	40 – 3 = ...	37
4.	47 + 3 = ...	50	9.	50 – 3 = ...	47
3.	57 + 3 = ...	60	10.	60 – 3 = ...	57

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: Counters

DBE workbook activities relevant to this lesson:

- Worksheet 28 (p 64)

Concepts:

- Solve repeated addition problems up to 40 using 4s.
- Multiply numbers 1 to 10 by 4 and use appropriate symbols. (x, –, □)

Remediation: Give learners 3 bundles with 4 sticks in each bundle (Use match sticks and rubber bands to make these). Ask learners what they see. (Possible answer: 3 bundles with sticks.) How many sticks are in each bundle? (4).We can say 3 bundles of 4 sticks or 3 groups of 4 sticks. (Get children to say this out aloud after you.) Let us add it all together (point while you add) 4+4+4=12. Point and say: We have 3 groups of 4. Can you see that we have 4, three times (point and count the '3' six times). We can write it as 3 x 4= □.3 x4

= 12. **Note:** Repeat these steps with 2 groups,7 groups, 10 groups, etc. Only use the 'x' sign when the child understands the concept of multiplication as being repeated addition.

Enrichment: See Enrichment Activity Cards

Activity 1:
Give each learner 5 counters/stones, or they can imagine counters or stones, depending on their level of understanding. Build up a table on the board as you go along.

- Ask the first learner: how many counters do you have? (4)
- Ask the second learner the same question. (4)
- Ask '*How many counters do the both of you have altogether* ? (8)
  Explain: we can say 4 +4 = 8.Two learners have 8 counters altogether.
  We can also say 2 groups of 4 or we can say 2 x 4. Write it on the board.
- Keep on asking learners until you get to 10 learners. Here is an example of what it could look like on the board:

1 child	4	1 group of 4	1 x 4 =4
2 children	4 + 4 = 8	2 groups of 4	2 x 4 = 8
3 children	4 + 4 + 4 = 12	3 groups of 4	3 x 4 = 12
4 children	4 + 4 + 4 + 4 = 16	4 groups of 4	4 x 4 = 16
3 children	4 + 4 + 4 + 4 + 4= 20	3 groups of 4	3 x 4 = 20
6 children	4 + 4 + 4 + 4 + 4 + 4= 24	6 groups of 4	6 x 4 = 24
7 children	4 + 4 + 4 + 4 + 4 + 4 + 4 = 28	7 groups of 4	7 x 4 = 28
8 children	4 + 4 + 4 + 4 + 4 + 4 + 4 + 4= 32	8 groups of 4	8 x 4 = 32
9 children	4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4= 36	9 groups of 4	9 x 4 = 36
10 children	4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 40	10 groups of 4	10 x 4 = 40

Ask

What do 5 *groups of 4* mean? (There are 5 groups and each group has 4).

What can we get in groups of four? (sides/corners in a square /rectangle, wheels of a car, peaches in on my plate, legs in a chair/dog…)

What does 5 *x 4 = 20* mean? (If we take 4 and add it five times we will get 20 / 4+4+4+4 +4=20)

How can we write 5 x 4 = 20 as an addition number sentence? (4+4+4+4+4=20)

How can we write 4+4+4+4 +4 =20 as a multiplication number sentence? (5 x 4 = 20)

Activity 2
Write this word problem on the board.
I have 6 bags. There are 4 sweets in each bag. How many sweets do I have altogether?
Ask *How many groups*? (6). *How many in each group?* (4)
Ask the learners how they would write this

- as an addition number sentence (4 + 4 + 4 + 4 + 4 + 4= 24)
- as a multiplication number sentence (6 x 4 = 24)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 21: Fours and repeated addition

Classwork

1. Write a multiplication number sentence and calculate.
   a) 4 +4 + 4 + 4 + 4 = 20 ⟶ (5) x (4) = 20
   b) 4 + 4 + 4 + 4 + 4 + 4 = □ ⟶ (6) x (4) = 24
   c) 7 groups of 4 ⟶ (7) x (4) = 28
2. Write the addition number sentence and calculate 6 x 4 = 24
   (4 + 4 + 4 + 4 + 4 + 4 = 24)
3. Calculate the following:

a. 2 x 4 = (8) b. 10 x 4 = (40) c. 8 x 4 = (32)

4. There are 8 tables. Each table has 4 legs. How many legs altogether?
   (8 x 4 = 32 legs)
5. Complete the following. Use the example to guide you:
   a) 3 dogs have 12 legs 4 + 4 + 4 = 4 x 3 = 12
   b) 4 dogs have (16) legs (4 + 4 + 4 + 4 = 4 x 4 = 16)
   c) 6 dogs have (24) legs. (4 + 4 + 4 + 4 + 4 + 4 = 6 x 4 = 24)
   d) 8 dogs have (32) legs. (4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 8 x 4 = 32)
   e) 12 dogs have (48) legs.
   (4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 = 12 x 4 = 48)

Homework

1. Use a multiplication number sentence calculate:
   4 + 4 + 4 + 4 +4 + 4 + 4 + 4 + 4 = □ (9 x 4 = 36)
2. I have 10 bags. There are 4 sweets in each bag. How many sweets do I have altogether? (10 x 4= 40 sweets)
3. Show the multiplication calculation on the number line and complete.
   a) 5 x 4 = (20) b. 7 x 4 = (28)
3. Practise counting in 4's at home.

Lesson 22: Fours arrays

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.8 Repeated addition leading to multiplication, 1.12 Techniques (methods or strategies, 1.14 Repeated addition leading to multiplication

Lesson Vocabulary: repeated addition, arrays/grids, fours, multiply

Prior knowledge
In Grade 2 the learners should have learnt how to:
- do repeated addition, groups and multiplication by 4 up to 40.
- Note that in the previous lesson they said for example '6 groups of 4' and in this lesson they are going to use '6 rows of 4' (arrays). Both will help learners to solve word problems more easily.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths
Counting - 5 minutes
- Count forwards in 4's from any number between 0 and 60 e.g. 12, 16, 20, …
- Count backwards in 2's from any number between 400 and 0 eg. 284, 282, 280, …

Mental maths activity -10 minutes
Put number in the box to make 100 Lesson 22

		Answer			Answer
1.	□ + 70 = 100	30	6.	90 + □ = 100	10
2.	□ + 50 = 100	50	7.	□ + 30 =100	70
3.	20 + □ = 100	80	8.	□ + 80 = 100	20
4.	40 + □ = 100	60	9.	□ + 20 + 100	80
5.	60 + □ = 100	40	10.	10 + □ = 100	90

2. Homework/Corrections – 15 minutes
Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes
Resources: n/a

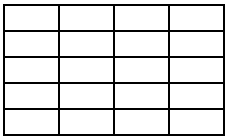
DBE workbook activities relevant to this lesson:
- Worksheet 28 (p 65)

Concepts:
- Solve repeated addition problems up to 50 using fours
- Multiply numbers 1 to 10 by 4 and use appropriate symbols. (x, –, ☐)

Remediation: Give learners 20 counters. Ask them to take 4 counters and pack them in a row. How many counters do you have? (4) Ask the learners to add another row below the first row. How many counters do you have now? Let us count: 4, 8.Carry on until there are 5 rows. Let us count: 4, 8, 12, 16, 20. How many rows do we have? (5.) We can say we have 5 rows of 4 .Let us write it as an addition number sentences: 4 + 4 + 4 + 4+4= ☐.Repeat: we have 5 rows of 4.Let us write it as a multiplication number sentence: 5 (rows) x 4 (counters) =☐

Enrichment: See Enrichment Activity Cards

Activity 1:

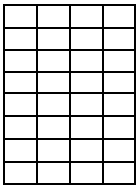


Remind learners that for homework they had to do repeated addition, groups and multiplication by 4.Today we are going to do more examples like those.
Ask learners in what other way they can work out our tables (grids)

- Draw a grid on the board.
- Ask the learners to show what a row is and ask them to count the rows. (5)
- Ask them to count the squares in each row. (4)
- On the board write an addition number sentences: 4+4+4+4+4 = ☐
- We can say: 5 rows of 4. How can we write it as a multiplication number sentence? 5 x 4 = ☐
- What is the answer? (20). Learners check by counting: 4, 8, 12, 16, 20

Do the same with 7 x 4 and 9 x 4

Activity 2
Write this problem on the board.
Mrs Black plants 8 rows of potatoes. There are 4 plants in a row.
a. Draw a grid to show how many potato plants there are altogether.



b. Write two number sentence. (8 x4 = 32 and 4 + 4 + 4 + 4 +4 + 4 +4 + 4 = 32)

c. Draw a number line to show how many potato plants there are altogether.
Write this question on the board:

At what time does school start each day? (8:00)
At what time does school end each day? (1:30)

d. Write two number sentences. (8 x 4 = 32) and (4 + 4 + 4 + 4 +4 + 4 +4 + 4 = 32)
Count the jumps to show the multiplication and the division.

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

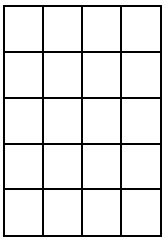
6. Reflection on lesson

Term 1 Lesson 22: Fours arrays

Classwork

1. Count:
   a. Number of rows: (1. 5 rows, 2. 6 rows, 3. 10 rows)
   b. Squares per row: (1. 4 squares, 2. 4 squares, 3. 4 squares)
   c. Write a multiplication number sentence
   (1. 5 x 4 =20 2. 6 x 4 =24 3. 10 x 4 =40)

1.



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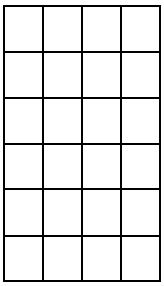

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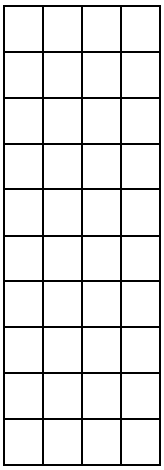


2. There are 8 rows of suckers in the sweet stand. There are 4 suckers in a row. How many suckers are there altogether? (8 x 4 = 32 suckers)
3. There are 9 rectangles. Each rectangle has 4 corners. .
   a) Draw a grid to show how many corners there are altogether.
   (Drawing of grid with 9 rows and 4 squares in each row).
   Write the number sentence. (9 x 4 = 36 corners)
   b) Draw a number line to show how many corners there are altogether.
   Write the two number sentences.
   (4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 +4 = 36 and 9 x 4 = 36)

Homework

1. There are 7 rows with 4 bottles of cold drinks in each row in the fridge. How many bottles of cold drink are in the fridge? (7 x 4 = 28 bottles)
   a) Draw a grid to show how many bottles of cold drinks there are altogether.
   (Drawing of grid with 7 rows and 4 squares in each row).
   Write the number sentence. (7 x 4 = 28 bottles)
   b) Draw a number line to show how many bottles of cold drinks there are altogether. Write the two number sentences.
   (4 + 4 + 4 + 4 + 4 + 4 + 4 = 28 and 7 x 4 = 28)
2. Arrange these numbers from biggest to smallest.
   44, 12, 32, 8, 16, 24, 20, 40. (44, 40, 32, 24, 20, 16, 12, 8)

Lesson 23: Fours - sharing and grouping

CAPS Topics: 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem-solving techniques, 1.9 Grouping and sharing leading to division, 1.12 Techniques (methods or strategies), 1.15 Division

Lesson Vocabulary: Sharing, dividing, fours, remainders

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Do sharing and grouping leading to division

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 3's from any number between 0 and 200

Mental maths activity - 10 minutes
Write down what is two after ...

		Answer			Answer
1.	99	101	6.	34	36
2.	156	158	7.	89	91
3.	175	177	8.	165	167
4.	189	191	9.	179	181
5.	190	192	10.	143	145

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: Counters, unifix blocks

DBE workbook activities relevant to this lesson:

- Worksheet 30b (p70 to p71)

Concepts:

- Solve and explain solutions to practical problems that involve equal sharing and grouping up to 50.
- Divide numbers up to 50 by 4 and use appropriate symbols (÷, =, ☐)

Remediation: Give learners 23 counters. Ask them to share these equally into four groups. They do this by picking up four counters and then to distributing them equally among the four groups. Then pick up another handful of four counters and again distribute these as above. Continue until a full set of four counters cannot be picked up. Ask: How many counters in each group? (5) How many groups? (4) Are there any counters left? (yes, 3). We can say 23 counters will make 5 groups with 4 counters in each group and 3 counters will be left. To write this as a number sentence let's look at how many counters you started with ? (23).Let us write 23 ÷ (How many groups did you make?) 5 = (How many counters in each group?)4 and (Are you left with any counters? How many?) 3 counters are left. I can write it as 23 ÷ 4 = ☐→ 23÷35 = 5 remainder 3.

Enrichment: See Enrichment Activity Cards

Activity 1: Division without remainders

In the previous two lessons you have learnt about multiplying by 4 up to 40. In this lesson the focus will be on division.
In groups of four give learners 32 counters/stones.

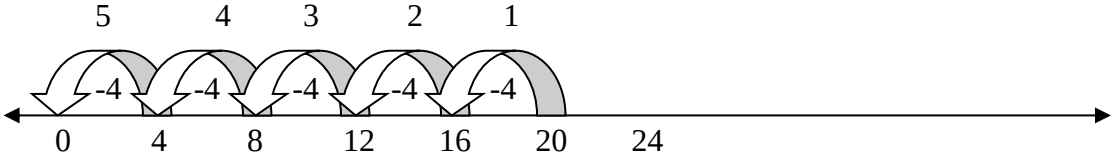
Write this word problem on the board and guide the learners' thinking by asking questions.
You have 32 sweets. Share it among 4 children. How many sweets does each child get? Are there any remainders/left overs?

Ask What is the question asking you to do? (share the sweets).

- What are the numbers? 32 and 4).
- Will you multiply or divide? (divide) Which word helped you to decide this? (share)
- What symbol will you use? (÷)
- What will the number sentence be? (32 ÷ 4 = 8)
- Read the question again. Are there any sweets left? (There are no sweets left.)

Activity 2: Division with remainders
Ask learners to take 35 counters/ unifix cubes and to share them amongst 4friends.
How many counters/unifix cubes does each friend get? (8) How many counters are left? (3)
We can say 35 divided by 4 is 8, remainder 3.We can write it as 35 ÷ 4 = 8 remainder 3.

Activity 3: Division on a number line
Write this sentence on the board. **....cars have 20 wheels.**
a. Draw a number line to show how many cars have 20 wheels?
Ask *What do you know?* (One car has 4 wheels. There are 20 wheels.)
How can we work out how many cars there are? (We need to work out how many fours there are in 20.)
Let us use a number line to work this out.



a. Use a subtraction number sentence to work out how many cars have 20 wheels?
20 – 4 – 4 – 4 – 4 – 4 = 0 (5 cars)
b. Use a division number sentence to work out how many cars have 20 wheels altogether?
20 ÷ 4 = 5 (5 cars)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 23: Fours – sharing and grouping

Classwork

1. Calculate the following:

a. 12 ÷4 = (3) b. 36 ÷4 = (9) c. 24 ÷4 = (6) d. 48 ÷4 = (12) e. 40 ÷4 = (10)

f. 47 ÷4 = ☐ g. 11 ÷4 = ☐ h. 34 ÷4 = ☐ i. 50 ÷4 = ☐ j. 25 ÷4 = ☐

(11 rem 3) (2 rem 3) (8 rem 2) (12 rem 2) (6 rem 1)

2. You have 49 balls. Share them amongst 4 children.
   a. How many balls does each child get? (12)
   b. Do you have any balls left or not? (Yes, there is 1 ball left over.)
3. Complete the following. Use the example to guide you.

a) 5 cars have 20 wheels. 20 – 4 – 4 – 4 – 4 – 4 = 0 ⟶ 20 ÷ 4 = 5

b) (3) cars have 12 wheels.
(12 – 4 – 4 – 4 = 0 ⟶ 12 ÷ 4 = 3)

c) (6) cars have 24 wheels
(24 – 4 – 4 – 4 – 4 – 4– 4 = 0 ⟶ 24 ÷ 4 = 6)

d) (8) cars have 32 wheels.
(32 – 4 – 4 – 4 – 4 – 4– 4 – 4 – 4 = 0 ⟶ 32 ÷ 4 = 8)

e) (10) cars have 40 wheels
(40 – 4 – 4 – 4 – 4 – 4– 4 – 4 – 4 – 4 – 4 = 0 ⟶ 40 ÷ 4 = 10)

f) (7) cars have 28 wheels
(28 – 4 – 4 – 4 – 4 – 4– 4 – 4 = 0 ⟶ 28 ÷ 4 = 7)

Homework

1. The teacher has 45 pencils. She shares them amongst 4 friends. Does she have any pencils left? (Yes, she has 1 pencil left.)
2. Use number lines to calculate the following.
   a) 24 ÷ 3 = (8)
   b) 24 ÷ 4 = (6)
   c) 24 ÷ 2 = (12)
3. A loaf of bread has 20 slices. If I eat 4 slices of bread a day, how long will the loaf of bread last? Write the subtraction number sentence to show your working.
   (20 – 4 – 4 – 4 – 4 – 4= 0)

Lesson 24: Data-Tally tables

CAPS Topics:5.5 Represent data

Lesson Vocabulary: tally, tally table, frequency, column, table, record

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Make individual pictographs with one-to-one correspondence from data provided in either picture form or tables.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards and backwards in 5's from any number between 0 and 400

Mental maths activity - 10 minutes

	Calculate	Answer		Calculate	Answer
1.	1 + 15 = ...	16	6.	3 + 35 = ...	38
2.	2 + 25 = ...	27	7.	1 + 42 = ...	43
3.	3 + 19 = ...	22	8.	2 + 55 = ...	57
4.	4 + 45 = ...	49	9.	4 + 65 = ...	69
5.	5 + 78 = ...	83	10.	4 + 78 = ...	82

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: n/a

DBE workbook activities relevant to this lesson:

- Worksheet 16 (p34 to p35)

Concepts:

- Group to at least 200 objects to estimate and count reliably.
- Represent data in a table.
- Represent data in a graph

Remediation: For learners who struggle with counting tallies, let them work with counting sticks in one colour to make groups of 5 and lay them flat on the carpet/ table. Replace every fifth counting stick with a stick of a different colour eg. red and place this stick diagonally over the group of 4 sticks (a group of 5 altogether). Then show learners how to count in fives by only counting the red counting sticks.
Add one more stick at a time and get the learners to count on in ones from the multiple of 5 eg. for 28 counting sticks count 5, 10, 15, 20, 25, 26, 27, 28. 𝍸 𝍸 𝍸 𝍸 𝍸 |||

Learners need understand how much quicker and more convenient it is to count in fives and ones than to count in ones only.

Enrichment: See Enrichment Activity Cards

Activity 1: Creating tally tables and frequency tables

This is a whole class activity
Ask the learners to think about their favourite colour.
Create a table on the board and make a tally mark as each child names his/her favourite colour.

The example below illustrates the steps for teaching tally tables. Your class's responses will differ based on their favourite colours.

Favourite colour	**Tally**	
Red	///	
Green	/	

As you mark the children's choices on the table, show them how the 5th person's choice is shown by a line over the 4 loose tally marks.

Favourite colour	**Tally**	
Red	𝍸	
Green	𝍸/	

Discuss why this approach is useful for counting quickly.
After you have shown every child's favourite colour with a tally, let them help you to count the tallies Show learners how we count in fives and ones.
This information is recorded in number symbols in the *frequency* column. Explain that 'frequency, means how often something happens eg. When we look at the table we can see that 10 people chose red as their favourite colour.

Favourite colour	**Tally**	**Frequency**
Red	𝍸	10
Green	𝍸/	11
Yellow	////	4
Blue	𝍸	5

Activity 2: Data analysis
Ask questions based on the tally table eg.

- Which colour is the most popular? (Green)
- Which colour is the least popular? (Yellow)
- How many children are there in our class? (30)

4. Classwork (Group/independent work) – 25 minutes

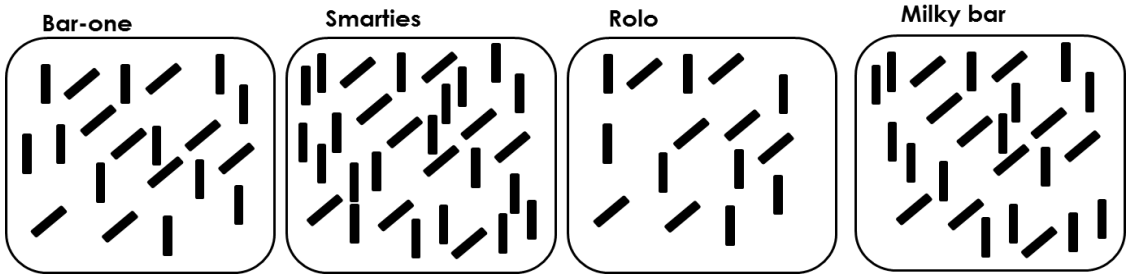
5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 24: Data - Tally Tables

Classwork

1. You have collected the following information on some people's favourite chocolates.



a) Complete the tally table.

b) Check if the tallies are correct and then fill in the frequency.

Favourite chocolate	Tally	Frequency
Bar–one	(𝍸 𝍸 𝍸 𝍸)	(20)
Smarties	(𝍸 𝍸 𝍸 𝍸 𝍸 𝍸)	(30)
Rolo	(𝍸 𝍸 𝍸)	(15)
Milky Bar	(𝍸 𝍸 𝍸 𝍸 𝍸)	(25)

c) Which chocolate is the most popular? (Smarties)

d) Which chocolate is the least popular? (Rolo)

Homework

(Learner answers will vary.)

1. On a piece of paper make a list of all the people who live in your home.
2. Ask each person to tell you how many slices of bread they ate today and record this against their names. Call this "Day 1".
3. Paste this list into your homework book.

Lesson 25: Data-Bar graph and tables

CAPS Topics:5.5 Represent data

Lesson Vocabulary: Bar graph, tally, tally table and frequency, horizontal, vertical, label

Prior knowledge
In Grade 2 the learners should have learnt how to:
- Make tally tables to show data collected. .

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes
- Count forwards in 3's from any number between 0 and 200
- Count forwards in 5's from any number between 0 and 300

Mental maths activity - 10 minutes
What is eleven more than...?

		Answer			Answer
1.	54	65	6.	57	68
2.	47	58	7.	75	86
3.	27	38	8.	2	13
4.	44	55	9.	88	99
5.	28	38	10.	14	25

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: n/a

DBE workbook activities relevant to this lesson:
- Worksheet 22 (pgs 50 and 51)

Concepts:
- Group to at least 200 objects to estimate and count reliably.
- Represent data in a table with tallies and frequencies.
- Represent data in a graph

Remediation: Let learners draw tallies. As they draw it let them count. Give learners a bar graph template to complete.

Enrichment: See Enrichment Activity Cards

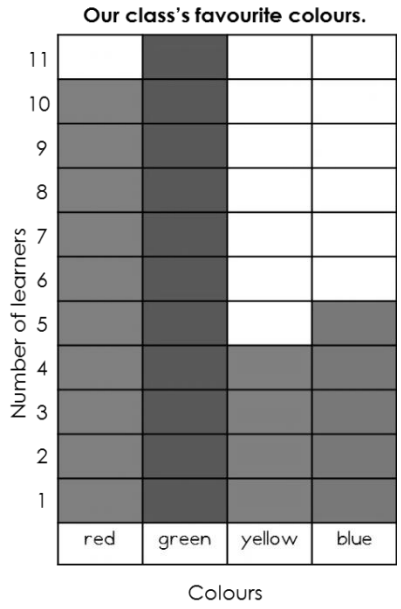
Activity 1

The example below illustrates the steps for teaching tally tables. Your class's responses will differ based on their favourite colours.

This is a whole class activity
Draw the tally table (below) onto the chalk board.
Ask learners what their favourite colours are.
Represent these on the tally table.
Remind the learners how tallies are counted.
Fill in the *frequency* on the table. Explain that the *frequency* is the total of tallies written in a number.

Favourite fruit	**Tally**	**Frequency**
Red	𝍸	10
Green	𝍸 |	11
Yellow	𝍸	4
Blue	𝍸	5

Using the information in the tally table draw an appropriate bar graph interactively with the children.
Show the learners how to draw a bar graph using the table. Show learners how to label a bar graph.



Point to the:

- Name of the graph and tell learners that this one tells us the class's favourite colours.
- Point to the 'horizontal labels below the graph' and ask the learners what these labels are telling us? (Colours)
- Point to the 'vertical label' and ask the learners what this label is telling us? (Number of Learners)

Ask the learners questions such as:

- What is the most popular colour?(Green)
- What is the least popular colour? (Yellow)
- How many more people like red than yellow/blue?

4. Classwork activity – 25 minutes (See next page)

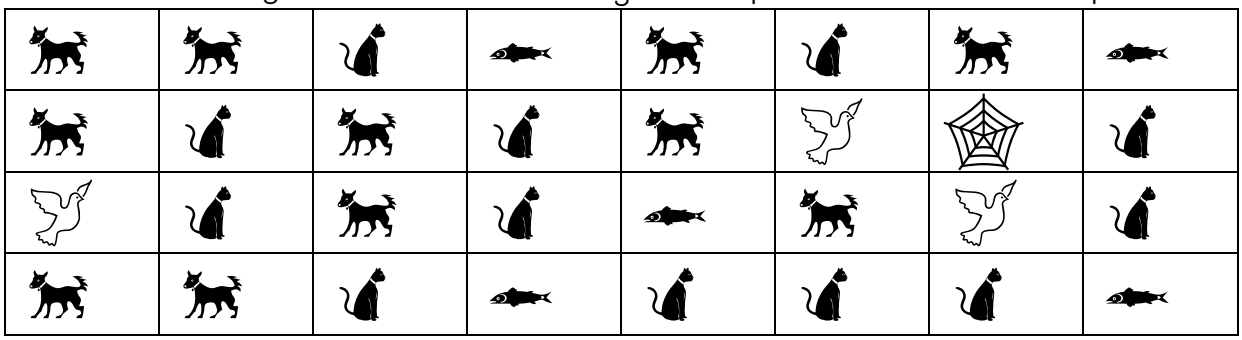
5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 25: Data – Bar graphs and tables

Classwork

1. The children in your class have these dogs, cats, spiders, fish and birds as pets.



e) Use the tally table to sort the data and find the number of each type of pet.

Pet	Tally	Frequency
Dogs	(𝍸 𝍸 |)	(11)
Cats	(𝍸 𝍸 ||)	(12)
Spiders	(|)	(1)
Fish	(𝍸)	(5)
Birds	(|||)	(3)

f) What is the most popular pet? (Cats)

g) What is the least popular pet? (Spiders)

h) How many children are there in the class? (32)

i) What is the difference between the number of dogs and the number of birds as pets? (8)

j) What is the difference between the number of cats and the number of spiders as pets? (11)

k) What else do you notice that is interesting about the information? (Various e.g. Nobody has a tortoise.)

Homework

(Learner answers will vary.)

1. Ask each person who lives in your home to tell you how many slices of bread they ate today.
2. Write this number on the list you created yesterday next to each person's name. Call this "Day 2".

Week 6

Lesson 26: Data -Tallies and tables

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 5.4 Collect and organise data

Lesson Vocabulary: Tallies, tally table and frequency table, bar graph

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Draw bar graphs and tables from tallies.
- Make individual pictograph with one-to-one correspondence from data provided in either picture form or table.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 3's from any number between 0 and 200

Mental maths activity – 10 minutes
What number should you add to the number to make it 20?

		Answer			Answer
1.	15	5	6.	13	7
2.	8	12	7.	12	8
3.	7	13	8.	10	10
4.	16	4	9.	19	1
5.	14	6	10.	17	3

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources:n/a

DBE workbook activities relevant to this lesson:

- Worksheet 36 (pgs 84 and 85)

Concepts:

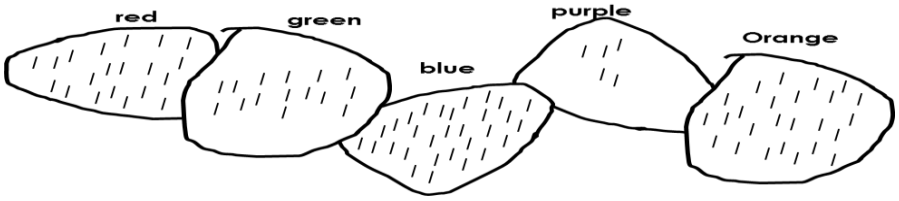
- Collect data about the class to answer a question posed by the teacher.
- Use tallies to record data in categories provided.

Remediation: Revise counting in fives.

- Now show learners how to count the tallies by giving learners strips of paper and glue to make bundles of five. Ask the learners to paste four sticks next to one another. Then ask them to paste the fifth stick. Count the tallies. E.g. 5, 10, 15, 20, 25, …. Now ask learners to draw tallies showing: 45, 50 and 25.
- Revise one -to -one correspondence (matching one thing with another one so that every item can have a partner if possible)
- Show learner show every item corresponds with a tally mark and that the 5^{th} item in a group is always shown with a horizontal line over the four vertical lines (like in their paper bundles above).

Enrichment: See Enrichment Activity Cards

Activity 1:Creating a Table (Draw the following shetch on the board before the lesson.)



Tell the learners that you asked some children what their favourite colours were and that the sketch on the board shows what they said.
Explain that together you are going to use the information in the sketch to fill in the information on the tally table and then to complete the frequency table which will show the children's favourite colours.

Children's favourite colours

Colour	Tally	Frequency
Red	(𝍸 𝍸 𝍸 𝍸)	(20)
Green	(𝍸 𝍸 𝍸)	(15)
Blue	(𝍸 𝍸 𝍸 𝍸 𝍸 𝍸)	(30)
Purple	(𝍸)	(5)
Orange	(𝍸 𝍸 𝍸 𝍸 𝍸)	(25)

Activity 2: Drawing a bar graph
Using the information in the tally table to draw an appropriate bar graph interactively with the children.
Show the learners how to draw a bar graph using the table. Show learners how to label a bar graph.

Activity 3: Data Analysis
Ask learners to tell you anything that is interesting about the graph.eg
Purple is the least popular colour / For every person who likes green, two people like blue. /Orange is the second most popular colour.

4. Classwork activity – 25 minutes (See next page)

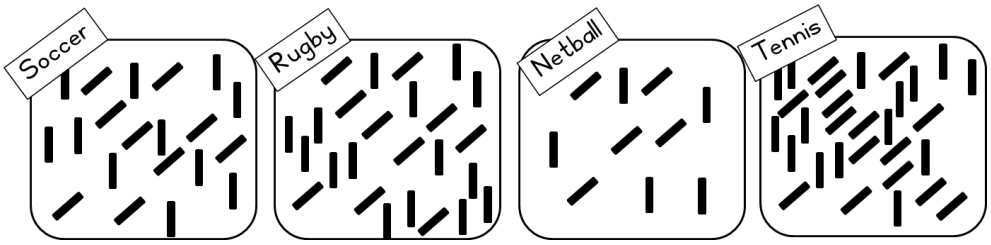
5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 26: Data – tallies and tables

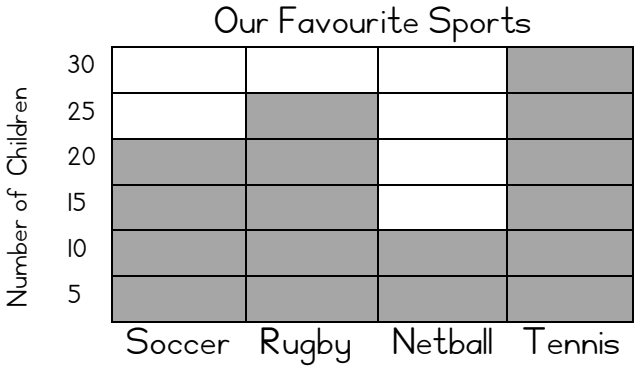
Classwork

1. Use the information given below to draw a tally table of our favourite sports.



Pet	Tally	Frequency
Soccer	(𝍸𝍸𝍸𝍸)	(20)
Rugby	(𝍸𝍸𝍸𝍸𝍸)	(25)
Netball	(𝍸)	(10)
Tennis	(𝍸𝍸𝍸𝍸𝍸𝍸)	(30)

2. Now show this information on a bar graph.



3. Which is the most popular sport? (tennis)
4. List the sports in order from the least popular to the most popular. (netball, soccer, rugby, tennis)

Homework

(Learner answers will vary.)

1. Ask each person who lives in your home to tell you how many slices of bread they ate today.
2. Write this number on the list you created yesterday next to each person's name. Call this "Day 3".
3. Count up the number of slices of bread eaten by each person over the three days.
4. Draw a tally table to show your results.

Lesson 27: Sharing leading to fractions

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.17 Fractions

Lesson Vocabulary: Sharing and fractions, halves, quarters, three quarters ,thirds, sixths

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Use and name fractions in familiar contexts including halves, quarters, thirds and fifths.
- Recognise fractions in diagrammatic form and write fractions as 1 half, 2 thirds.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 2s, 5s and 10s from any number between 0 and 100

Mental maths activity - 10 minutes

	Calculate:	Answer		Calculate:	Answer
1.	42 + 10 =	52	6.	62 + 10 – 1 =	71
2.	42 + 10 – 1 =	51	7.	72 + 10 =	82
3.	52 + 10 =	62	8.	72 + 10 – 1 =	81
4.	52 + 10 – 1 =	61	9.	82 + 10 =	92
5.	62 + 10 =	72	10.	82 + 10 – 1 =	91

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: Cones, sharing circles, hula hoops, counters

DBE workbook activities relevant to this lesson:

- Worksheet 31 (p 72)

Concepts:

- Solve and explain solutions to practical problems that involve equal sharing leading to solutions that include unitary fractions e.g. 1/2, 1/4, 3/4, 2/5 etc.
- Use and name fractions in familiar contexts including halves, quarter, eights, thirds, sixths, fifths.

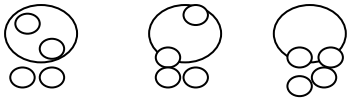
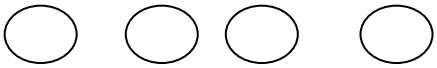
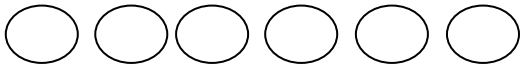
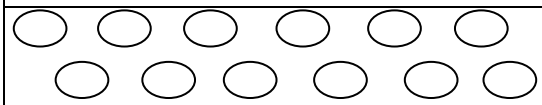
Remediation: Work with smaller numbers e.g. 6 shared into thirds and 4 shared into quarters.

Enrichment: See Enrichment Activity Cards

Activity 1:
Take your learners outside and do the following activities.

- Divide the class into groups of even numbers. Give each group two hula hoops. Ask the groups to divide themselves into two smaller equal groups, by stepping inside the hoops one at a time. When they are finished ask them to describe what they had just done. (Our group has 6 children. If we divided ourselves equally between the 2 hoops, there are 3 children in each hoop. We can also say that one half of our group is 3.)
- Take the learners back to the class. Learners work in pairs. Give each pair a worksheet with sharing circles and 12 counters as shown below.
- Ask each pair to take twelve counters and share them equally. Remind learners about how they shared counters when they did grouping by discussing sharing into three equal portions with them. (They need to pick up the exact number of counters that they will need to make a complete row for sharing, for example for the row with three circles they will pick up three counters and share these before picking up the next three counters.)

Let the learners do the rest of the worksheet by themselves.

Name:		Date:
Share twelve counters equally in each row.	**Write a sentence to show what you have found.**	**Write a number sentence which describe each of the fractions you made.**
		
	If I make three equal portions I will get three (thirds).	One third of twelve is …(3) Two thirds of 12 is …(8) Three thirds of twelve is (12)
		
		
		

Do this example with the learners. They will do the rest by themselves.

4. Classwork activity – 25 minutes (See next page)

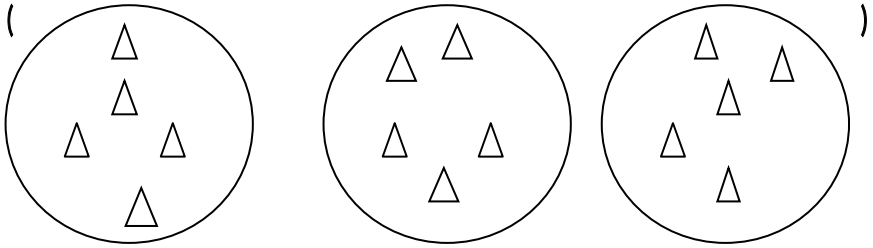
5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

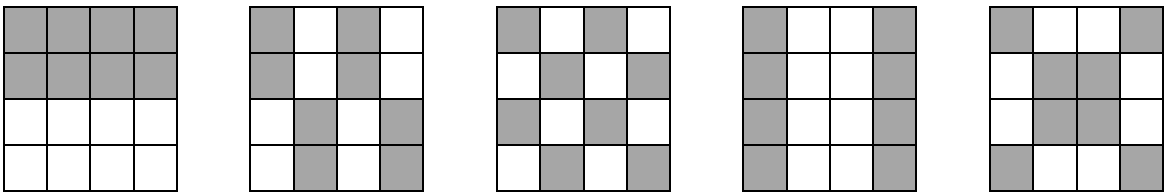
Term 1 Lesson 27: Sharing leading to fractions

Classwork

1. Write as a fraction symbol.
   a) one half (½)
   b) one quarter (¼)
   c) one third (1/3)
2. Draw three circles like these into your book. Share 15 triangles between the circles. What is one third of 15? (5)



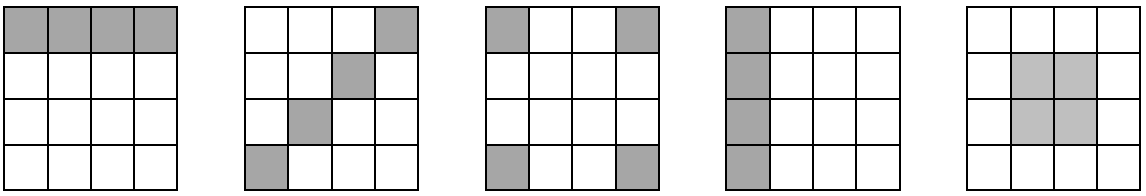
3. Colour in a half of each shape below in a different way. (various) eg.



4. Draw 4 circles in your book and label each one as 1 fourth, 2 fourths, etc.
5. Share 24 beads amongst the 4 circles. (Similar to Q2 above)
6. Copy the sentences and fill in the missing words:
   a) One fourth of 24 counters is (6 counters)
   b) Two fourths of 24 counters is (12 counters)
   c) Three fourths of 24 counters is (8 counters)
   d) Four fourths of 24 counters is (24 counters)

Homework

1. Colour in a quarter of each shape below in a different way. (various eg.



Lesson 28: Fractions: as parts of a group

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.17 Fractions

Lesson Vocabulary: Sharing and fractions, halves, quarter, eights, thirds, sixths, fifths.

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Use and name fractions in familiar contexts including halves, quarters, thirds and fifths.
- Recognise fractions in diagrammatic form and write fractions as 1 half, 2 thirds.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 3's from any number between 0 and 100
- Count backwards in 3s from 30 to 3.

Mental maths activity - 10 minutes

	Calculate	Answer		Calculate	Answer
1.	42 + 9 =	41	6.	42 + 11 =	53
2.	52 + 9 =	51	7.	52 + 11 =	63
3.	62 + 9 =	61	8.	62 + 11 =	73
4.	72 + 9 =	71	9.	72 + 11 =	83
5.	82 + 9 =	81	10.	82 + 11 =	93

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: n/a

DBE workbook activities relevant to this lesson:

- Worksheet 31 (p 73)

Concepts:

- Use and name fractions in familiar contexts including halves, quarter, eights, thirds, sixths, fifths.

Remediation: Give the learners two green and four orange beads. Ask them the following questions:

- How many beads are there? (Six)
- What fraction is green? (Two sixths are green.)
- What fraction is orange? (Four sixths are orange.)

Ask similar question for: four green and four orange beads; one green and three orange beads.

Enrichment: See Enrichment Activity Cards

Activity 1:
Do the following activities with your children.
There are three girls and two boys. (Remember to carefully select the total number of children in the group first.)

- How many children are there? (5)
- How many boys? (2)
- What fraction are boys? (2 fifths)
- How many girls? (3)
- What fraction are girls? (3 fifths)

There are two girls and one boy.

- How many children are there? (three)
- How many boys? (1)
- What fraction are boys? (1 third)
- How many girls? (2)
- What fraction are girls? (2 thirds)

There are 5 boys and 3 girls.

- How many children are there? (eight)
- How many boys? (5)
- What fraction are boys? (5 eighths)
- How many girls? (3)
- What fraction are girls? (3 eighths)

4. Classwork activity – 25 minutes (See next page)

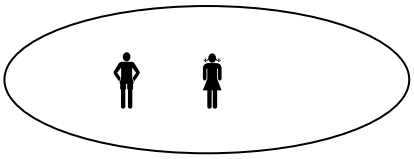
5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 28: Fractions as parts of a group

Classwork

1. There is 1 boy and 2 girls standing together.



   a. How many children are there altogether? (3)
   b. How many boys are there? (1)
   c. What fraction of the children are boys? (1/3)
   d. How many girls are there? (2)
   e. What fraction of the children are girls? (2/3)
2. There are 12 boys and 3 girls.
   a. How many children are there altogether? (15)
   b. How many boys are there? (12)
   c. What fraction of the children are boys? (12/15)
   d. How many girls are there? (3)
   e. What fraction of the children are girls? (3/15)
3. Draw 4 green and 2 orange beads in your book. What fraction of the beads is orange? (2/6)
4. Draw eight squares. Colour four of the squares. What fraction did you colour? (4/8 or ½)
5. Draw four green and four orange beads in your book. What fraction of the beads is orange? (4/8 or ½)

Homework

1. Draw five green and three orange beads in your book.
   a) What fraction of the beads is green? (5/8)
   b) What fraction of the beads is orange? (3/8)
2. Draw six circles. Colour three of the circles. What fraction of the circles did you colour? (3/6 or 1/2)

Lesson 29: Fractions (fractions shapes)

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.17 Fractions

Lesson Vocabulary: Sharing and fractions, halves, quarter, eights, is equal to

Prior knowledge
In Grade 2 the learners should have learnt how to:
- Use and name fractions in familiar contexts including halves, quarters, thirds and fifths.
- Recognise fractions in diagrammatic form and write fractions as 1 half, 2 thirds.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths
Counting - 5 minutes
- Count forwards in 3's from any number between 0 and 100
- Count backwards in 3s from 30 to 3.

Mental maths activity - 10 minutes
Use what you know about doubling to work these out.

		Answer			Answer
1.	10+10=	20	6.	20+21=	21
2.	10+11=	21	7.	50+50=	100
3.	10+9=	19	8.	50+49=	99
4.	20+20=	20	9.	50+51=	101
5.	20+19=	39	10.	100+101=	201

2. Homework/Corrections – 15 minutes
Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes
Resources: A5 Paper, fraction circles (see printable materials attached)

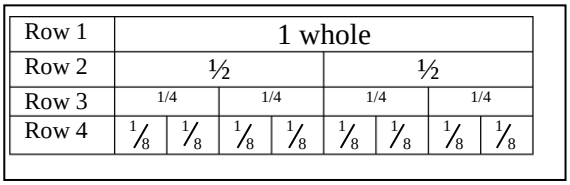
DBE workbook activities relevant to this lesson:
- Worksheet 57 (p 128-129)
- Worksheet 7 (p 16-17)

Concepts:
- Solve and explain solutions to practical problems that involve equal sharing leading to solutions that include unitary fractions e.g. 1/2, 1/4, 3/4, 2/5 etc.
- Begin to recognise that two halves or three thirds make one half and two quarters are equivalent.
- Use and name fractions in familiar contexts including halves, quarter, eights, thirds, sixths, fifths and recognise fractions in diagrammatic form.

Remediation: Make fraction circles (showing halves, quarters and eighths). Do the same activity as in the lesson but focusing only on wholes, halves and quarters, before moving onto eighths. Learners physically place the cut outs on the whole shape to establish relationships.

Enrichment: See Enrichment Activity Cards

Activity 1:
Give learners 8 strips of paper of the same size. (You could give them a ruled A5 piece of paper for them to cut into equal sized strips.)
Use the illustration on the right with these steps.



- Ask learners to stick the first strip (Row 1) into their maths books. Label this '1 whole'
- Take the 2nd strip (Row 2). Fold in the middle. Label each part '½'. Stick into maths books.
- Discuss the relationships between the half and the whole (by looking at the vertical dividing lines between the two eg. two halves make one whole and one whole makes two halves. Encourage learners to verbalise their thoughts by using the correct vocabulary.
- Take another piece Row 3 and fold into 4 pieces, stick in maths books and label each part ¼ .
- Discuss relationships eg two quarters make one half, Four quarters make one whole.
- Do the same for eighths.

Activity 2:
Ask learners to use their fraction walls to find fractions that are the same size.

a) 1 whole = (4) quarters
b) one half = (2) quarters
c) 4 quarters = (2) halves
d) (4) eighths = one half
e) ¾ = (6) eighths

Activity 3: Fraction Circles
Use the printable fraction circles to repeat Activities 1 and 2 above.

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 29: Fraction shapes

Classwork

1. A circle, divided in quarters has two quarters that are coloured.
   a) What fraction is coloured? (1/2)
   b) What fraction is not coloured? (1/2)
2. A rectangle, divided into sixths has four parts that are coloured.
   a) What fraction is coloured? (2/3)
   b) What fraction is not coloured? (1/3)
3. A circle, divided into fifths has four parts that are coloured.
   a) What fraction is coloured? (4/5)
   b) What fraction is not coloured? (1/5)
4. A rectangle, divided into thirds has two parts that are coloured.
   a) What fraction is coloured? (2/3)
   b) What fraction is not coloured? (1/3)

Homework

1. Draw a fraction board in your book. Colour the following fractions:

4. one half,
5. one third,
6. three quarters,
7. five fifths,
8. two sixths
9. three eighths.

<table>
<tr><td colspan="4">one half</td><td colspan="4">one half</td></tr>
<tr><td colspan="2">one quarter</td><td colspan="2">one quarter</td><td colspan="2">one quarter</td><td colspan="2">one quarter</td></tr>
<tr><td>one eighth</td><td>one eighth</td><td>one eighth</td><td>one eighth</td><td>one eighth</td><td>one eighth</td><td>one eighth</td><td>one eighth</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="2">one third</td><td colspan="2">one third</td><td colspan="4">one third</td></tr>
<tr><td colspan="2">one sixth</td><td colspan="2">one sixth</td><td colspan="2">one sixth</td><td colspan="2">one sixth</td></tr>
<tr><td colspan="8"></td></tr>
<tr><td colspan="2">one fifth</td><td colspan="2">one fifth</td><td colspan="2">one fifth</td><td colspan="2">one fifth</td></tr>
</table>

2. Fill in >or<or=

f) one half (<) five fifths
10. five fifths (>)three quarters
11. two sixths (=)one third

Lesson 30: Capacity/Volume

CAPS Topics:1.1 Count objects 1.2 Count forwards and backwards 1.6 Problem-solving techniques and 4.4 Capacity / Volume

Lesson Vocabulary: capacity, volume, compare, frame of reference, estimate, measure, record, Remember:

- '*Capacity*' refers to how much a container e.g. an ice-cream container can hold when it is full. A 2L ice cream container has a capacity of 2L
- *'Volume'* refers to how much space something e.g. 1L ice-cream occupies in the container. There can be 1L of ice cream in a 2L container.

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Read markings on jugs where the volume is near to a 1litre or 2 litre gradation line.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 4s from any number between 0 and 100 .

Mental maths activity - 10 minutes

Use what you know about doubling to work these out.

		Answer			Answer
1.	10 +1 0=	20	6.	25 + 24 =	49
2.	10 +11 =	21	7.	50+50 =	100
3.	10 + 9 =	19	8.	50+49 =	99
4.	25+25 =	50	9.	50+51=	101
5.	25+26 =	51	10.	100+101=	201

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes.

Resources: Spoons, clear/see-through cups (2 cups for each group and an extra set for the teacher for demonstration). Various other containers e.g. jugs, 1, 2 & 3 litre plastic bottles, margarine containers.

DBE workbook activities relevant to this lesson:

- Worksheet 14 (p 30)

Concepts:

- Estimate measure, compare and order the capacity of containers by using non-standard measures e.g. spoons and cups
- Describe the capacity of the container by counting and stating how many of the informal units it takes to fill the container e.g. the bottle has a capacity of four cups

Remediation: Help children who are struggling to improve their skills to use their 'frame of reference' containers more effectively by using smaller containers with clearer variation in size and visible liquid eg. water with food colouring. Children must also use what they already know to solve a new problem e.g. the correct measurement of a container measured previously in the step.

Enrichment: See Enrichment Activity Cards

Activity 1: Draw the table below on the board for this lesson.
Work in small groups (pairs or fours).

- Ask the learners to put their apparatus for measuring (spoons, cups, etc) together and show them how to label their containers by numbering them.
- Demonstrate how you measure five spoons of sand into your see-through cup.
- Then ask the learners to measure ten spoons of sand into one of the see-through cups. Ask them to keep this cup with sand aside to use as a frame of reference for their follow up estimation and measuring activities.
- Now ask learners to estimate how many spoons of sand they think will fill the second see-through cup. Tell learners to first look at and think about how much 10 spoons of sand looks like before they estimate.
- They record this information in the table below in the "I estimate" column.

	How many spoons fill		
Container numbers	**I estimate**	**I measure**	**How close was I?**
1 (e.g. see-through cup)			
2 (e.g. yellow mug)			
3 (e.g. margarine tub)			
?			

- Thereafter learners fill the empty cup with sand with their spoons and record the actual number of spoons of sand that filled the cup in the appropriate column in the table. Finally calculate how far off they were.
- Continue with each container, estimating, recording, measuring, recording, and calculating how close they were for each of the containers used. Remind children to use their 'frame of reference' cup for every estimation. The table must be completed horizontally one row at a time.

Note: There is no correct answer in an estimation activity. The important point is that children should improve their estimation skills as they go along and children's confidence in measuring should be developed through encouragement.

Ensure that every child gets a turn and listen carefully to the group discussions as this will be your assessment of their learning.

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 30: Capacity / volume

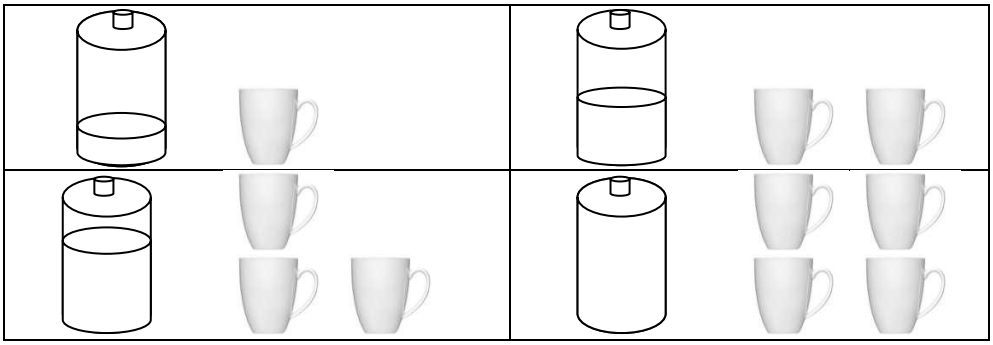
Classwork

If one cup fills a jug up to the 250 ml, how many cups do you need to fill the jug to:

a) 500 ml (2 cups)
b) 250 ml (1 cup)
c) 750 ml (3 cups)
d) 1000 ml (4 cups)
e) 1 litre (4 cups)

Homework

1. Divide a page in your maths books into four equal blocks.
2. Draw a 1 litre bottle in each block.
3. Draw a cup next to the first bottle, two cups next to the second bottle, three cups next to the third bottle and four cups next to the fourth bottle.
4. Draw up to where you think the cups will fill each bottle.



Week 7

Lesson 31: Capacity/Volume

Teacher's notes

CAPS Topics: 1.2 Count forwards and backwards 1.16 Mental Mathematics 4.4 Capacity

Lesson vocabulary: Capacity, litres, millilitres, most, least, more than, less than, compare, record , standard cup, tea spoon, fill, full, container

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Estimate, measure, compare, order and record the capacity of objects.
- Compare, order and record the capacity of commercially packaged objects whose capacity is stated in litres.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting – 5 min

- Count forwards in 2s and 4s from any number between 0 and 100 .

Mental maths activity - 10 minutes

Put the number in the box to make 100

		Answer			Answer
1.	□ + 70 = 100	30	6.	90 + □ = 100	10
2.	□ + 50 = 100	50	7.	□ + 30 =100	70
3.	20 + □ = 100	80	8.	□ + 80 = 100	20
4.	40 + □ = 100	60	9.	□ + 20 + 100	80
5.	60 + □ = 100	40	10.	10 + □ = 100	90

2. Homework– 15 minutes

Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development – 30 minutes

Resources: Containers on which you can see the capacity eg. 250 ml cup, teaspoon, an empty 1litre bottle, pictures of products on which you can see the capacity eg. 250 ml cup, teaspoon, an empty 1litre

DBE workbook activities relevant to this lesson:

- Worksheet 14 (p 31)

Concepts

- Compare, order and record the capacity of commercially packaged objects whose capacity is stated in litres.
- Know that a standard cup is 250 millilitres and that a teaspoon is 5 millilitres.

Remediation: Show learners a standard cup. Ask them how much it can hold. (250 ml) A standard cup can hold 250 ml. Demonstrate to learners that four standard cups will fill a 1 litre container. Empty the 1 litre container. Pour in one cup of liquid. Is the bottle almost filled up to 1 litre? (No) Pour in another cup of liquid.

The 1 litre bottle is now filled halfway. Pour in another cup of liquid. Is the bottle almost filled up to 1 litre? (No – needs one more cup) .

Enrichment: See Enrichment Activity Cards

Activity 1: Work in groups of four.

- Give each group pictures of products or empty containers on which they can see the capacity, e.g.

3L 1L 5L 500 ml 2L

Ask the learners to order the containers from the one that holds the least to the one that holds the most.

Activity 2: Answer the following questions (based on your pictures).

- The capacity of the yoghurt container is _____.(1 litre).
- The capacity of the Pepsi container is _____.(500 ml).
- The capacity of the oil container is _____(2 litres).
- The capacity of the water bottle is _____ .(3 litres).
- The capacity of the milk container is _____(5 litres).
- The capacity of the _____(milk) container is largest. It contains ___ (3) litres more than the oil container.

Activity 3:

Talk about filling from the smaller container into the bigger container. When you do this work out how many times you will need to pour from the smaller one into the bigger one in order to fill it.

Examples: (use your product pictures and measurements if they are different)

How many Pepsi bottles (500ml) will fill:

- The milk container? (10);
- The yoghurt container? (2)

How many standard cups (250ml) will fill:

- The Pepsi container? (2)
- The oil container? (8),

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson:

Term 1 Lesson 31: Capacity / volume

Classwork

1. Look at the items below and answer the following questions.

5 L


500 ml

1 L

340 ml

3 L

5 L

a) The capacity of the Sunlight Liquid container is (5l)
b) The capacity of the milk container is (1 l)
c) The capacity of the Vanish container is (3 l)
d) The capacity of the Dettol container is (5 l)
e) The capacity of the green milkshake bottles is . (500ml)
f) The capacity of the Fanta container is (340ml)
g) The capacity of the (Sunlight Liquid/ Dettol) container is largest. It contains (5l).

Homework

(Learner answers will vary.)

1. Find three containers at home that have capacities of the following amounts.
   a) one litre
   b) 500ml
   c) 250ml
2. Draw pictures of the containers
3. Label them according to their capacities.

Lesson 32: Time-Calendars

CAPS Topics: 1.2 Count forwards and backwards, 1.16 Mental mathematics, 4.1 Time

Lesson Vocabulary: Calendar, date, religious festivals, public holiday, birthdays, historical events

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Use calendars to calculate and describe length of time in days or weeks.
- Place birthdays, religious festivals, public holidays, historical events, school events on a calendar.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 2s from any number between 0 and 100.
- Count forwards in 4s from any number between 0 and 100.
- Count 8 steps forwards in 2s from 20. How far did you count? (36)
- Count 4 steps forwards in 4s from 20. How far did you count? (36)

Mental maths activity - 10 minutes
Calculate the following:

		Answer			Answer
1.	10 + 10 =	20	6.	19 – 8 =	11
2.	20 – 10 =	10	7.	18 – 8 =	10
3.	13 + 3 =	16	8.	17 + 2 =	19
4.	15 + 5 =	20	9.	12 + 6 =	18
5.	16 + 4 =	20	10.	11 – 7 =	4

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: Current calendar (1 per pair)

DBE workbook activities relevant to this lesson:

- Worksheet 12 (p 74 and 75)

Concepts:

- Read dates on calendar.
- Place birthdays, religious festivals, public holidays, historical events, school events on a calendar.

Remediation: Give learners a monthly calendar, example April. Ask them the following.
How many days are there in April? How many Sundays/Tuesdays are there in April? What is the date on the second Sunday in April? Tell me something about the 12th of April? (it comes after the 11th/before the 13th/ it is a Friday). Show me the 19th of April. On what day is this? Which public holidays are in this month?

Enrichment: See Enrichment Activity Cards

Activity 1:
Divide the class into pairs - give each pair a copy of the year's calendar

- Revise all the public holidays.
- In groups learners circle their dates of birth on the calendar.
- While the learners are doing this, write all the public and historical days on the board. Add any other religious festivals that relates to learners in your school.

Public holidays 2013

1 January	New Year's Day
21 March	Human Rights Day
29 March	Good Friday (Friday before Easter Sunday)
1 April	Family Day (Monday after Easter Sunday)
27 April	Freedom Day
1 May	Workers' Day
16 June	Youth Day
17 June	Public holiday
9 August	National Women's Day
24 September	Heritage Day
16 December	Day of Reconciliation
25 December	Christmas Day
26 December	Day of Goodwill

Source: http://www.info.gov.za/aboutsa/holidays.htm

Public Holidays

Ask learners to use a different colour to circle the days as you discuss them
Ask learners question such as:

- What happens on the 27 of April? Show me the date on the calendar.
- What happens on the 9th of August? Show me the date on the calendar.
- Which religious day is important for your family? Show it on the calendar and share it with your friends.
- How many days between Christmas and New Year?
- When is Good Friday this year?
- Which public holiday is 3 days after Good Friday?
- How many school days until the end of the term?

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 32: Time - calendars

Classwork

1. Complete:
   a) 1 week = (7)days
   b) (4) weeks = 28 days
   c) The longest months are
   (January, March, May, July, August, October, December)
   d) The eighth month of the year is (August). It has (31) days.
2. Look at the yearly calendar. What do you notice when a public holiday is on a Sunday?
   (Monday is also a public holiday.)
3. Are there any public holidays on a Sunday this year?
   (Answers will vary depending on the year.)
4. On what day is the 12 of April? What day is before the 12th and what day is after the 12th of April? (Learner answers will vary depending on the year.)

Homework

(Learner answers will vary depending on the year.)

1. Draw a calendar like the one below for this month and fill in the dates.

Month:						
Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday

2. How many Sundays are there in this month?
3. How many school days are there in this month?

Lesson 33: Time - Analogue Time

CAPS Topics: 1.2 Count forwards and backwards, 1.16 Mental mathematics, 4.1 Time

Lesson Vocabulary: Analogue time, digital time, hours, half hours, quarter hours, minutes, clock, o'clock

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Tell 12 – hour time in: Hours, half hours, quarters and minutes on analogue clocks.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 2s from any number between100 and 200 .
- Count forwards in 4s from any number between10 0 and 200 .
- Count 8 steps forwards in 2s from 40. How far did you count? (56)
- Count 4 steps forwards in 4s from 40. How far did you count? (56)
  What did you notice? (It takes twice as many steps to get to 56 if I count in 4s.)

Mental maths activity - 10 minutes
If we are counting in 10's on a number line, how many jumps do we need to get to 100?

		Answer			Answer
1.	10	(20, 30, 40....100) 9	6.	60	4
2.	30	7	7.	50	5
3.	40	6	8.	0	10
4.	90	1	9.	20	8
5.	70	3	10.	100	0

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: Analogue and Digital clocks

DBE workbook activities relevant to this lesson:

- Worksheet 32 (p 74 and 75)
- Worksheet 12 (p 26)

Concepts:

- Tell 12 – hour time in: Hours, half hours, quarters on analogue clocks and digital clocks and other digital instruments that show time eg. cell phones.

Remediation: Begin by revising the o' clock. Use your demonstration clock to show learners that the short hand remains on the twelve. Set various times and the learners read. Follow this with learners setting the time on their own clock faces (made with cardboard, split pins and a paper plates) as you call out various times. Follow this with half past. Use a real clock to show that as the long hand moves to half past, the short hand too begins its very slow journey to the next hour.
Continue with the steps as for o' clock. Do the same for quarter past. Then for a quarter to.

Enrichment: See Enrichment Activity Cards

Activity 1: Revising Analogue Time

- Revise analogue time. Ask questions such as
- How many minutes in an hour? (60). What do we mean when we say 4 o' clock?(That the time is exactly on the hour- not before or after). Show me 4 o' clock on this clock.
- How many minutes in half an hour?(30). When we read time, how do we say half an hour from the full hour or the o'clock? (half past). On this clock show any time that shows *half past* and read the time to me. (e.g. half past three). Do the same for *quarter past* and *quarter to*.

Activity 2: Digital Time You need to compile a table like the one below either on chart paper or on the board before the lesson. The 24hour clock column will be filled during the lesson.

Ask if any children can read the time on cell phones, microwave ovens, etc. Discuss digital clocks by covering the following points

- Digital clocks work in 24 hour cycles- day +night. So we see any hour only once. On an analogue clock we have 12 hours for a.m. and 12 hours for p.m. but on the digital clock these are put together and we have 24 hours.
- Explain to the learners that if you had two watches, one analogue and one digital, and they needed to show 8 o' clock in the morning this is how it would look. (First show this on actual clocks and then draw a clock face showing 8 o' clock for the analogue clock and write 08:00 to show digital time next to it.)
- Use an analogue and digital clocks to show every hour and ask children to have a go at helping you to complete a table on the board from 01:00 -12:00.

Time in words	24 hour clock
midnight	12:00
quarter past twelve	12:15
half past twelve	12:30
quarter to one	12:45
one o' clock	01:00
etc	
midday	12:00

Activity 3:

a. Ask learners how we write these times in digital time
   - Half past three (3:30)
   - Quarter past three (3:15)
   -

b. How do we write these times in analogue time
   - 07:45 (quarter to 8 in the morning)
   - 12:00 (twelve o' clock)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

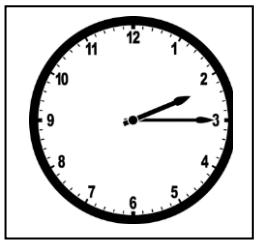
1. **DBE Worksheet 32** (pgs74-75)

6. Reflection on lesson

Term 1 Lesson 33: Analogue time

Classwork

1. Write these times in digital time
   a) Half past seven, (7:30)
   b) Quarter past seven, (7:15)
   c) Quarter to 4, (3:45)
   d) Quarter past four. (4:15)
   e) Half past 5. (5:30)
2. Write these times in analogue time
   a) 05:30 (half past 5)
   b) 14:00 (two o' clock))
   c) 24:00 (twelve o' clock)
   d) 19:00 (seven o' clock)
   e) 00:15 (quarter past twelve)
3. Draw a clock showing quarter past two.



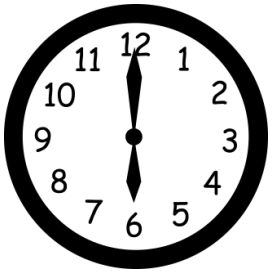
(2:15 or quarter past two)

   a) Write the time below the clock
   b) How many minutes is it before 3 o'clock. (45 minutes)
   c) Where is the hour hand pointing? (just after 2)
   d) Where is the minute hand pointing? (at 3)

Homework

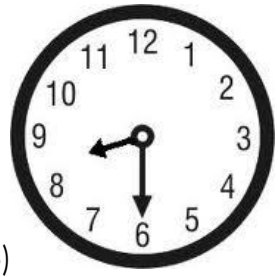
1. Draw clock faces for:
   a) ten o'clock
   b) twelve o'clock
   c) six o'clock
2. Write down the times shown on these clocks:

a)



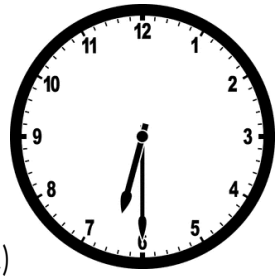
(6 o' clock)

b)



(half past eight)

c.)



(half past six)

Lesson 34: Time – Calculating time passed

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 4.1 Time

Lesson Vocabulary: Analogue time and digital time, hours, half hours, quarters and minutes

Prior knowledge
In Grade 2 the learners should have learnt how to:

- Tell 12 – hour time in: Hours, half hours, quarters and minutes on analogue clocks.
- Calculate length of time and passing of time.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count 6 steps forwards in 2s from 40. How far did you count? (52)
- Count 3 steps forwards in 4s from 40. How far did you count? (52)
  What did you notice? (It takes twice as many steps to get to 52 if I count in 4s.)

Mental maths activity - 10 minutes
Listen carefully for the larger number then count on from the larger number to find the answer.

		Answer			Answer
1.	2 + 12 =	12 + 2 = 14	6.	17 + 2 =	17 + 2 = 19
2.	3 + 11 =	11 + 3 = 14	7.	11 + 9 =	11 + 9 = 20
3.	12 + 5 =	12 + 5 = 17	8.	4 + 16 =	16 + 4 = 20
4.	7 + 9 =	9 + 7 = 16	9.	3 + 31 =	31 + 3 = 34
5.	5 + 9 =	9 + 5 = 14	10.	32 + 2 =	32 + 2 = 34

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

- **Calculate length of time and passing of time**

Resources: Clocks- analogue (see template included) and a digital clock

DBE workbook activities relevant to this lesson:

- Worksheet 32 (p 74 and 75)
- Worksheet 12 (p 26)

Concepts:

- Calculate length of time and passing of time.

Remediation:
Begin by revising that there are 60 minutes in one hour, 30 minutes in half an hour and 15 minutes in a quarter of an hour. Use a demonstration clock or clocks that the learners have made to count forwards and backwards in whole hours & 60 minutes, / ½ hours & 30 minutes, ¼ hours & 15 minutes

Enrichment: See Enrichment Activity Cards

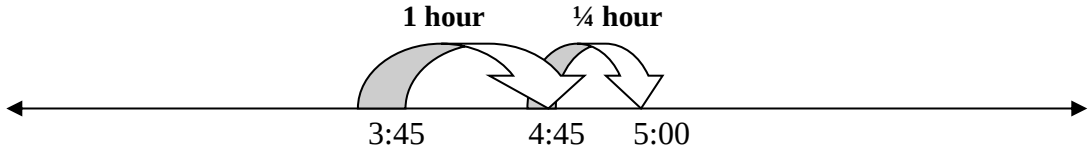
Activity 1: Using a clock to calculate
Write this question on the board:

At what time does school start each day? (8:00)
At what time does school end each day? (1:30)

How many hours are we at school?
Learners use clock faces that they have made . Place the hands of their clocks on 8 o' clock. They then count the
hours from 8 o' clock to 1 o' clock :8:00 9, 10, 11, 12, 1 ⟶ 5 hours and
then the minutes from 1:00 to 1:30 ⟶ half an hour.
The time spent at school is 5 hours + half an hour = 5 ½ hours

Activity 2: Using a number line to calculate
Write this question on the board:

Mum puts a cake into the oven at 3:45. It needs to bake for 1¼ hours.
At what time must she take the cake out of the oven?



Mum needs to take the cake out of the oven at 5:00

Activity 3: Breaking down to calculate
Write this question on the board:

Mpho takes 1½ hours to do her home work. Jenny takes half that amount of time. How long does Jenny take?

1½ hours = 1 hour + ½ hour
Half or 1½ hours = half of 60 minutes + half of 30 minutes
= half of 90 minutes
=45 minutes.

Jenny takes 45 minutes.

4. Classwork activity – 25 minutes (See next page)

5. Homework activity

6. Reflection on lesson

Term 1 Lesson 34: Time

Classwork

1. Write these times in digital time
   a) Half past eight. (8:30)
   b) Quarter to six. (5:45)
   c) Quarter to 9. (8:45)
   d) Quarter past 2. (2:15)
   e) Half past four. (4:30)
2. Write these times in analogue time
   a) 05:00 (five o' clock)
   b) 02:00 (two o' clock)
   c) 12:00 (twelve o' clock)
   d) 07:00 (seven o' clock)
3. How many minutes in one hour? (60 minutes)
4. How many hours in one day? (24 hours)
5. How many days in one week? (7 days)
6. How many months in one year? (12 months)
7. Diksha leaves home at 7:15 and arrives at school at 7:45.
Rebone leaves home at 7 o'clock and arrives at school at a quarter to eight.
How much longer does it take Rebone to reach school than Diksha?
(15 minutes)

Homework

a) How many minutes in 2 hours? (120 minutes)
b) How many hours in 2 days? (48 hours)
c) How many days in 2 weeks? (14 days)
d) How many months in 2 years? (24 months)

Lesson 35: 2-D shapes

Teacher's notes

CAPS Topics:.2 Count forwards and backwards 1.16 Mental Mathematics, 3.3 2-D shapes

Lesson vocabulary: 2-D shapes, rectangle, triangle, circle, square, straight, round, sides, corners

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Recognise and name 3-D objects in the classroom and pictures – ball shapes (spheres), box shapes (prisms), cylinders.
- Describe, sort and compare 3-D objects in terms of: size, objects that roll and objects that slide.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting – 5 minutes

- Count 10 steps forwards in 2s from 140. How far did you count? (160)
  Ask *If I count in 4s how many steps will I need to get to 160?* (5)
  How do you know? (2 x 5 = 10)

Mental maths activity - 10 minutes

Calculate the following:

		Answer			Answer
1.	6 ÷ 2 =	3	6.	12 ÷ 2 =	6
2.	16 ÷ 2 =	8	7.	14 ÷ 2 =	7
3.	8 ÷ 2 =	4	8.	2 ÷ 2 =	1
4.	18 ÷ 2 =	9	9.	20 ÷ 2 =	10
5.	10 ÷ 2 =	5	10.	4 ÷ 2 =	2

2. Homework/Corrections – 15 minutes

Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development – 30 minutes

Resources: labels and cut-outs of rectangle, triangle, circle, square, a bag/pillowcase to put the shapes into.

DBE workbook activities relevant to this lesson:

- Worksheet 10 (p 22-23)

Concepts

- Describe, sort and compare 2-D shapes in terms of: shape, straight sides and round sides.

Remediation:

Work with 2 shapes at a time, eg square and a triangle. Get the learners to compare and describe the similarities and differences between the shapes eg. The square has 4 sides and 4 corners. The triangle has 3 sides and 3 corners. The four sides of the square are all exactly the same size. For the triangle 2 or 3 sides can be the same length or all the sides can be different.
Once this is understood introduce the rectangle . Only after the similarities and differences between the rectangle and square are thoroughly understood introduce the circle. Ensure that the learners get a chance to use the language to describe the shapes correctly.

Enrichment: See Enrichment Activity Cards

Activity 1
Describe a square by saying 'I am thinking about a shape. It has 4 sides and 4 corners. All the sides are the same size and all the corners are the same size. What shape am I thinking about?'
Do the same for triangle, rectangle and square.
Ensure that you model the correct use of vocabulary.

Activity 2
Use presstick to stick cut-outs of the following shapes on the board: rectangle, triangle, circle, square.
Get the learners to identify the labels that belongs to the cut-out of the shapes and place them below the correct shapes.

Point to one shape eg. the **rectangle** and ask the learners to each contribute one sentence towards describing the shape eg. 'It has 4 sides'/ "All the sides are straight'/ 'There are 4 corners'/ 'All the corners are the same size', etc.
Do the same for the remaining shapes. Try to ensure that everyone gets a chance to say something using the correct vocabulary.

Activity 2
Have a bag / pillowcase with cut outs of shapes. Give the bag to one learner. Tell the learner that he/she may not look inside the bag. Ask the learner to find a circle by feeling the shapes. The learner will need to hold up the shape and say how he/she knows that the shape is a circle eg. 'I know that this is a circle because it does not have any corners'.
Pass the bag along to give other children a chance to identify shapes through feeling.

4. Classwork activity – 25 minutes (See next page)

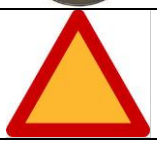
5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson:

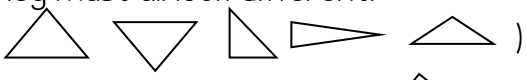
Term 1 Lesson 35: 2-D shapes

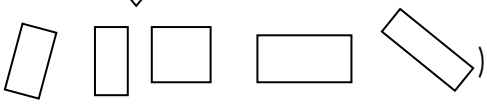
Classwork

1. Copy this table into your classwork book. Draw Fill in only column 2 and 3.

	Object	Drawing of shape	Name of shape
a)		( )	(rectangle)
b)		( )	(square)
c)		( )	(circle)
d)		( )	(triangle)

2. Draw five of each these shapes. They must all look different.

a) Triangles (various eg. )

b) Rectangles (various eg. )

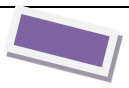
3. Find and cut triangles of different sizes from a magazine or newspaper. Stick them into your book, in all different positions.

a) How many sides does each one have? (3 sides)

b) Are the sides straight or round? (straight)

Homework

Draw and complete this table.

	Name of shape	Number of sides
a) 	(square)	(4)
b) 	(circle)	(1)
c) 	(triangle)	(3)
d) 	(rectangle)	(4)

Week 8

Lesson 36: 2-D shapes: straight or curved sides

Teacher's notes

CAPS Topics: 1.1 Count objects 1.2 Count forwards and backwards 1.16 Mental Mathematics 3.3 2-D shapes

Lesson vocabulary: 2-D shapes, straight sides, curved side, cylinder, cone, pyramid, sphere, prism/box

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Count forwards and backwards from 0 – 200.
- Recognise and name 3-D objects in the classroom and pictures – ball shapes (spheres), box shapes (prisms), cylinders.
- Describe, sort and compare 3-D objects in terms of: size, objects that roll and objects that slide.

Assessment

Refer to the assessment schedule for today's assessment activity.

2. Mental maths

Counting – 5 minutes

- Count forwards in 2s from any number between100 and 400 .
- Count forwards in 4s from any number between100 and 200 .
- Count 12 steps forwards in 2s from 140. How far did you count? (164)
  Ask *If I count in 4s how many steps will I need to get to 160?* (6)
  How do you know? (2 x 6 = 12)

Mental maths activity - 10 minutes

Calculate the following:

	Calculate the following:	Answer		Calculate the following:	Answer
1.	10 x 10 =	100	6.	100 ÷ 10.= ...	10
2.	10 x ...= 100	10	7.	90 ÷ 10 = ...	9
3.	...x 10 =100	10	8.	10 x 9 =	90
4.	100 ÷...= 10	10	9.	Half of 100	50
5.	... ÷ 10.= 10	100	10.	Double 100	200

2. Homework/Corrections – 15 minutes

Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development – 30 minutes

Resources: large sheets of paper, magazines, 3-D shapes: cylinder, cone, pyramid, sphere, prism/box

DBE workbook activities relevant to this lesson:

- Worksheet 11 (p 24 and 25)

Concepts

- Describe, sort and compare 2-D shapes in terms of: shape, straight sides and round sides.

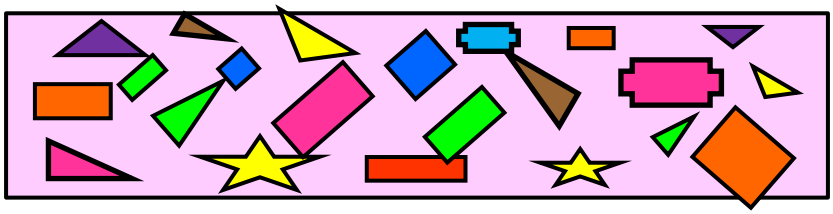
Remediation: Give learners old magazines. Ask them to cut out the following shapes: a triangle, square and a rectangle. Ask them to use their fingers to show you the straight sides. Ask them to now cut out a shape that

only has round sides. (Circle)

Enrichment: See Enrichment Activity Card

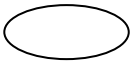
Activity 1
Learners work in groups of four. Give each group a sheet of paper to draw on.

- Ask learners to draw as many shapes as they can think of with straight sides on the paper.
- Every learner in the group should get a chance to draw a shape.
- Compare each group's shapes to see if there are any other shapes that they didn't think of.
- Add those shapes to your group's picture.
- Give each group a turn to call out one shape and a colour. The whole class now colours that shape (e.g. triangles – red).If a group does not have the shape they draw it in.
- Carry on until all the shapes are coloured in.



Activity 2
Revise cylinder, cone, pyramid, sphere, prism/box
Ask children to identify the 2-D shapes on the faces of the 3-D objects
Touch the shapes and say whether the sides are straight or curved.

Activity 3
Revise*: If a shape does not have straight sides, what will it have?* (curved sides)
Draw the following shapes on the board and ask learners to identify the number of straight and curved sides and count them

Drawing of Shape	Number of curved and straight sides
	One curved side
	Three straight sides
	Four straight sides
	two curved and two straight sides

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

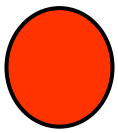
6. Reflection on lesson:

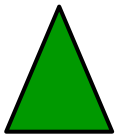
Term 1 Lesson 36: 2-D shapes: straight or round edges

Classwork

1. Say if the following shapes have round or straight sides.

a. b. c.


(round)


(straight)


(straight)

2. Draw as many shapes as you can think of with straight sides.

(Learners answers will vary.)

3. Draw a table like the one below in your book. Find three of each type of pictures in a magazine or newspaper and stick them into your book.

(Learners answers will vary.)

straight sides	round sides	round sides and curved sides
(various eg. door)	(various, eg. clockface)	(various, eg. tin of beans)

Homework

(Learners answers will vary.)

1. Find something in your room that has only straight sides.
2. Find something in your kitchen that has round sides
3. Draw a picture of a tree. You may use one shape with straight sides and one shape with round sides.
4. Draw a picture of a car. You may use two shapes with straight sides and four shapes with round sides.

Lesson 37: Number patterns in 5

CAPS Topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 2.2 Number patterns

Lesson Vocabulary: Number patterns, fives, extend, describe, forwards , backwards, jumps

Prior knowledge
In Grade 2 the learners should have learnt how to:

- work with number sequences up to 200.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 5s from any number between100 and 400 .
- Count backwards in 5s from any number between100 and 200 .
- Count 6 steps forwards in 5s from 40. How far did you count? (70)

Mental maths activity - 10 minutes
Put the larger number first in order to count back and add one more number to the row
Calculate the following:

	Calculate the following:	Answer		Calculate the following:	Answer
1.	5 x 5 =	25	6.	50 ÷ 5.= ...	10
2.	5 x ...= 50	10	7.	50 ÷10 = ...	5
3.	...x 5 =50	10	8.	5 x 10 =	50
4.	50 ÷...= 5	10	9.	Half of 50	25
5.	... ÷ 5.= 5	25	10.	Double 50	100

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: 1-200 number board, counters

DBE workbook activities relevant to this lesson:

- Worksheet 29 question 1a (p 66)
- Worksheet 53 (pgs 120-121)

Concepts:

- Copy and extend and describe number sequences of 5 between 0 and 300. (The number patterns in Lessons 37, 38 and 39 are called growing patterns because the numbers grow bigger or smaller.)

Remediation: Use a number board up to 100.Ask the learners to place a counter on 5. Ask learners to add on five and place a counter on the next number. Continue until 50. Ask the learners if they noticed a pattern? Now ask them to count aloud but this time try to hear themselves counting and look out for a sound pattern. Ask them to fill the number board with counting in fives without counting in ones this time.

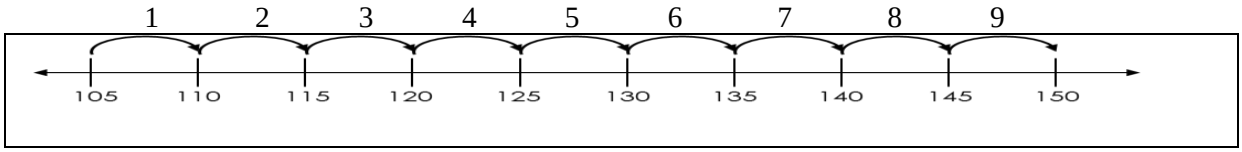
Enrichment: See Enrichment Activity Cards

Activity 1:
Give learners a 100–200 number board. Ask learners to place a counter on 105, 110, 115, 120, 125 and 130. Ask learners to extend the pattern up to 200. Ask them what they notice. Why was it easy to pack out the rest of the pattern? (the counters are placed in two straight lines- the 5s line and the 10s line)

Ask learners to remove the counters from their number boards. Ask questions like these based on counting in fives

- If you are counting forwards what number comes after 100 (105, 110, 115, …..)
- If you are counting backwards what numbers come after 130? (125, 120, 115,….)

Draw the following number line on the board. Tell the learners that they are going to count in fives again, but this time on the number line. Write the number 105 below the number line. Ask the learners to count on in fives and as they do so you write down the numbers for the intervals below the number line. Ask them to count again while you draw the jumps.
Ask : *How many jumps of 5 are there from 105 to 15*0? (9). Show them how you count the jumps. Ask : *Did you count the jumps forwards or backwards?* (forwards).



Also ask how many jumps from 110 to 145 (7 jumps forwards), from 135 to 110 (5 jumps backwards). Do more examples if necessary.

Activity 2:
Note: The table below is for you to organise your thoughts and not for the children.
Copy the number patterns from Column 1, one at a time on the board. For each pattern ask the questions in the table to help the children to develop their understanding. Make sure the learners clearly understand the strategy to complete the pattern before moving to the next example.

Number patterns	**What pattern do you notice?**	**How did you work that out?**	**Are the numbers moving forwards or backwards? ?**	**Which part is missing?**	**How would you complete the pattern?**	**What are the missing numbers**
135, 125, 115,_,_,_	10s pattern.	The size of the jump from 135 to 125 is 10 backwards and the size of the jump from 125 to 115 is 10 backwards.	backwards	The last three numbers	Fill in the numbers that come after 215 when I count backwards in 10s	105, 95, 85
125, 130, 135,_,_,_						
,_,_,_ 135, 125, 115						
,_,_,_ 125, 130, 135						
145 ,_,_,_ 185	*Note: This type of question is quite difficult and therefore optional.*					

4. Classwork activity – 25 minutes (See next page)

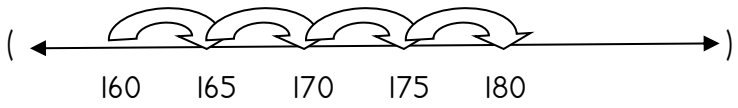
5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 37: Number patterns in 5s

Classwork

1. Extend the pattern:
   a) 85, 90, 95, (100, 105, 110)
   b) 175, 170, 165, (160, 155, 150)
2. Show the following numbers with jumps on a number line:
   160, 165, 170, 175, 180.



3. Complete the pattern.
   a) (215, 210,215) 210, 215, 210
   b) (190, 180, 170), 160, 150, 140
   c) (145, 155, 165), 175, 185, 195
   d) (235, 225, 215), 205, 195, 185
4. Which numbers between 150 and 200 belong to both the 5s and the 10s pattern?
   (160, 170, 180, 190)
5. Copy and underline the numbers do not belong to the patterns.
   a) 160, 180, 120, 150, 190, 103, 140 (160, 180, 120, 150, 190, 103, 140)
   b) 160, 165, 170, 145, 175, 188, 150, 155 (160, 165, 170, 145, 175, 188, 150, 155)
   c) 165, 180, 122, 150, 190, 155, 140, 175 (165, 180, 122, 150, 190, 155, 140, 175)

Homework

1. Complete the pattern:
   a) 125, 130, 135, (140, 145, 150)
   b) 110, 105, 100, (95, 90, 85)
   c) (225, 220, 225), 220, 225, 220
   d) (145, 155, 165), 175, 185, 195
   e) 145, (155, 165, 175), 185
   f) 145, 150, 155,(160, 165, 170)

Lesson 38: Number patterns in 3

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 2.2 Number patterns

Lesson Vocabulary: Number patterns and fours, forwards , backwards, jumps

Prior knowledge
In Grade 2 the learners should have learnt how to:

- work with number sequences up of 3 between 0 and 200.

Assessment:
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 3s from any number between100 and 400 .
- Count backwards in 3s from any number between100 and 200 .
- Count 6 steps forwards in 3s from 30. How far did you count? (48)

Mental maths activity - 10 minutes

Which number is two more than this number?
Calculate the following:

	Calculate the following:	Answer		Calculate the following:	Answer
1.	3 x 10 =	30	6.	30 ÷ 3.= ...	10
2.	3 x ...= 30	10	7.	30 ÷10 = ...	3
3.	...x 3 =30	10	8.	3 x 10 =	30
4.	30 ÷...= 3	10	9.	Half of 30	15
5.	... ÷ 3.= 10	30	10.	Double 30	60

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework.

3. Lesson content – concept development – 30 minutes

Resources: 100-200 Number board, counters

DBE workbook activities relevant to this lesson:

- Worksheet 29 question 1c (p 66)
- Worksheet 58 (pgs 124)

Concepts:

- Copy and extend and describe number sequences of 3 between 0 and 200.

Remediation: Use a number board up to 100. **A**sk the learners to place a counter on 5. Ask learners to add on five and place a counter on the next number. Continue until 50. Ask the learners if they noticed a pattern? Now ask them to count aloud but this time to listen to themselves counting and look out for a sound pattern. Ask them to fill the number board with counting in fives without counting in ones this time.

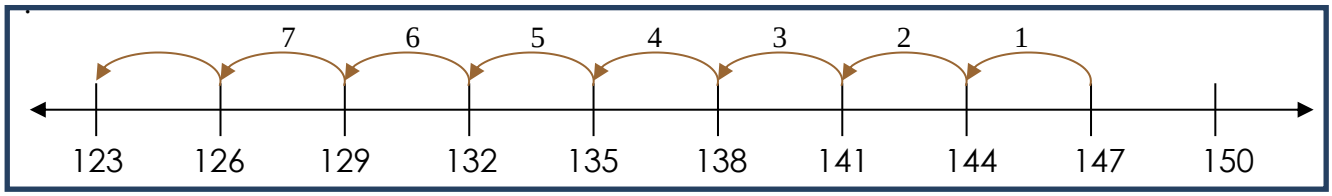
Enrichment: See Enrichment Activity Cards

Activity 1:
Give learners a 100–200 number board. Ask learners to place a counter on 3, 6, 9, 12, 15, 18, 21 and 24. Ask learners to extend the pattern up to 200. Ask them what they notice. Why was it easy to pack out the rest of the pattern? (The counters are placed in diagonal lines.)

Ask learners to remove the counters from their number boards. Ask questions like these based on counting in threes.

- If you are counting forwards what numbers will come after 51? (54, 57, 60,…..)
- If you are counting backwards what numbers will come after 108? (105, 102, 99,…..)

Draw the following number line on the board. Tell the learners that they are going to count in threes again, but this time on the number line. Write number 123 below the number line. Ask the children to count on in threes and as they do so you write down the numbers for the intervals below the number. Now ask the children to count again while you draw the jumps
Ask : *How many jumps of 3 are there from 147 to 126*? (7). Show them how you count the jumps. Ask : *Did you count the jumps forwards or backwards?* (backwards).



- Ask How many jumps from: 123- 149 (8 jumps forward), 150 to 138 (4 jumps backwards), etc.
- Do as many examples as necessary to ensure that the children understand.

Activity 2:

Use this table in the same way as explained in Lesson 37.

Number patterns	**What pattern do you notice?**	**How did you work that out?**	**Are the numbers moving forwards or backwards? ?**	**Which part is missing?**	**How would you complete the pattern?**	**What are the missing numbers**
,_,_,_ 147, 150, 153	3s pattern.	The size of the jumps from 147 to 150 is 3 and the jumps 150 to 153 is 3	*forwards*	The first three numbers	Count backwards in 3s from 147…144, 141, 138	*138, 141, 144,...*
,_,_,_ 180, 177, 173						
162, 165, 168,_,_,_						
150, 147, 143 ,_,_,_						

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

Term 1 Lesson 38: Number patterns in 3s

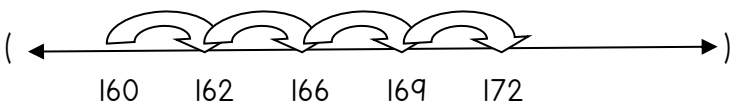
Classwork

1. Complete the pattern:
   a) 93, 96, 99, (102, 105, 108)
   b) 69, 66, 63, (60, 57, 54)
   c) 102, 105, 108, (111, 114, 117)
   d) (159, 162, 165), 168, 171, 174
   e) 150, (153, 156, 159), 162

2. Which numbers between 40 and 60 belong to both the 2s and the 3s pattern?
   (42, 48, 54)
3. Copy and underline the numbers do not belong to the patterns.
   a) 165, 185, 125, 155, 195, 153, 145 (165, 185, 125, 155, 195, <u>153</u>, 145)
   b) 33, 21, 28, 27, 30, 36, 24 (33, 21, <u>28</u>, 27, 30, 36, 24)
   c) 80, 100, 20, 140, 60, 120, 160, 40, 150 (80, 100, 20, 140, 60, 120, 160, 40, <u>150</u>)

Homework

1. Show the following numbers with jumps on a number line:
   160, 163, 166, 169, 172.



2. Complete the pattern:
   a) 127, 130, 133,(136, 139, 142)
   b) 108, 105, 102, (99, 96, 93)
   c) (207, 204, 201), 198, 195, 192
   d) 38, 40, 42, (44, 46, 48)
   e) 140, (142, 144, 146), 148

Lesson 39: Number patterns in 4

CAPS Topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 2.2 Number patterns

Lesson Vocabulary: Number patterns and fours, forwards , backwards, jumps

Prior knowledge
In Grade 2 the learners should have learnt how to:

- work with number sequences up to 200 by counting forwards and backwards,
- copy, extend, describe and create own number patterns.

Assessment
Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 3s from any number between100 and 400 .
- Count backwards in 3s from any number between100 and 200 .
- Count 5 steps forwards in 4s from 20. How far did you count? (40)

Mental maths activity - 10 minutes
Calculate the following:

	Calculate the following:	Answer		Calculate the following:	Answer
1.	4 x 10 =	40	6.	40 ÷ 4.= ...	10
2.	4 x ...= 40	10	7.	40 ÷10 = ...	4
3.	...x 4 =40	10	8.	4 x 10 =	40
4.	40 ÷...= 4	10	9.	Half of 40	20
5.	... ÷ 4.= 10	40	10.	Double 40	80

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework

3. Lesson content – concept development – 30 minutes

Resources: 100-200 Number board

DBE workbook activities relevant to this lesson:

- Worksheet 29 question 1d (p 66)
- Worksheet 58 (pgs 125)

Concepts:

- Copy and extend and describe number sequences of 4 between 0 and 200.

Remediation: Use a number board up to 100. Ask the learners to place a counter on 4. Ask learners to add on four and place a counter on the next number. Continue until 40. Ask the learners to describe the pattern? Now ask them to count aloud but this time to listen to themselves counting and look out for a sound pattern. Ask them to fill the number board with counting in fours without counting in ones this time.

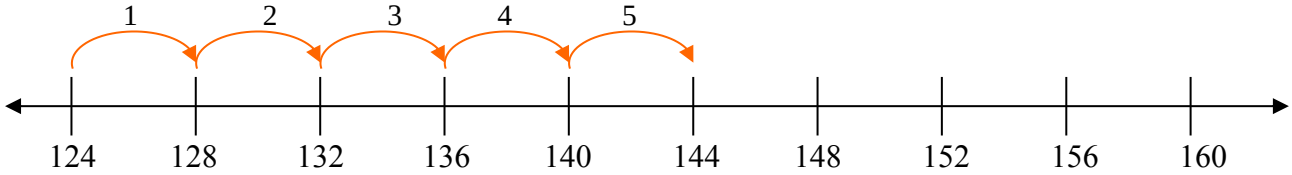
Enrichment: See Enrichment Activity Cards

Activity 1:
Give learners a 1–200 number board. Ask learners to place a counters on 4, 8, 12, 16 and 20 and to extend the pattern up to 200. Ask them if this pattern reminds them about any other patterns they have already done? (Some learners may realize the relationship to the 2's pattern.).
Ask learners to remove the counters from their number boards. Ask questions like these based on counting in fours

- If you are counting forwards what numbers comes after 156? (160, 164, 168, …)
- If you are counting backwards what number after 132? (128, 124, 120,….)

Draw the following number line on the board. Tell the learners that they are going to count in fours again, but this time on the number line. Write number 124 below the number line. Ask the children to count on in fours and as they do so you write down the numbers for the intervals below the marking. Now ask the children to count again while you draw the jumps.

Invite a learner to come to the board and show you how many jumps there are from *124 to144.* (5). The learner will draw and count the jumps on the numberline. Ask : *Did you count the jumps forwards or backwards?* (forwards).



Also ask how many jumps from 160 to 132 (7 jumps backwards), from 136 to 152 (4 jumps forwards). Do more examples if necessary.

Activity 2: Use this table in the same way as explained in Lesson 37.

Number patterns	**What pattern do you notice?**	**How did you work that out?**	**Are the numbers moving forwards or backwards?**	**Which part is missing?**	**How would you complete the pattern?**	**What are the missing numbers**
120,_,_,_136	4s pattern.	There are 4 jumps from 120 to 136. The size of the 4 jumps is 16. So each jump is 4.	forwards	The middle three numbers	Fill in the numbers that come after 120 when I count forwards in 10s	124, 128, 12
153,_,_,_, 165						

Activity 3:
Ask learners to write down all the numbers in the 2s pattern and the 4s patterns starting from 40 between 40 and 60. (40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60; AND 40, 44, 48, 52, 56, 60)
Now find all the numbers between 40 and 60 that belong to the both patterns. Do this by looking at every number in the 2s pattern to see if there is a match with a number in the 4s pattern. (the following numbers are in both patterns: 40, 44, 48, 52, 56, 60)

Write the following numbers on the board: 40, 44, 48, 50, 52, 56, 60
Ask: *Is there any number that does not belong in the pattern?*(50) *How do you know?* (All other numbers in the2s pattern and the 4s patterns. 50 is only in the 2s pattern.)

4. Classwork activity – 25 minutes (See next page)

5. Homework activity – 5 minutes (See next page)

6. Reflection on lesson

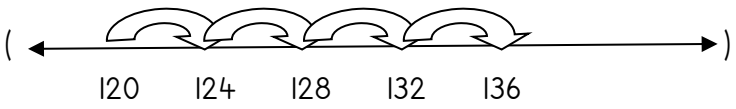
Term 1 Lesson 39: Number patterns in 4s

Classwork

1. Extend the pattern:
   a) 112, 116, 120, (124, 128, 132)
   b) 116, 112, 108, (104, 100, 96)
   c) (148, 152, 156), 160, 164, 168
   d) 124, (128, 132, 136), 140
2. Which numbers between 20 and 40 belong to the following patterns?
   a) the 2 s pattern and the 4s pattern (24, 28, 32, 36)
   b) the 2 s pattern and the 3s pattern (24, 30, 36)
   c) the 3 s pattern and the 4s pattern (24, 36)

Homework

1. Show the following with jumps/hoops on a number line: 120, 124, 128, 132, 136



2. Complete the pattern:
   a) 92, 94, 96, (98, 100, 102)
   b) 200, 196, 192, (188, 184, 180)
   c) 100, 104, 108, (112, 116, 120)
   d) (100, 104, 108), 112, 116, 120
   e) 38, 40, 42, (44, 46, 48)
   f) 148, (144, 140, 136), 132

Lesson 40: Geometric Patterns

CAPS Topics: 1.16 Mental mathematics, 2.1 Geometric patterns

Lesson Vocabulary: geometric patterns, sequences, repeat,

Prior knowledge

In Grade 2 the learners should have learnt how to:

- Copy, extend describe in words simple patterns made with physical objects and with drawings of lines, shapes or objects
- Create own geometric patterns with physical objects and drawings of lines, shapes or objects
- Identify, describe in words and copy geometric patterns in nature, from everyday life and from our cultural heritage.

Assessment

Refer to the assessment schedule for today's assessment activity.

1. Mental maths

Counting - 5 minutes

- Count forwards in 4s from any number between100 and 400 .
- Count backwards in 4s from any number between100 and 200 .
- Count 10 steps forwards in 4s from 50. How far did you count? (90)
- Count 3 steps backwards in 4s from 20. How far did you count? (8)

Mental maths activity - 10 minutes

Which number is bigger?

		Answer			Answer
1.	156 or 165	165	6.	189 or 198	198
2.	25 or 52	52	7.	165 or 166	166
3.	79 or 97	97	8.	155 or 154	155
4.	121 or 120	121	9.	176 or 167	176
5.	189 or 190	190	10.	99 or 199	199

2. Homework/Corrections – 15 minutes

Reflection / remediation based on previous day's work / homework

3. Lesson content – concept development – 30 minutes

Resources:. 4 sets of 4-5 identical items eg. pictures of 4 apples, 4 oranges, 4 pears and 4 bananas per group

DBE workbook activities relevant to this lesson:

- Worksheet 9 (p 21) & Worksheet 47 (p 109)

Concepts:

- Copy, extend describe in words simple patterns made with physical objects and with drawings of lines, shapes or objects
- Create own geometric patterns with physical objects and drawings of lines, shapes or objects

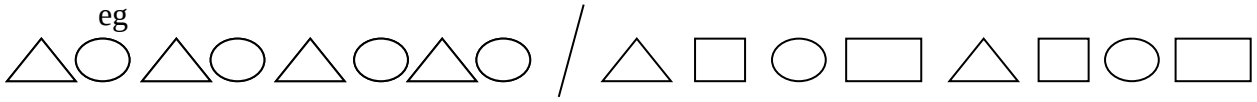
Remediation:

Begin with two concrete items eg. ruler, pen, ruler, pen, ……. Only once this has been established introduce a third item. Once the learner has established the idea of repeating patterns with three items, introduce variations in size and finally repetitive patterns with the same item in different orientations.

Enrichment: See Enrichment Activity Cards

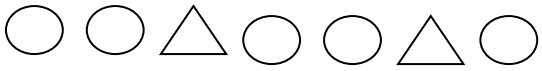
Activity 1: Create and describe pattern
Learners work in fours. Give each group 4 sets of 4-5 sets of identical items eg.
4 triangles, 4 squares, 4 rectangles and 4 circles.

- Learners take turns to place these objects in repetitive patterns using 2 or more types of items eg



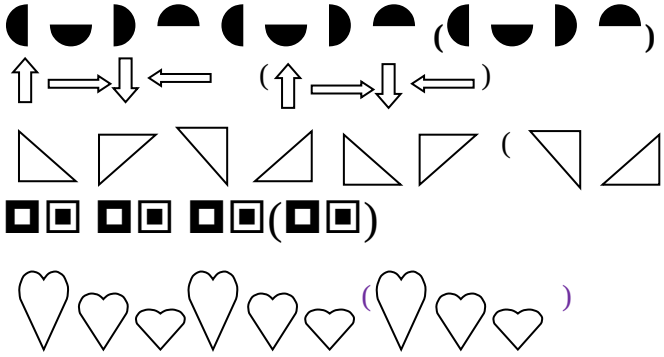
- After the learner has created the pattern, he/she describes it to the group.
- The whole group copies the pattern onto their whiteboards.

Activity 2: Extend patterns
Draw this pattern on the board.



Ask *What is the nest shape in the pattern?* (Circle) *How do you know?* (because the pattern goes circle, circle triangle. After the first circle we need another one)
Invite a learner to draw the shape in the correct place on the board.
What comes after the circle? (triangle)
Invite a learner to draw the shape in the correct place on the board.
Who can give us the next two shapes? (circle, circle)
Again invite a learner to draw the shape in the correct place on the board.

Now draw each of the following patterns on the board and through questioning and interacting get the learners to complete the patterns by drawing at least three more items on the board.



4. Classwork activity – 25 minutes (See next page)

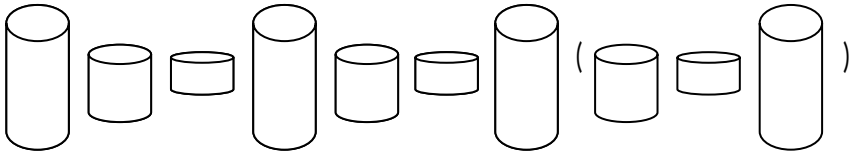
5. Homework activity – 5 minutes (See next page)

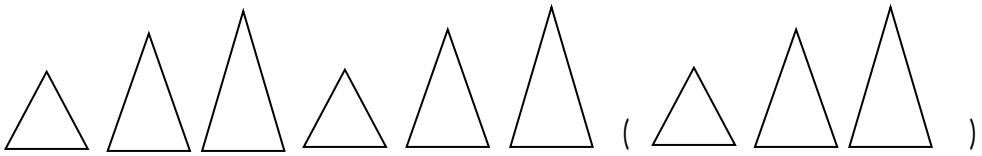
6. Reflection on lesson

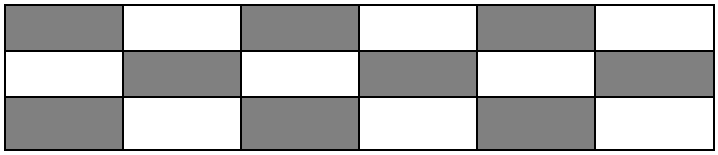
Term one Lesson 40: Geometric Patterns

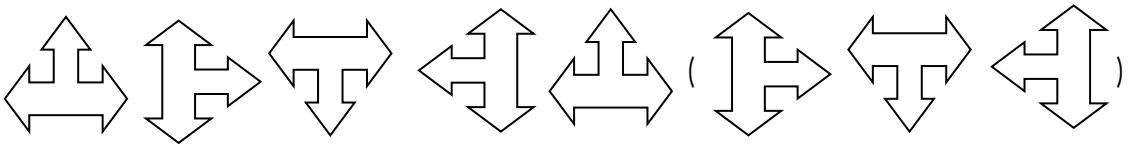
Classwork

Copy and extend these patterns.

1. 

2. 

3. 

4. 

Homework

(Learner answers will vary.)

1. Find 3 different objects (2 of each) in your kitchen, like glasses, plates and bowls.
2. Use your objects to make a pattern.
3. Draw and extend your pattern in your book.

MENTAL MATHS CHALLENGE CARDS

Each term there will be a set of eight mental maths challenge cards. If you make them into cards and collect them over the course of 2014 you will have a set of one card per teaching week for a year.

Use of the mental maths challenge cards

Once a week learners should do mental maths in written form so that there is some record of your daily mental maths activities. You can use the **Mental Maths Challenge Cards** for this purpose.

Learners should not use concrete material to work out the answers in mental maths. If learners need to, let them use their fingers as a concrete aid during mental maths, but make a note of who they are and then spend time with them during remediation to help them with the basic number and operation skills. Mental maths skills improve hugely from Grade 1 to Grade 3. In Grade 1 learners might only manage 5 questions, especially when they have to write the answers, but by Grade 3 learners should manage 10 questions with written answers easily.

The set of cards in Term 1 for Grade 1 has only five questions per card. All other cards have ten questions as will the Grade 1 cards from Term 2.

Maths Challenge Card 1

1) 9 – 2 =
2) 13 – 5 =
3) 20 – 2 =
4) 11 – 4 =
5) 18 – 10 =
6) 19 – 11 =
7) 20 – 10 =
8) 13 – 2 =
9) 14 – 5 =
10) 20 – 11 =

Maths Challenge Card 2

1) □ + 70 = 100
2) □ + 50 = 100
3) 20 + □ = 100
4) 40 + □ = 100
5) 60 + □ = 100
6) 90 + □ = 100
7) □ + 30 =100
8) □ + 80 = 100
9) □ + 20 + 100
10) 10 + □ = 100

Maths Challenge Card 3

1) 10 + 10 =
2) 100 + 100 =
3) 20 + 20 =
4) 40 + 40 =
5) 30 + 30 =
6) 14 ÷ 2 =
7) 140 ÷ 2 =
8) 12 ÷ 2 =
9) 120 ÷ 2 =
10) 400 ÷ 2 =

Maths Challenge Card 4

1) 54 + 11 =
2) 47 + 11 =
3) 27 + 11 =
4) 44 + 11 =
5) 28 + 11 =
6) 57 + 11 =
7) 75 + 11 =
8) 22 + 11 =
9) 88 + 11 =
10) 14 + 11 =

Maths Challenge Card 1 : Answers

Subtraction number range 0 – 20

1) 7
2) 8
3) 18
4) 7
5) 8
6) 8
7) 10
8) 11
9) 9
10) 9

Maths Challenge Card 2 : Answers

Addition of multiples of 10 to 100

1) 30
2) 50
3) 80
4) 60
5) 40
6) 10
7) 70
8) 20
9) 80
10) 90

Maths Challenge Card 3 : Answers

Doubling and halving

1) 20
2) 200
3) 40
4) 80
5) 60
6) 7
7) 70
8) 6
9) 60
10) 200

Maths Challenge Card 4 : Answers

Add 10 plus 1 (breaking down 11)

1) 65
2) 58
3) 38
4) 55
5) 39
6) 68
7) 86
8) 33
9) 99
10) 25

Maths Challenge Card 5

1) 54 – 11 =
2) 47 – 11 =
3) 27 – 11 =
4) 44 – 11 =
5) 28 – 11 =
6) 57 – 11 =
7) 75 – 11 =
8) 22 – 11 =
9) 88 – 11 =
10) 14 – 11 =

Maths Challenge Card 6

1) 15 + □ = 20
2) 8 + □ = 20
3) 7 + □ = 20
4) 16 + □ = 20
5) 14 + □ = 20
6) 13 + □ = 20
7) 12 + □ = 20
8) 10 + □ = 20
9) 19 + □ = 20
10) 17 + □ = 20

Maths Challenge Card 7

1) 10 + 10 =
2) 10 + 11 =
3) 10 + 9 =
4) 20 + 20 =
5) 20 + 19 =
6) 20 + 21 =
7) 50 + 50 =
8) 50 + 49 =
9) 50 + 51 =
10) 100 + 101 =

Maths Challenge Card 8

1) 8, 10, 12, _____, _____, _____
2) 0, 2, 4, _____, _____, _____
3) _____, _____, _____ 6, 4, 2
4) _____, _____, _____ 12, 14, 16
5) 20, 18, 16, _____, _____, _____
6) 10, 20, 30, _____, _____, _____
7) _____, _____, _____, 80, 90, 100
8) _____, _____, _____ 60, 50, 40
9) 30, _____, _____, _____, 70
10) 60, _____, _____, _____, 20

Maths Challenge Card 5 : Answers

Subtract 10 plus 1 (breaking down 11)

1) 43
2) 36
3) 16
4) 33
5) 17
6) 46
7) 64
8) 11
9) 77
10) 3

Maths Challenge Card 6 : Answers

Addition number range 0 – 20

1) 5
2) 12
3) 13
4) 4
5) 6
6) 7
7) 8
8) 10
9) 1
10) 3

Maths Challenge Card 7 : Answers

Add

1) 20
2) 21
3) 19
4) 40
5) 39
6) 41
7) 100
8) 99
9) 101
10) 201

Maths Challenge Card 8 : Answers

Counting in 2s and 10s

1) 14, 16, 18
2) 6, 8, 10
3) 12, 10, 8
4) 6, 8, 10
5) 14, 12, 10
6) 40, 50, 60
7) 50, 60, 70
8) 90, 80, 70
9) 40, 50, 60
10) 50, 40, 30

ENRICHMENT ACTIVITY CARDS

The enrichment card set that follows completes the set of 148 GPLMS enrichment cards that have been published on a term-by-term basis in 2013 and 2014. You should retain the cards published in 2013 as they will not be republished in 2014.

Use of the enrichment activity cards

Optional as required.

These cards include activities that you can use for enrichment opportunities for learners who have completed the lesson activities ahead of the rest of the class. Learners should work on these cards independently or with their peers who have also completed the classwork. You may need to explain some of the activities to the learners who use them. You should remind them to ask you questions about any of the enrichment activities that they are doing so that you can guide them as necessary.

You should photocopy the enrichment cards, paste them onto cardboard and laminate them (if possible) so that they can be used as a resource, not only this year but in the future as well.

Put the cardboard, laminated cards into a box in a set place in your classroom so that learners know where to find them. These cards are for all learners and do not have to be used in a particular order. Learners should keep a record of the cards that they have done, so that they continue to choose a new card each time they go to the box. Learners must be taught to replace the cards in numeric order in the box, so that everyone who lookf for cards can easily find the one they want to use.

Enrichment Activity 1.1

Complete the Magic Squares. All the rows need to add up to the number indicated at the top of each square.

16

	2	
3	5	
		4

20

		0
	4	
	6	

25

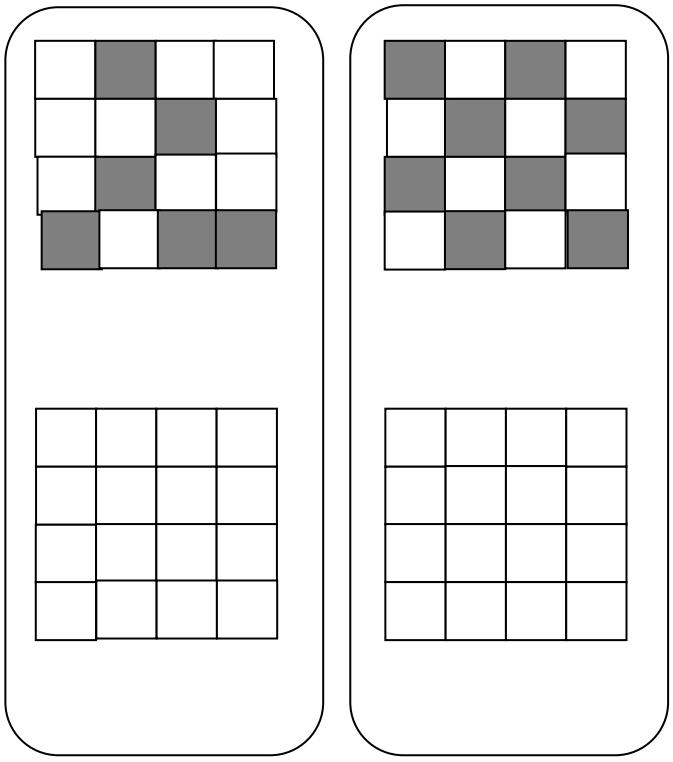
	9	6
	4	
2		11

29

		13
12	5	
	13	

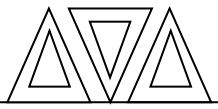
Enrichment Activity 1.2

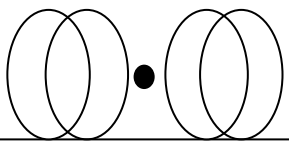
Colour the squares at the bottom to match the ones at the top.

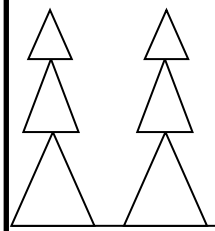


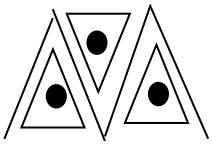
Enrichment Activity 1.3

Complete the patterns:









Enrichment Activity 1.4

Complete the patterns:

4	3	4					

9	1	2	9				

6	9	9	3	6			

2	4	3	2	4			

Enrichment Answer 1.1

Complete the Magic Squares. All the rows need to add up to the number indicated at the top of each square.

16

10	2	4
3	5	8
3	9	4

20

10	10	0
2	4	14
8	6	6

25

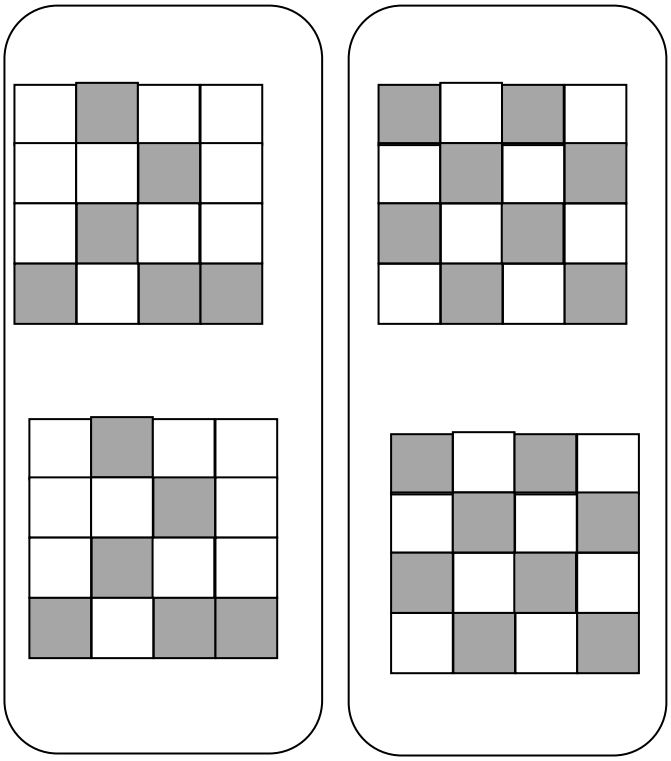
10	9	6
13	4	8
2	12	11

29

5	11	13
12	5	12
12	13	4

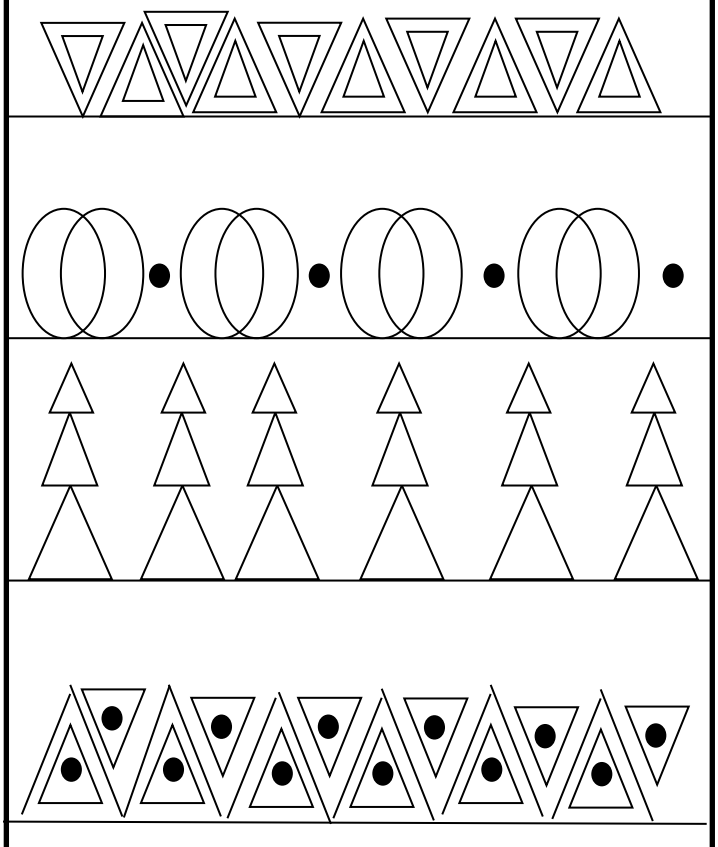
Enrichment Answer 1.2

Colour the squares at the bottom to match the ones at the top.



Enrichment Answer 1.3

Complete the patterns:



Enrichment Answer 1.4

Complete the patterns:

4	3	4	3	4	3	4	3

9	1	2	9	1	2	9	1

6	9	9	3	6	9	9	3

2	4	3	2	4	3	2	4

Enrichment Activity 2.1

Measure with your ruler:

How long is your thumb? _____cm

How long is your ring finger? _____cm

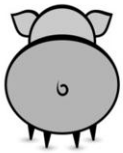
Measure your pencil? _____cm

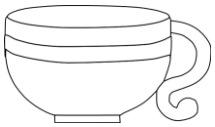
Draw a line that is 5cm shorter than your ring finger? _____cm

Draw a line that is 5cm longer than your thumb? _____cm

Enrichment Activity 2.2

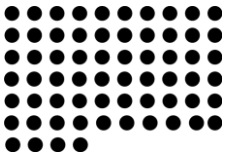
Circle the pictures that you see from the top blue, and the ones you see from the front, red.





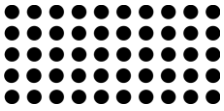
Enrichment Activity 2.3

Write how many tens and units there are in each group.



____ tens. _____ones/units.

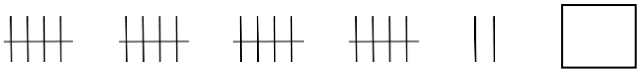
____ tens. ____ ones/units.



____ tens. ____ones/units.

Enrichment Activity 2.4

How many sticks are there?



Draw 48 sticks in the same way:

Enrichment Answer 2.1

Measure with your ruler:
Answers will vary

How long is your thumb? _____cm

How long is your ring finger? _____cm

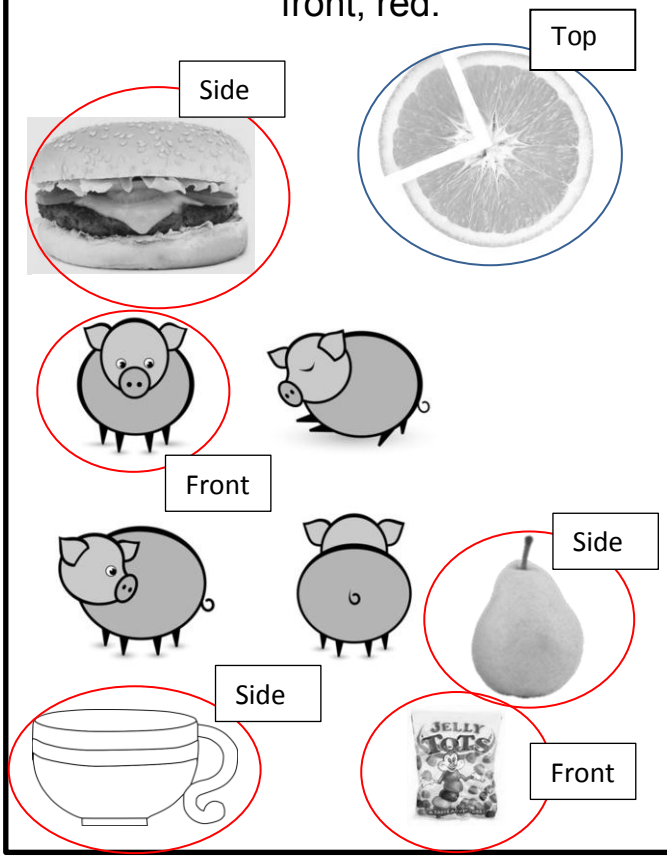
Measure your pencil? _____cm

Draw a line that is 5cm shorter than your ring finger? _____cm

Draw a line that is 5cm longer than your thumb? _____cm

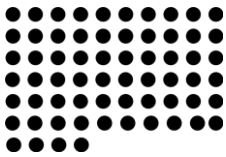
Enrichment Answer 2.2

Circle the pictures that you see from the top blue, and the ones you see from the front, red.



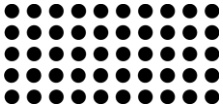
Enrichment Answer 2.3

Write how many tens and units there are in each group.



6 tens. 4 ones/units.

7 tens. 3 ones/units.



5 tens. 0 ones/units.

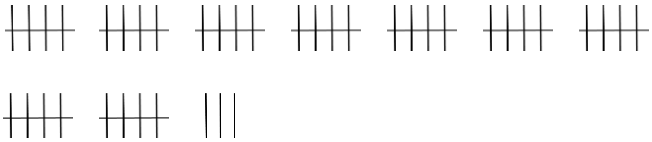
Enrichment Answer 2.4

How many sticks are there?

22

33

Draw 48 sticks in the same way:



Enrichment Activity 3.1

Match the number with the number name.

21	Forty-three
43	Twenty-nine
45	Fifty-one
29	Seventy- six
58	Twenty-one
51	Forty-five
54	Sixty-seven
67	Fifty-four
76	Fifty-eight

Enrichment Activity 3.2

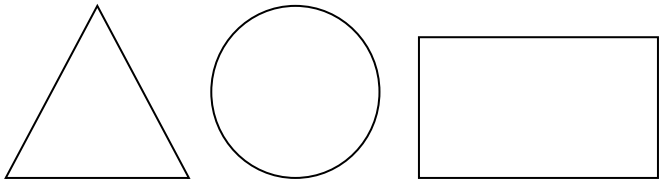
Colour two numbers in each row which add up to 50.

19	9	3	31	7
12	48	41	10	9
31	12	38	24	30
5	9	35	45	10

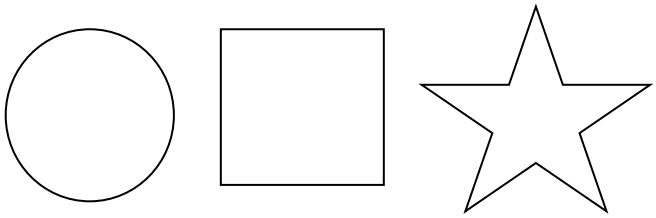
Enrichment Activity 3.3

Divide these shapes into:

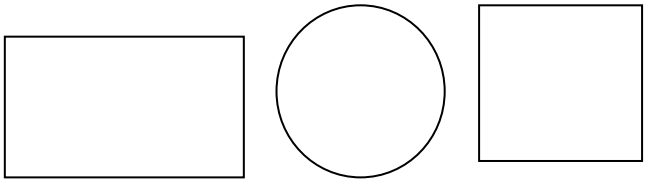
Halves



Quarters

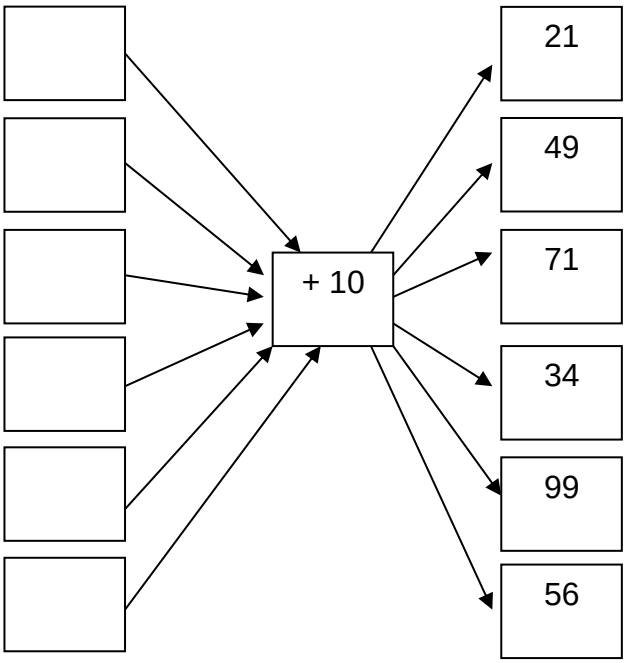


Thirds



Enrichment Activity 3.4

Complete the following:



Enrichment Answer 3.1

Match the number with the number name.

21	Forty-three
43	Twenty-nine
45	Fifty-one
29	Seventy- six
58	Twenty-one
51	Forty-five
54	Sixty-seven
67	Fifty-four
76	Fifty-eight

Enrichment Answer 3.2

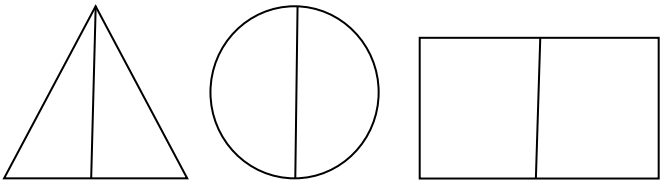
Colour two numbers in each row which add up to 50.

19	9	3	**31**	7
12	48	**41**	10	**9**
31	**12**	**38**	24	30
5	9	35	**45**	10

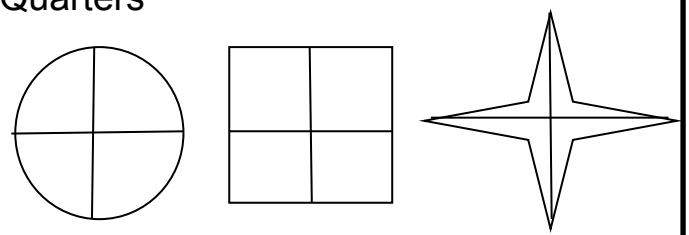
Enrichment Answer 3.3

Divide these shapes into:

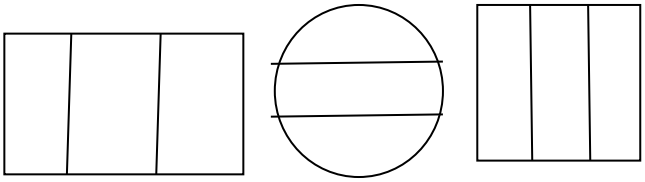
Halves



Quarters

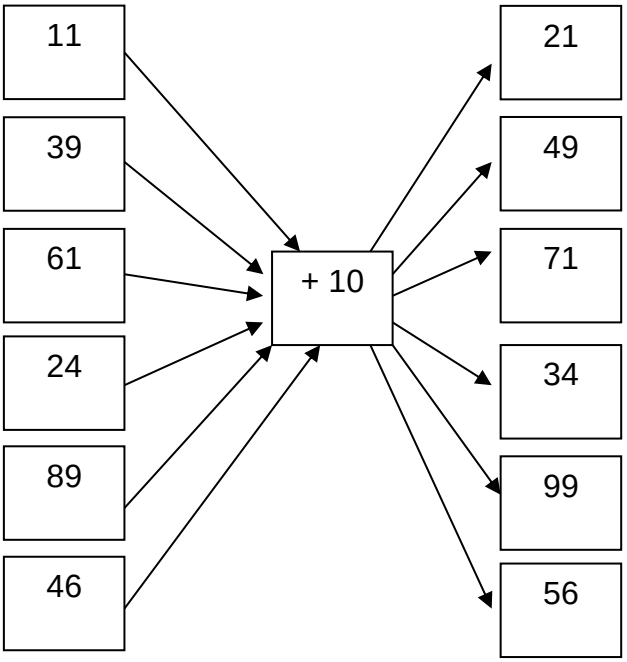


Thirds



Enrichment Answer 3.4

Complete the following:



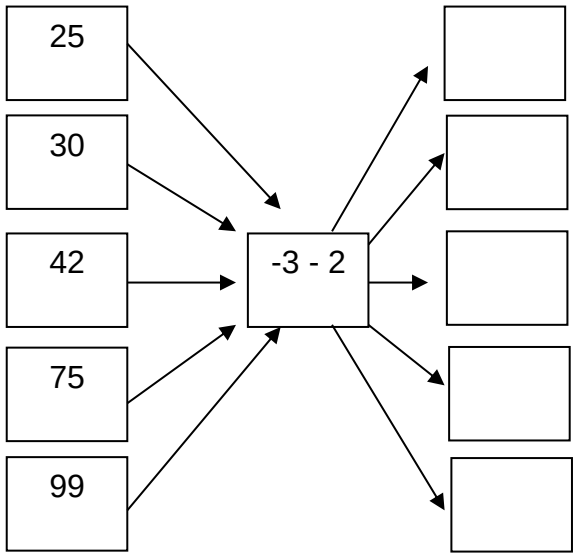
Enrichment Activity 4.1

Colour the two numbers that add up to the given answer.

9	21	13	+	17	11	19	=	40
41	12	29	+	19	11	38	=	50
14	9	8	+	15	21	22	=	30
13	6	2	+	7	9	12	=	20
10	21	37	+	23	40	33	=	60

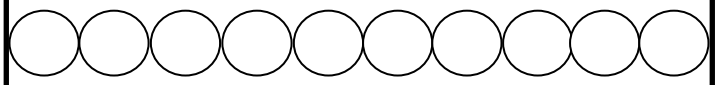
Enrichment Activity 4.2

Complete the following:



Enrichment Activity 4.3

Colour the circles:



Colour the first circle red.

Colour the last circle blue.

Colour the eighth circle green.

Colour the ninth circle yellow.

Colour the sixth circle pink.

Colour the third circle black.

Colour the second circle orange.

Enrichment Activity 4.4

Can you solve these problems?

1. Mom had R48. She bought a cake for R45 and a sweet for R1. How much money does she have left?

2. Thandi had 80c. She spend 25c on sweets and 18c on juice. How much money does she have left?

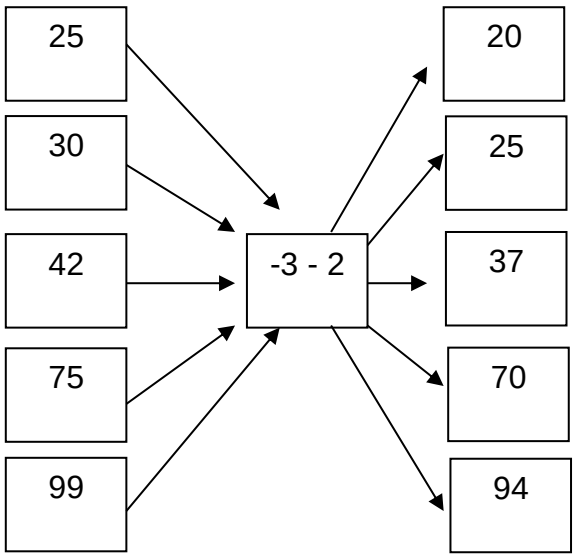
Enrichment Answer 4.1

Colour the two numbers that add up to the given answer.

9	21	13	+	17	11	19	=	40
41	12	29	+	19	11	38	=	50
14	9	8	+	15	21	22	=	30
13	6	2	+	7	9	12	=	20
10	21	37	+	23	40	33	=	60

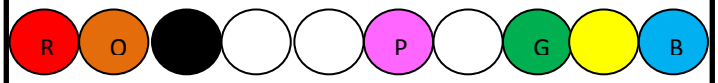
Enrichment Answer 4.2

Complete the following:



Enrichment Answer 4.3

Colour the circles:



Colour the first circle red.

Colour the last circle blue.

Colour the eighth circle green.

Colour the ninth circle yellow.

Colour the sixth circle pink.

Colour the third circle black.

Colour the second circle orange.

Enrichment Answer 4.4

Can you solve these problems?

1. Mom had R48. She bought a cake for R45 and a sweet for R1. How much money does she have left?

   R2

2. Thandi had 80c. She spends 25c on sweets and 18c on juice. How much money does she have left?

   R37c

Enrichment Activity 5.1

Make a tick (√) if the answer is correct.

Make a cross (x) if the answer is wrong.

double 40 is 80	
half of 120 is 70	
double 90 is 180	
half of 200 is 100	
half of 160 is 60	
double 70 is 140	
double 60 is 120	
half of 140 is 80	

Enrichment Activity 5.2

Look at these patterns.

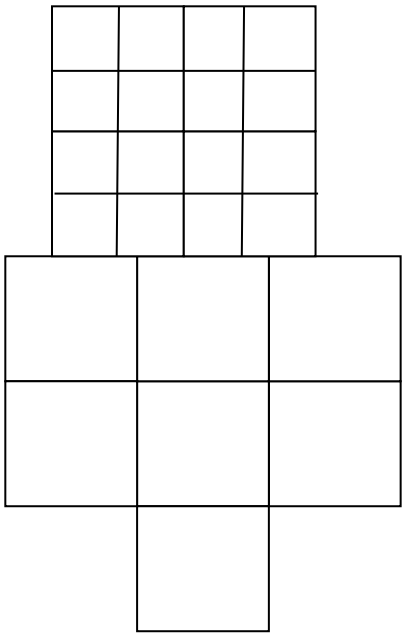
Make a tick (√) if the pattern is correct.

Make a cross (x) if the pattern is wrong.

13*15*17*19*21*23*25*27	
82*84*86*90*92*94*96	
110*120*130*140*160*170	
85*90*95*100*125*130*135	
11*12*13*17*18*19*20*21	

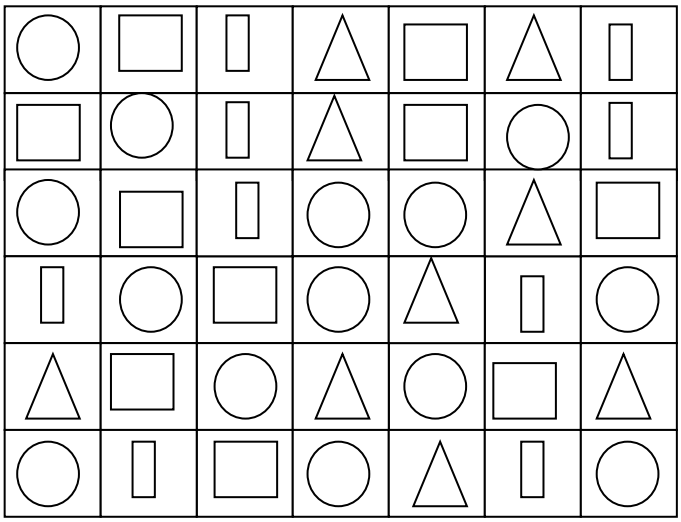
Enrichment Activity 5.3

How many squares can you count?



Enrichment Activity 5.4

Find the shapes.



How many?

triangles?_____ rectangles?____

circles?_____ squares?_____

Enrichment Answer 5.1

Make a tick (√) if the answer is correct.

Make a cross (x) if the answer is wrong.

double 40 is 80	√
half of 120 is 70	x
double 90 is 180	√
half of 200 is 100	√
half of 160 is 60	x
double 70 is 140	√
double 60 is 120	√
half of 140 is 80	x

Enrichment Answer 5.2

Look at these patterns.

Make a tick (√) if the pattern is correct.

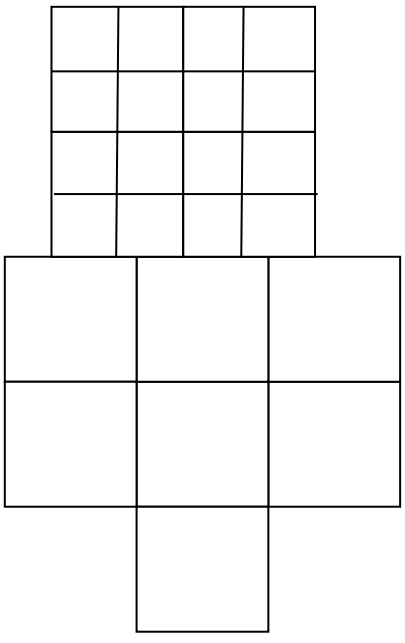
Make a cross (x) if the pattern is wrong.

13*15*17*19*21*23*25*27	√
82*84*86*90*92*94*96	x
110*120*130*140*160*170	x
85*90*95*100*125*130*135	x
11*12*13*17*18*19*20*21	x

Enrichment Answer 5.3

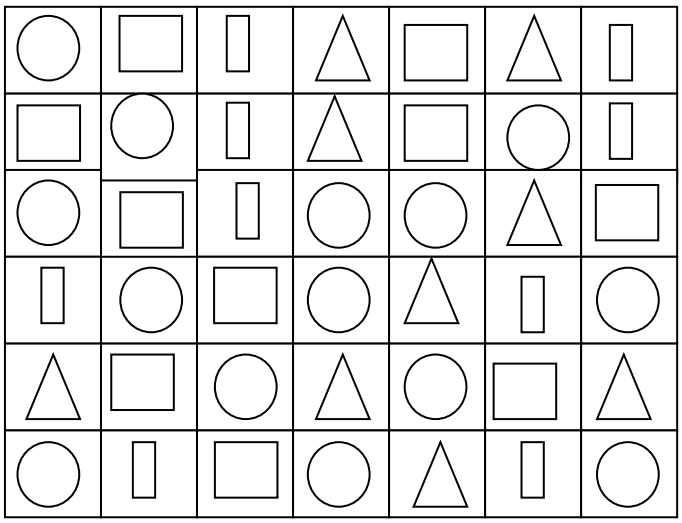
How many squares can you count?

31 squares



Enrichment Answer 5.4

Find the shapes.



How many:

triangles? 9

rectangles? 9

circles? 14

squares? 10

Enrichment Activity 6.1

Complete the following:

10 more than 18 is _____

7 less than 20 is_____

12 less than 19 is _____

24 more than 16 is _____

31 more than 17 is _____

18 more than 15 is _____

15 more than 18 is _____

12 less than 20 is _____

41 more than 13 is _____

Enrichment Activity 6.2

Complete the following:

Double 4 plus 30 is _____

Double 6 plus 21 is _____

Double 5 plus 15 is _____

Double 7 plus 33 is _____

Double 9 plus 21 is _____

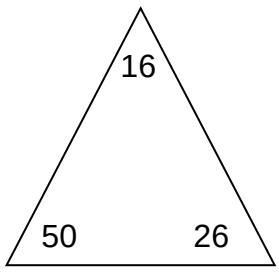
Enrichment Activity 6.3

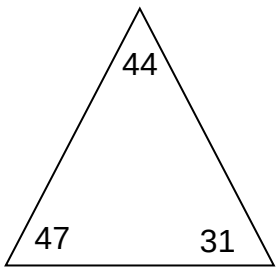
Complete the pattern:

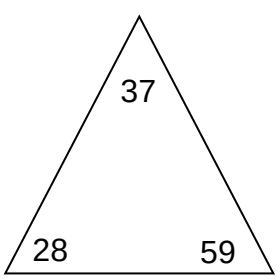
59	64	69						
74	77	80						
69	65	61						
200	190							

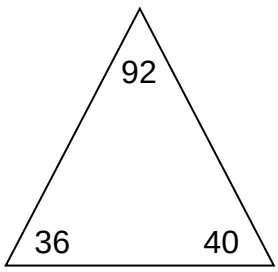
Enrichment Activity 6.4

What is the value of each triangle?
Write the answer in the square.









Enrichment Answer 6.1

Complete the following:

10 more than 18 is 28

7 less than 20 is 13

12 less than 19 is 7

24 more than 16 is 40

31 more than 17 is 48

18 more than 15 is 33

15 more than 18 is 33

12 less than 20 is 8

41 more than 13 is 54

Enrichment Answer 6.2

Complete the following:

Double 4 plus 30 is 38

Double 6 plus 21 is 33

Double 5 plus 15 is 25

Double 7 plus 33 is 47

Double 9 plus 21 is 39

Enrichment Answer 6.3

Complete the pattern:

59	64	69	74	79	84	89	94	99

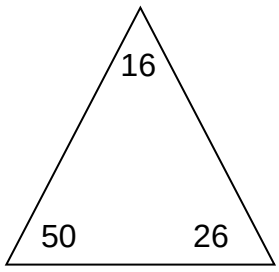
74	77	80	83	86	89	92	95	98

69	65	61	57	53	49	45	41	37

200	190	180	170	160	150	140	130	120

Enrichment Answer 6.4

What is the value of each triangle?
Write the answer in the square.



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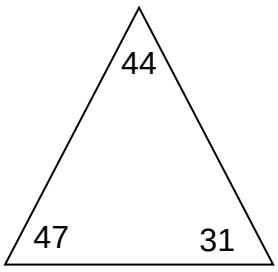
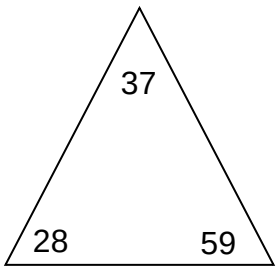


122



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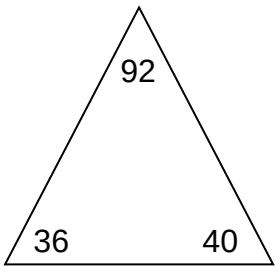

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Enrichment Activity 7.1

Write in the answer using numbers.

Sixty-one plus thirteen equals_____

Forty-eight plus twenty-one equals____

Thirty-three plus thirteen equals_____

Sixty take away fifteen equals _____

One hundred take away fifteen equals_____

Twenty-nine plus forty-one equals_____

Enrichment Activity 7.2

Who am I?

I am the day before Monday.
_____

I am the day between Friday and Sunday. _____

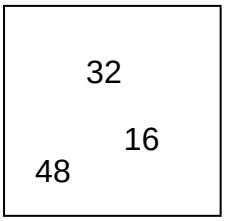
I am the first day of the weekend.
_____

I am the first day of the week.
_____

I am the day before Wednesday.
_____

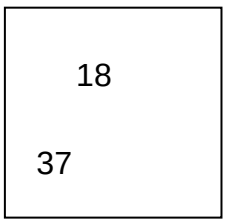
Enrichment Activity 7.3

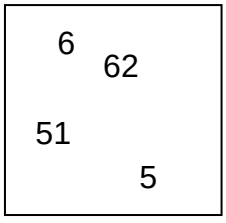
Number sentences.
Use the numbers in the boxes to make sums.



___ + ___ = ____

_____ + _____ = ____





___ + ___ + ___ = ____

Enrichment Activity 7.4

Who am I?

I am the month before May. _____

I am the month after June. _____

I am the month between October and December. _____

I am the first month of Spring.
_____

I am the last month of the year.
_____

I am the tenth month. _____

Enrichment Answer 7.1
Write in the answer using numbers.

Sixty-one plus thirteen equals 74

Forty-eight plus twenty-one equals 69

Thirty-three plus thirteen equals 46

Sixty take away fifteen equals 45

One hundred take away fifteen equals 85

Twenty-nine plus forty-one equals 70

Enrichment Answer 7.2
Who am I?

I am the day before Monday. Sunday

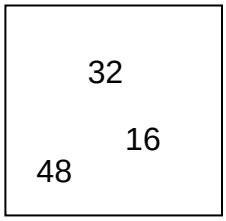
I am the day between Friday and Sunday. Saturday

I am the first day of the weekend. Saturday

I am the first day of the week. Monday

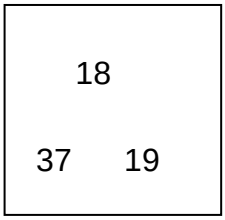
I am the day before Wednesday. Tuesday

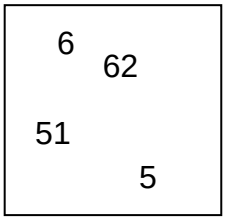
Enrichment Answer 7.3
Number sentences.
Use the numbers in the boxes to make sums.



16 + 32 = 48

18 + 19 = 37





51 + 6 + 5 = 62

Enrichment Answer 7.4
Who am I?

I am the month before May. April

I am the month after June. July

I am the month between October and December. November

I am the first month of Spring. September

I am the last month of the year. December

I am the tenth month. October

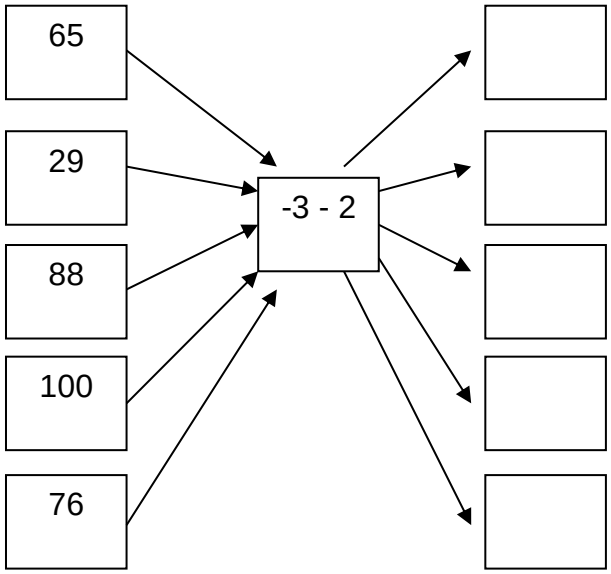
Enrichment Activity 8.1

Colour the two numbers that add up to the given answer.

46	60	31	+	1	0	32	=	63
294	15	23	+	82	77	29	=	90
4	48	22	+	43	11	12	=	59
31	26	29	+	16	8	92	=	47
40	60	20	+	44	11	51	=	71

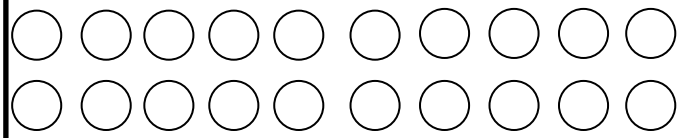
Enrichment Activity 8.2

Complete the following:



Enrichment Activity 8.3

Colour the circles:



Colour the first circle red.

Colour the last circle blue.

Colour the eighteenth circle green.

Colour the ninth circle yellow.

Colour the sixteenth circle pink.

Colour the third circle black.

Colour the fifteenth circle orange.

Colour the eleventh circle brown.

Enrichment Activity 8.4

Can you solve these problems?

1. Mom had R58. She bought a cake for R45 and a sweet for R12. How much money does she have left?

2. Thandi had 520c. She spends 405c on sweets and 80c on juice. How much money does she have left?

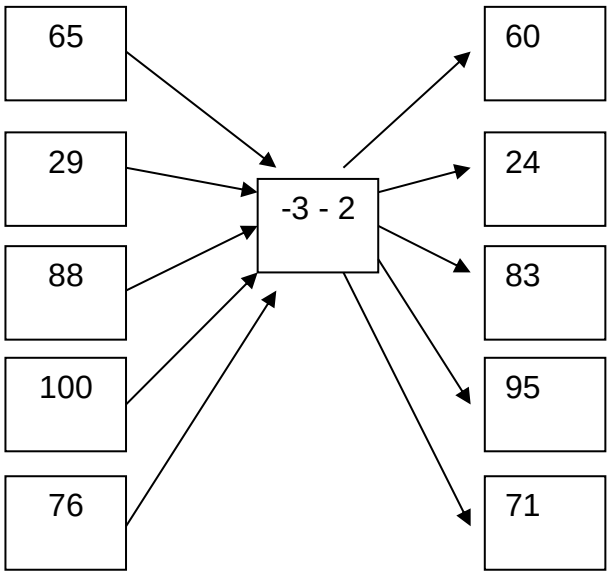
Enrichment Answer 8.1

Colour the two numbers that add up to the given answer.

46	60	31	+	1	0	32	=	63
294	15	23	+	82	77	29	=	100
4	48	22	+	43	11	12	=	59
31	26	29	+	16	8	92	=	47
40	60	20	+	44	11	51	=	71

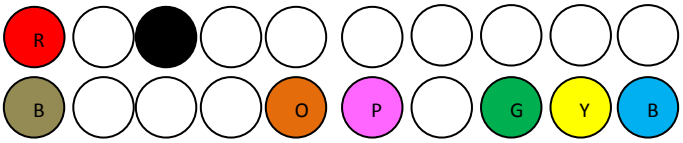
Enrichment Answer 8.2

Complete the following:



Enrichment Answer 8.3

Colour the circles:



Colour the first circle red.

Colour the last circle blue.

Colour the eighteenth circle green.

Colour the ninth circle yellow.

Colour the sixteenth circle pink.

Colour the third circle black.

Colour the fifteenth circle orange.

Colour the eleventh circle brown.

Enrichment Answer 8.4

Can you solve these problems?

1. Mom had R58. She bought a cake for R45 and a sweet for R12. How much money does she have left?

   R1

2. Thandi had 520c. She spends 405c on sweets and 80c on juice. How much money does she have left?

   35c