GRADE 1

Mathematics

Teacher Toolkit:
CAPS Aligned Lesson Plans and Resources

English / isiXhosa

TERM 2

A MESSAGE FROM THE NECT

NATIONAL EDUCATION COLLABORATION TRUST (NECT)

Dear Teachers

This learning programme and training is provided by the National Education Collaboration Trust (NECT) on behalf of the Department of Basic Education (DBE)! We hope that this programme provides you with additional skills, methodologies and content knowledge that you can use to teach your learners more effectively.

What is NECT?
In 2012 our government launched the National Development Plan (NDP) as a way to eliminate poverty and reduce inequality by the year 2030. Improving education is an important goal in the NDP which states that 90% of learners will pass Maths, Science and languages with at least 50% by 2030. This is a very ambitious goal for the DBE to achieve on its own, so the NECT was established in 2015 to assist in improving education.

The NECT has successfully brought together groups of people interested in education so that we can work collaboratively to improve education. These groups include the teacher unions, businesses, religious groups, trusts, foundations and NGOs.

What are the learning programmes?

One of the programmes that the NECT implements on behalf of the DBE is the 'District Development Programme'. This programme works directly with district officials, principals, teachers, parents and learners; you are all part of this programme! The programme began in 2015 with a small group of schools called the Fresh Start Schools (FSS). Curriculum learning programmes were developed for Maths, Science and Language teachers in FSS who received training and support on their implementation. The FSS teachers remain part of the programme, and we encourage them to mentor and share their experience with other teachers.

The FSS helped the DBE trial the NECT learning programmes so that they could be improved and used by many more teachers. NECT has already begun this scale-up process in its Universalisation Programme and in its Provincialisation Programme.

Everyone using the learning programmes comes from one of these groups; but you are now brought together in the spirit of collaboration that defines the manner in which the NECT works. Teachers with more experience using the learning programmes will deepen their knowledge and understanding, while some teachers will be experiencing the learning programmes for the first time.

Let's work together constructively in the spirit of collaboration so that we can help South Africa eliminate poverty and improve education!

CONTENTS

ABOUT THE LESSON PLANS AND RESOURCES

The lesson plans and resources in this book are part of the Teacher Toolkit for Mathematics Grade 1 Term 2. The other documents in the toolkit are:

- a CAPS Aligned Planner, Tracker and Assessment Resources

A variety of printable resources that you can copy for yourself and/or your learners are included at the end of the lesson plans in this book. They include:

a) **Resource sheets**: These comprise a variety of teaching and learning aids that are needed in certain lessons. The specific resource sheet, and the number of copies needed, is noted in the relevant lesson plan and in the tracker so that you can prepare them in advance.
b) **Mental mathematics challenge cards:** A pack of eight mental mathematics challenge cards (solutions are provided) is included to allow for routine weekly mental mathematics activities that you can record.
c) **Enrichment activity cards:** A pack of 32 enrichment activity cards (solutions are provided) are included for learners who complete the day's classwork activities ahead of the class.

A. About the lesson plans

The lesson plans give detailed information about how to teach a CAPS-aligned lesson every day. By following the lesson plans, you will ensure that you cover the content and assessment tasks specified in the curriculum and give your learners the best possible chance of developing the knowledge and skills required for Mathematics in this grade.

1. Curriculum alignment

The lessons are sequenced according to the topics in the CAPS and weighted according to requirements given there, and the programme of assessment is accommodated. Every lesson shows the CAPS content and skill being focussed on in the lesson.

2. Links to the DBE workbooks

Links are given in the lessons to all appropriate DBE worksheets. Note that the pages referred to are all from the 2017 edition of the DBE workbook. This changes very little from year to year, but if you use a different edition of the workbook, you should check that the worksheet on the same page in this different edition is still appropriate for your purpose.

Bilingual learner material is provided in the LoLT of the school in accordance with the Foundation Phase language policy.

3. Broad overview of the content of the lesson plans

Each lesson plan provides a set of steps to guide you in delivering the lesson. In addition, it contains learner activities that will help learners develop the concepts and skills set for the lesson. These include the required daily mental mathematics activity, whole class oral activities led by the teacher, classwork and homework activities, as well as answers for these. All the classwork and homework activities are given in the lesson plans, learners must either copy these into their books or teachers can photocopy the activity.

4. Assessment

The programme of assessment suggested in the lesson plans and tracker is adaptable and can be adjusted to comply with the CAPS as amended by Circular S1 of 2017 and provincial responses to this. The lesson plans and tracker provide a number of resources to support both formal and informal assessment in this programme, as noted below:

- Oral and practical activities which you can use to assess learners as you observe and interact with them in class are provided in the tracker. Rubrics and checklists with criteria for this assessment are

provided in the tracker, at the end of the table for the week in which the assessment is suggested.
- There is an item bank of written assessment questions, with marking memos in the tracker. Items that are relevant to a specific lesson are noted in the resources column for the lesson in the tracker.
- A complete overview of the programme of assessment for the term is given in the tracker. This shows you when it is suggested you carry out both formal (and informal) assessment tasks which are oral, practical and written. This will assist you in planning and monitoring your assessment programme.
- There is also recommended mark record sheet in the tracker. This has been drawn up to assist you as you record your marks on SA-SAMS.

5. Managing the lesson programme

A set of orientation activities on eight different topics aligned with the CAPS baseline assessment requirements is provided for the start of the term. You should use all or a selection of these activities in the first week of term before the formal teaching of the numbered lesson plans begins.

The formal curriculum for Term 2 of Grade 1 is covered in a set of 40 numbered, fully developed lesson plans, paced to cover a 50-day teaching term. There are four such lesson plans each week for ten weeks of the term. There is no formal numbered lesson plan for the fifth lesson each week; instead, it is assigned for you to use for a variety of purposes. You can use this time to catch up, remediate or consolidate the content covered in the week's formal lessons. Learners could complete the worksheets from the DBE Workbook related to topics taught in the week if they did not manage to do them in the course of the week.

Each lesson is designed to last 90 minutes. If your school's timetable has different period lengths, you will have to adjust the amount of work done in each lesson to accommodate this. However, each school should allow seven hours for Mathematics each week, and it should be possible to fit in all the work for the week, even if the lengths of periods are not the same as in the lesson plans.

6. Sequence adherence and pacing

Each lesson and its contents have 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 leave a lesson out. You may need to speed up the pace of delivery to catch up a missed lesson 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 the routine activities like mental mathematics or homework reflection to save time until you are back on track with the expected delivery of the plans. You need to prepare very well as this will help you to manage the full set of lessons at the appropriate pace.

7. Lesson preparation

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**. The information below outlines some key aspects of preparation.

a) **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.
b) **Prepare resources:** The resources needed for each lesson are listed in each lesson plan and in the tracker. 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 cardboard and a marker pen.
   - Collect empty cool drink cans, cereal boxes, washing powder boxes, plastic bottles, etc. for the **shop activity** in the week 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, search for and print out pictures that you may need to use as illustrations in your lessons.

c) **Prepare for the written classwork and homework activities:** When preparing your lessons, check the lesson activity requirements. In some instances you will need to write information or draw some diagrams on the board that you will use while you do the interactive whole-class-teaching component of the lesson. Also mark the homework activities as often as you can, so that you can give useful feedback to the learners each day, and be aware of any difficulties learners are having as soon as they become apparent.

d) **Prepare to teach the concepts and skills associated with the lesson topic:** Think carefully about what it is that you will teach your learners in the lesson. Prepare a short introduction to the topic, so that you can explain it in simple terms to your learners. Make sure you have prepared for the teaching of the concepts before you teach – you need to be able to explain new Mathematics content and skills to the learners. Be sure you have gone through the oral teaching activities provided in the lesson plans. Also make sure that you have thought about how to use the resources in the lesson effectively. This preparation needs to be done in advance, so that you do not waste time during the lesson. Be sure you are familiar with the sequence of activities in the lesson plan. Prepare yourself to assist learners with any questions they might have during the lesson. Also give some thought to how you will accommodate learners with barriers to learning.

e) **Lesson pace:** Think about how much time you will spend on each activity. It is important to plan how you will manage the pace of the lesson carefully; otherwise you will not manage to cover all the lesson content. Not all learners work at the same pace. You need to determine the pace – be guided by the average learner and the recommendations in the lesson plans. Be careful not to slow down to the pace of the slowest learners as this will disadvantage the other learners.

f) **Organisation of learners:** Think about how you will organise learners when they do the classwork activities. Will they work alone, in pairs or in small groups? How will you organise the pairs or groups if you choose to use them? You need to organise the learners quickly at the beginning of the lesson, so that you do not waste too much time on this.

g) **Inclusive education:** Consider the needs of any learners with barriers to learning in your class, and how best you can support them. The DBE has published some excellent materials to support you in working with learners with learning barriers. Two such publications are:

- Directorate Inclusive Education, Department of Basic Education (2011) *Guidelines for Responding to Learner Diversity in the Classroom Through Curriculum and Assessment Policy Statements.* Pretoria. www.education.gov.za, www.thutong.doe.gov.za/InclusiveEducation.
- Directorate Inclusive Education, Department of Basic Education (2010) *Guidelines for Inclusive Teaching and Learning. Education White Paper 6. Special needs education: Building an inclusive education and training system.* Pretoria. www.education.gov.za, www.thutong.doe.gov.za/InclusiveEducation.

LESSON PLAN OUTLINE

Lesson Plan Outline	
Each lesson plan has several components. Information about each is given in the table below. This information tells you how to use each of the components of the lesson plans and how they fit together to create a well-paced and properly scaffolded Mathematics lesson each day. You need to read this outline as you prepare each lesson until you are fully familiar with the general lesson plan components, pace and structure.	
Lesson topic	Each lesson has a topic with specific detail about the day's lesson.
CAPS topics	The CAPS content related to the day's lesson is given here, together with the reference number for this content in the expansion of content section in the CAPS document for this term. You are encouraged to look at the CAPS to read about the selected curricular topics for the day.
Lesson vocabulary	A list of all mathematical terms used in the lesson is given here. Go through the lesson vocabulary each day as you prepare for the lesson. These terms 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 to practise using them with your learners during the lesson.
Prior knowledge and lesson concept	The prior knowledge and lesson concept section gives information about content that learners should have learnt in earlier grades that will be built on in this lesson. • You need to read through this section when you do your lesson preparation. • No time is allocated to this part of the plan because it does not form part of the teaching of the day's lesson. • The information about prior knowledge may help you to assist learners who struggle to understand the content of the lesson because there are gaps in the prior knowledge on which the lesson is based. You can use the information about prior knowledge to help you identify such gaps and to diagnose learners' needs in relation to content they do not yet know that may be preventing them from understanding the day's lesson. • Remediation may be needed on prior knowledge that you notice is not properly in place.
Assessment	A reminder to refer to the tracker for the formal oral, practical or written assessment activity for the day is given here. • On-going informal and formal oral and practical 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 every day, so that you assess your whole class in the time allocated to each assessment activity. • Rubrics and checklists to guide you in giving ratings for the oral and practical assessments are given in the tracker at the end of the tracker table for each week. Each day you need to use the appropriate rubric or checklist for the assessment activity of that day. • Written test items and their memos are provided in the tracker. Links to these items are given in the resources column of the tracker to show you in which lesson they should best be used. • A *Suggested Assessment Record Sheet* that you can use to record your term marks is given in the tracker. This sheet aligns with the SA-SAMS.
Remediation	***Optional as required.*** You could use these activities to assist slower learners. 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.

Lesson Plan Outline	
Enrichment	***Optional as required.*** You could use these activities as extra work for fast learners or others interested in doing them. 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. Ideally, you should photocopy the enrichment cards, paste them onto cardboard and laminate them, so that they can be used as a resource, not only this year, but in the future as well. Learners should work on these cards independently or with their peers who have also completed the classwork. They may work through the cards in any order. You may need to explain some of the activities to the learners who use them. You should tell them to ask questions it they have any. All learners who show an interest in the enrichment activities should be encouraged to work through the cards.
Mental mathematics **(15 minutes)**	This is the first component of the lesson. We recommend that you take at most 15 minutes to do the mental mathematics activity. There are two parts to the mental mathematics activity, a counting activity and a set of questions to drill number facts and basic mathematical strategies. Mental mathematics is not a concrete activity (as the title suggests). However, if there are learners who need concrete aids to complete the mental mathematics 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 to assist them to reach the required level of competence by offering remediation activities using concrete aids. • The answers to the ten mental mathematics questions are given in the answer column in the lesson plans. • It would be far better to do all ten questions per day, but if you find that your learners struggle to finish these in ten minutes, do a minimum of five questions. There is a set of mental mathematics challenge cards at the end of the lesson plans. Learners write the answers to the questions given on these cards. We recommend that learners only do written mental mathematics once a week and oral mental mathematics on all the other days. You can use this work to obtain a mental mathematics activity mark each week.
Correction/reflection on homework **(15 minutes)**	This is the second component 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. Let learners/peers mark the work. Also try to check homework yourself as often as you can. 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.

Lesson Plan Outline	
Lesson content – concept development **(30 minutes)**	This is the third component of the lesson. It is the body of the lesson, in which learners are introduced to the new work planned for the day. We recommend that you actively teach your class for 30 minutes – going through the activities interactively with your learners. • Activities on the content that you will teach with worked examples and suggested explanations are given. These activities have been carefully sequenced and scaffolded so that they support the teaching of the concepts for the day. You should work through each of these with your class. • It is important to manage the pace of the lesson carefully, otherwise you will not manage to cover all the lesson content. Once you have introduced the new concept, work through Activity 1 of the lesson with the whole class (or with learners in groups). Then immediately move on to the next activity, and provide a reasonable time for the learners to complete Activity 2, but do not wait for the last learner to finish before moving on. If there are further activities, continue pacing yourself in this way, so that you work through all of the activities in each lesson. A few activities are marked as *optional* – these need only be done if you have sufficient time.
Classwork activity **(25 minutes)**	This is the fourth component of the lesson. We recommend that you allocate 25 minutes to classwork. You could go over one or two of the classwork activities orally with the whole class before allowing the class to complete the activities independently (individually or in groups). • Learners do most of the activities in their Mathematics books (an exercise book for learner Mathematics 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.
Homework activity **(5 minutes)**	This is the fifth and final component of the lesson. We have allocated five 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. This is to consolidate the Mathematics that you have taught them that day. Homework also promotes learner writing and development of their mathematical knowledge..
Reflection	Each day there is a reminder to note your thoughts about the day's lesson. You will use these notes as you plan and prepare for your teaching.

WEEK 1

LESSON 1: NUMBER 6

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.3 Number symbols and number names.

Lesson vocabulary: Forwards, backwards, number symbol 6, number name six, more than, less than, left hand side, right hand side.

Prior knowledge:
Learners should have been taught how to:

- Identify, recognise and read number symbols and number names – 1 (one) to 10 (ten).
- Estimate and then count out 10 objects reliably.

Concepts:

- Compare numbers up to 6.
- Recognise, identify, read and write number symbol 6.
- Recognise, identify, read and write number name *six.*

Resources: Number symbol and name card (6 six) (see *Printable Resources*), number tracing card – 6 (see *Printable Resources*).

DBE workbook activities relevant to this lesson:

- DBE worksheet 33 (pp. 70 and 71).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Ask the learners to give you six objects, such as six counters/six books/six suitcases. Ask the learners to count the objects again and take note of how the learners are counting the objects. Learners can make the number symbol and the number name using little stones. Learners then trace over their number symbol and number name with their finger. Stress the starting point and direction of writing the symbol and the letters.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use beans) reliably to 20.
- Count forwards and backwards in 1s from 1 to 20, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	Which is less?	Answer
1.	1 or 9?	1
2.	7 or 5?	5
3.	3 or 10?	3
4.	4 or 6?	4
5.	8 or 2?	2

	Which is more?	Answer
6.	10 or 9?	10
7.	6 or 8?	8
8.	5 or 1?	5
9.	4 or 0?	4
10.	2 or 7?	7

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Place a number of objects on the learners' tables
- Ask the learners to take out six objects. E.g. *Take out six pencils.*
- Ask the learners to put some of the six pencils on the left hand side of the desk, and the rest on the right hand side of the desk.
- Ask: *What can you tell me about your pencils*? (Answer: There are six on the left and none on the right/There are three on the left and three on the right, etc.)
- Ask the learners to lay the pencils out on their desks in as many different ways as they can think of, and to discuss their layouts with their group. (Answer: There is one and one and one and one and one and one/ There are two and two and two/There are four and two, etc.)
- Ask: *What can you tell me about the number six?* (Answer: It is 1 more than 5, it is 2 more than 4, it is 3 more than 3, it is 4 more than 2, it is 5 more than 1, it is 6 more than zero.)

Activity 2: Whole class activity

- Put the number symbol and name card on the board.
- The teacher then points to the number six card and asks: *What number symbol do you see?* (6)
- Point to the number symbol and show the learners that this is how we write the number symbol. Stress the starting point and direction of writing the symbol.
- After showing them how to write the number symbol, the learners write the number symbol in the air, build it with small stones, write it on the desk with their fingers, and write it on their whiteboards/scrap paper.

Activity 3: Whole class activity

The same procedure is done with the number name.

- Refer to the number name card on the board.
- The teacher then points to the number name card and says: *Read this number name.* (six)
- Point to the number name and show the learners that this is how we write the number name. Stress the starting point and direction of writing the letters.
- After showing them how to write the number name, the learners write the number symbol in the air, build it with small stones, write it on the desk with their fingers, and write it on their whiteboards/scrap paper.

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

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

6. Reflection on lesson

Term 2 Lesson 1: Number 6

Learners will need old magazines, newspapers or advertisements that you have collected to do this activity. Remember to collect all old magazines, newspapers and advertisements that you find and keep them somewhere in your classroom to use for this (and other) activities as the year progresses.

You could leave out Question 2 of this activity if you do not have sufficient resources for the whole class to do their own collages. Hopefully you will be able to allow learners to cut out a few pictures as examples of 'six' things using the old magazines (etc.) that you have collected.

Classwork

1. Trace/copy number symbols and number words: (learners will use the printable resource to do this).

6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
six	six	six	six	six	six	six	six	six						

2. Tear little bits of paper from a magazine/newspaper and collage the number symbol '6' and the word 'six' in your mathematics book.

3. Cut out six pictures of the same type of object from the magazine and paste them next to the collage.

4. Cut out more pictures with six objects or draw pictures of groups of six objects.

Homework

1. Write the symbol '6'.

2. Write the word 'six'.

3. Draw six of the same shapes each time.
   a) △ (△ △ △ △ △ △)
   b) ◇ (◇ ◇ ◇ ◇ ◇ ◇)
   c) ○ (○ ○ ○ ○ ○ ○)

LESSON 2: NUMBER 7

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.3 Number symbols and number names. **Lesson vocabulary:** Number symbol 7, number name seven, more than, less than, forwards, backwards, left hand side, right hand side. **Prior knowledge:** Learners should have been taught how to: • Identify, recognise and read number symbols 1 to 10. • Identify, recognise and read number names one to ten. • Estimate and then count out 10 objects reliably. **Concepts:** • Compare numbers up to 7. • Recognise, identify, read and write number symbol 7. • Recognise, identify, read and write number name – seven. **Resources:** Number symbol and name card (7 seven) (see *Printable Resources*), number tracing card – 7 (see *Printable Resources*). **DBE workbook activities relevant to this lesson:** • DBE worksheet 34 (pp. 72 and 73). **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Ask the learners to give you seven objects, such as seven counters/seven books/seven suitcases. Ask the learners to count the objects again and take note of how the learners are counting the objects. Learners can make the number symbol and the number name using little stones. Learners then trace over their number symbol and number name with their finger. Stress the starting point and direction of writing the symbol and the letters. **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use counters/stones) reliably to 20.
- Count forwards and backwards in 1s from 1 to 30, starting from any given number.

1.2 Recall and strategies (10 minutes)

Ask the learners to show you a number more than 3. Learners point to the numbers on their number boards with their finger. Ask the learners to tell the person sitting next to them how many more their number is than 3. Repeat with other examples e.g. *Show me a number less than 5/more than 7*, etc.

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Place a number of objects on the learners' tables.
- Ask the learners to take out seven objects. E.g. *Take out seven pencils*.
- Ask the learners to put some of the seven pencils on the left hand side of the desk, and the rest on the right hand side of the desk. Ask: *What can you tell me about your pencils?* (Answer: There are six on the left and one on the right/There are four on the left and three on the right, etc.)
- Ask the learners to lay the pencils out on their desks in as many different ways as they can think of, and to discuss their layouts with their group. (Answer: There is one and one and one and one and one and one and one/There are two and two and two and one/There are seven and none, etc.)
- Ask: *What can you tell me about the number seven?* (Answer: It is 1 more than 6, it is 2 more than 5, it is 3 more than 4, it is 4 more than 3, it is 5 more than 2, it is 6 more than 1, it is 7 more than zero.)

Activity 2: Whole class activity

Whole class activity.

- Put the number symbol and name card on the board.
- The teacher then points to the number seven card and asks: *What number symbol do you see?* (7)
- Point to the number symbol and tell the learners that this is how we write the number symbol. Stress the starting point and direction of writing the symbol.
- After showing them how to write the number symbol, the learners write the number symbol in the air, build it with small stones, write it on the desk with their fingers, and write it on their whiteboards/scrap paper.

Activity 3: Whole class activity

The same procedure is done with the number name.

- Refer to the number name card on the board.
- The teacher then points to the number name card and says: *Read this number name*. (seven)
- Point to the number name and show the learners that this is how we write the number name. Stress the starting point and direction of writing the letters.
- After showing them how to write the number name, the learners write the number symbol in the air, build it with small stones, write it on the desk with their fingers, and write it on their whiteboards/scrap paper.

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

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

6. Reflection on lesson

Term 2 Lesson 2: Number 7

Learners will need old magazines, newspapers or advertisements that you have collected to do this activity. Remember to collect all old magazines, newspapers and advertisements that you find and keep them somewhere in your classroom to use for this (and other) activities as the year progresses.

You could leave out Question 2 of this activity if you do not have sufficient resources for the whole class to do their own collages. Hopefully you will be able to allow learners to cut out a few pictures as examples of 'seven' things using the old magazines (etc.) that you have collected.

Classwork

1. Trace/copy number symbols and number words: (learners can use the printable resource to do this).

7	7	7	7	7	7	7	7	7	7	7	7	7	7	7	7
seven				seven				seven				seven			seven

2. Tear little bits of paper from a magazine/newspaper and collage the number symbol 7 and the word seven in your mathematics books.

3. Cut out seven pictures from a magazine and paste them next to your collage.

4. The seven pictures do not have to be identical but they should be of the same type of object. E.g. seven pictures of cars which do not look exactly the same.

Homework

1. Draw one more
   a) ◆ ◆ ◆ (◆ ◆ ◆ ◆)
   b) ■ ■ ■ ■ ■ (■ ■ ■ ■ ■ ■)

2. Draw 2 less
   a) ● ● ● ● ● ● ● (● ● ● ● ●)
   b) ○ ○ ○ ○ ○ (○ ○ ○)

3. Colour the smallest number blue and the biggest number red:
   a) 5 3 7 (3 blue; 7 red)
   b) 7 2 3 (2 blue; 7 red)
   c) 6 4 2 (2 blue; 6 red)

LESSON 3: NUMBER 8

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.3 Number symbols and number names.

Lesson vocabulary: Number symbol 8, number name eight, more than, less than, forwards, backwards, left hand side, right hand side.

Prior knowledge:
Learners should have been taught how to:

- Identify, recognise and read number symbols 1 to 10.
- Identify, recognise and read number names one to ten.
- Estimate and then count out 10 objects reliably.

Concepts:

- Compare numbers up to 8.
- Recognise, identify, read and write number symbol 8.
- Recognise, identify, read and write number name – eight

Resources: Number symbol and name card (8 eight) (see *Printable Resources*), number tracing card – 8 (see *Printable Resources*).

DBE workbook activities relevant to this lesson:

- DBE worksheet 35 (pp. 74 and 75).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Ask the learners to give you eight objects, such as eight counters/eight books/eight suitcases. Ask the learners to count the objects again and take note of how the learners are counting the objects. Learners can make the number symbol and the number name using little stones. Learners then trace over their number symbol and number name with their finger. Stress the starting point and direction of writing the symbol and the letters.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use counters) reliably to 20.
- Count forwards and backwards in 1s from 1 to 30, starting from any given number.

1.2 Recall and strategies (10 minutes)

	Which is less?	Answer
1.	1 or 2?	1
2.	9 or 3?	3
3.	5 or 6?	5
4.	2 or 0?	0
5.	8 or 7?	7

	Which is more?	Answer
6.	2 or 5?	5
7.	4 or 10?	10
8.	6 or 1?	6
9.	8 or 7?	8
10.	3 or 1?	3

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Place a number of objects on the learners' tables.
- Ask the learners to take out eight objects. E.g. *Take out eight pencils.*
- Ask the learners to put some of the eight pencils on the left hand side of the desk, and the rest on the right hand side of the desk. Ask: *What can you tell me about your pencils?* (Answer: There are four on the left and four on the right/There are seven on the left and one on the right, etc.)
- Ask the learners to lay the pencils out on their desks in as many different ways as they can think of, and to discuss their layouts with their group. (Answer: There is one and one and one and one and one and one and one and one/There are two and two and two and two/There are five and three, etc.)
- Ask: *What can you tell me about the number eight?* (Answer: It is 1 more than 7, it is 2 more than 6, it is 3 more than 5, it is 4 more than 4, etc.)

Activity 2: Whole class activity

- Put the number symbol and name card on the board.
- The teacher then points to the number eight card and asks: *What number symbol do you see?* (8)
- Point to the number symbol and show the learners that this is how we write the number symbol. Stress the starting point and direction of writing the symbol.
- After showing them how to write the number symbol, the learners write the number symbol in the air, build it with small stones, write it on the desk with their fingers, and write it on their whiteboards/scrap paper.

Activity 3: Whole class activity

The same procedure is done with the number name.

- Refer to the number name card on the board.
- The teacher then points to the number name card and says: *Read this number name.* (8)
- Point to the number name and show the learners that this is how we write the number name. Stress the starting point and direction of writing the letters.
- After showing them how to write the number name, the learners write the number symbol in the air, build it with small stones, write it on the desk with their fingers, and write it on their whiteboards/scrap paper.

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

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

6. Reflection on lesson

Term 2 Lesson 3: Number 8

Learners will need old magazines, newspapers or advertisements that you have collected to do this activity. Remember to collect all old magazines, newspapers and advertisements that you find and keep them somewhere in your classroom to use for this (and other) activities as the year progresses.

You could leave out question 2 of this activity if you do not have sufficient resources for the whole class to do their own collages. Hopefully you will be able to allow learners to cut out a few pictures as examples of 'eight' things using the old magazines (etc.) that you have collected.

Classwork

1. Trace/copy number symbols and number words: (learners will use the printable resource to do this).

8 8 8 8 8 8 8 8 8 8 8 8 8 8
eight eight eight eight eight eight

2. Tear little bits of paper from a magazine/newspaper and collage the number symbol 8 and the word eight in your mathematics books.

3. Cut out eight pictures from a magazine and paste them next to your collage.

4. The eight pictures do not have to be identical but they should be of the same type of object. E.g. eight pictures of cars which do not look exactly the same.

Homework

1. Write the symbol '8'.

2. Write the word 'eight'.

3. Draw 8 of the same shapes each time.

   a) △ (△ △ △ △ △ △ △ △)
   b) ◇ (◇ ◇ ◇ ◇ ◇ ◇ ◇ ◇)
   c) ○ (○ ○ ○ ○ ○ ○ ○ ○)

LESSON 4: NUMBER 9

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.3 Number symbols and number names

Lesson vocabulary: Number symbol 9, number name nine, more than, less than, forwards, backwards, left hand side, right hand side.

Prior knowledge:
Learners should have been taught how to:

- Identify, recognise and read number symbols 1 to 10.
- Identify, recognise and read number names one to ten.
- Estimate and then count out 10 objects reliably.

Concepts:

- Compare numbers up to 9.
- Recognise, identify, read and write number symbol 9.
- Recognise, identify, read and write number name – nine.

Resources: Number symbol and name card (9 nine) (see *Printable Resources*), number tracing card – 9 (see *Printable Resources*).

DBE workbook activities relevant to this lesson:

- DBE worksheet 36 (pp. 76 and 77).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Ask the learners to give you eight objects, such as eight counters/eight books/eight suitcases. Ask the learners to count the objects again and take note of how the learners are counting the objects. Learners can make the number symbol and the number name using little stones. Learners then trace over their number symbol and number name with their finger. Stress the starting point and direction of writing the symbol and the letters.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use any counters) reliably to 20.
- Count forwards and backwards in 1s from 1 to 30, starting from any given number

1.2 Recall and strategies (10 minutes)

Ask the learners to show you a number less than 5. Learners point to the numbers on their number boards with their finger. Ask the learners to tell the person sitting next to them how many less their number is than 5. Repeat with other examples e.g. *Show me a number more than 2/less than 8*, etc.

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Place a number of objects on the learners' tables.
- Ask the learners to take out nine objects. E.g. *Take out nine pencils.*
- Ask the learners to put some of the nine pencils on the left hand side of the desk, and the rest on the right hand side of the desk. Ask: *What can you tell me about your pencils?* (Answer: There are four on the left and five on the right/There are six on the left and three on the right, etc.)
- Ask the learners to lay the pencils out on their desks in as many different ways as they can think of, and to discuss their layouts with their group. (Answer: There is one and one and one and one and one and one and one and one and one/There are two and two and two and two and one/There are two and seven, etc.)
- Ask: *What can you tell me about the number nine?* (Answer: It is 1 more than 8 it is 2 more than 7, it is 3 more than 6, it is 4 more than 5, etc.)

Activity 2: Whole class activity

- Put the number symbol and name card on the board.
- The teacher then points to the number nine card and asks: *What number symbol do you see?* (9)
- Point to the number symbol and show the learners that this is how we write the number symbol. Stress the starting point and direction of writing the symbol.
- After showing them how to write the number symbol, the learners write the number symbol in the air, build it with small stones, write it on the desk with their fingers, and write it on their whiteboards/scrap paper.

Activity 3: Whole class activity

The same procedure is done with the number name.

- Refer to the number name card on the board.
- The teacher then points to the number name card and says: *Read this number name.* (nine)
- Point to the number name and show the learners that this is how we write the number name. Stress the starting point and direction of writing the letters.
- After showing them how to write the number name, the learners write the number symbol in the air, build it with small stones, write it on the desk with their fingers, and write it on their whiteboards/scrap paper.

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

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

6. Reflection on lesson

Term 2 Lesson 4: Number 9

Learners will need old magazines, newspapers or advertisements that you have collected to do this activity. Remember to collect all old magazines, newspapers and advertisements that you find and keep them somewhere in your classroom to use for this (and other) activities as the year progresses.

You could leave out question 2 of this activity if you do not have sufficient resources for the whole class to do their own collages. Hopefully you will be able to allow learners to cut out a few pictures as examples of 'nine' things using the old magazines (etc.) that you have collected.

Classwork

1. Trace/copy number symbols and number words: (learners will use the printable resource to do this).

9 9 9 9 9 9 9 9 9 9 9 9 9 9 9
nine nine nine nine nine nine nine nine

2. Tear little bits of paper from a magazine/newspaper and collage the number symbol 9 and the word nine in your mathematics books.

3. Cut out nine pictures from the magazine and paste them next to your collage.

4. The nine pictures do not have to be identical but they should be of the same type of object. E.g. nine pictures of cars which do not look exactly the same.

Homework

1. Draw one more
   a) ◆ ◆ ◆ ◆ (◆ ◆ ◆ ◆ ◆)
   b) ■ ■ ■ ■ ■ ■ (■ ■ ■ ■ ■ ■ ■)

2. Draw 2 less
   a) ● ● ● ● ● ● ● ● ● (● ● ● ● ● ● ●)
   b) ○ ○ ○ ○ ○ ○ ○ (○ ○ ○ ○ ○)

3. Colour the smallest number blue and the biggest number red:
   a) 6 2 9 (2 blue; 9 red)
   b) 7 8 3 (3 blue; 8 red)
   c) 6 4 2 (2 blue; 6 red)

WEEK 2

LESSON 5: NUMBER 10

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.3 Number symbols and number names, 1.4 Describe, compare and order numbers.

Lesson vocabulary: Number symbol 10, number name ten, smallest, biggest, smaller than, bigger than, more than, less than, compare, order, forwards, backwards, left hand side, right hand side.

Prior knowledge:
Learners should have been taught how to:

- Identify, recognise and read number symbols 1 to 10.
- Identify, recognise and read number names one to ten.
- Estimate and then count out 10 objects reliably.

Concepts:

- Recognise, identify, read and write number symbol 10.
- Recognise, identify, read and write number name – ten.

Resources: Number symbol and name card (10 ten) (see *Printable Resources*), number tracing card – 10 (see *Printable Resources*).

DBE workbook activities relevant to this lesson:

- DBE worksheet 38 (pp. 80 and 81).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Ask the learners to give you ten objects, such as ten counters/ten books/ten suitcases. Ask the learners to count the objects again and take note of how the learners are counting the objects. Learners can make the number symbol and the number name using little stones. Learners then trace over their number symbol and number name with their finger. Stress the starting point and direction of writing the symbol and the letters.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use beans) reliably to 20.
- Count forwards and backwards in 1s from 1 to 30, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards and arrange the cards in order on their desks.

	Put these numbers in order from the smallest to the biggest.	Answer
1.	6, 9, 4, 10, 2, 5	2, 4, 5, 6, 9, 10
2.	10, 7, 3, 0, 9, 8, 5	0, 3, 5, 7, 8, 9, 10
3.	5, 9, 2, 0, 3, 7, 6	0, 2, 3, 5, 6, 7, 9
4.	10, 7, 5, 2, 9, 6	2, 5, 6, 7, 9, 10
5.	5, 2, 7, 3, 9, 0	0, 2, 3, 5, 7, 9

	Put these numbers in order from the smallest to the biggest.	Answer
6.	10, 6, 2, 0, 7, 3	0, 2, 3, 6, 7, 10
7.	8, 5, 1, 3, 7, 2	1, 2, 3, 5, 7, 8
8.	9, 0, 4, 8, 7	0, 4, 7, 8, 9
9.	6, 0, 9, 3, 4, 7	0, 3, 4, 6, 7, 9
10.	1, 9, 3, 7, 5	1, 3, 5, 7, 9

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Place a number of objects on the learners' tables.
- Ask the learners to take out ten objects. E.g. *Take out ten pencils.*
- Ask the learners to put some of the ten pencils on the left hand side of the desk, and the rest on the right hand side of the desk. Ask: *What can you tell me about your pencils?* (Answer: There are six on the left and four on the right/There are three on the left and seven on the right, etc.)
- Ask the learners to lay the pencils out on their desks in as many different ways as they can think of, and to discuss their layouts with their group. (Answer: There are five and five/There are two and two and two and two and two/There are four and four and two, etc.)
- Ask: *What can you tell me about the number ten?* (Answer: It is 1 more than 9 it is 2 more than 8, it is 3 more than 7, it is 4 more than 6, etc.)

Activity 2: Whole class activity

- Put the number symbol and name card on the board.
- The teacher then points to the number nine card and asks: *What number symbol do you see?* (10)
- Point to the number symbol and show the learners that this is how we write the number symbol. Stress the starting point and direction of writing the symbol.
- After showing them how to write the number symbol, the learners write the number symbol in the air, build it with small stones, write it on the desk with their fingers, and write it on their whiteboards/scrap paper.

Activity 3: Whole class activity

The same procedure is done with the number name.

- Refer to the number name card on the board.
- The teacher then points to the number name card and says: *Read this number name.* (ten)
- Point to the number name and show the learners that this is how we write the number name. Stress the starting point and direction of writing the letters.
- After showing them how to write the number name, the learners write the number symbol in the air, build it with small stones, write it on the desk with their fingers, and write it on their whiteboards/scrap paper.

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

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

6. Reflection on lesson

Term 2 Lesson 5: Number 10

Classwork

1. Trace/copy number symbols and number words: (learners will use the printable resource to do this).

10	10	10	10	10	10	10	10	10	10
ten	ten	ten	ten	ten	ten	ten	ten		

2. Tear little bits of paper from a magazine/newspaper and collage the number symbol 10 and the word *ten* in your mathematics books.

3. Cut out ten pictures from the magazine and paste them next to your collage.

4. The ten pictures do not have to be identical but they should be of the same type of object. E.g. ten pictures of cars which do not look exactly the same.

Homework

Learners should draw the correct number of circles.

1. Draw the circles for each given number, making sure that they can be easily counted.
   a) 5 (○ ○ ○ ○ ○)
   b) 3 (○ ○ ○)
   c) 8 (○ ○ ○ ○ ○ ○ ○ ○)
   d) 7 (○ ○ ○ ○ ○ ○ ○)
   e) 10 (○ ○ ○ ○ ○ ○ ○ ○ ○ ○)

LESSON 6: UNDERSTAND NUMBERS 1–10

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.3 Number symbols and number names, 1.4 Describe, compare and order numbers.

Lesson vocabulary: Number symbols (1–10), number names (one – ten), many, few, most, least, more than, less than, the same as, just as many as, is equal to, different, smaller than, greater than, smallest, greatest, before, after, middle, between, forwards, backwards, compare, order.

Prior knowledge:
Learners should have been taught how to:

- Identify, recognise and read number symbols and number words for 1 to 10.
- Describe, compare and order a collection of objects up to 10.

Concepts:

- Order a given set of selected numbers up to 10.
- Describe, compare and order a collection of objects and numbers using language (1–10).

Resources: Number cards (1–10) (see *Printable Resources*), counters (e.g. bottle tops), flashcards – *more, less, the same as*.

DBE workbook activities relevant to this lesson:

- DBE worksheet 39 (pp. 82 and 83).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Ask the learners to make a group of six Unifix cubes. On the left hand side make a group that is one less. On the right hand side make a group that is one more. Ask the learners to make a group of eight Unifix cubes. On the left hand side make a group that is two less. On the right hand side make a group that is two more.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count forwards and backwards in 1s from 1 to 40, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards to arrange the cards in order on their desks.

	Put these numbers in order from the biggest to the smallest.	Answer
1.	0, 8, 2, 10, 7, 3	10, 8, 7, 3, 2, 0
2.	5, 2, 7, 9, 6, 3	9, 7, 6, 5, 3, 2
3.	0, 4, 10, 6, 9	10, 9, 6, 4, 0
4.	6, 2, 7, 9, 1, 3	9, 7, 6, 3, 2, 1
5.	9, 2, 4, 8, 3, 0	9, 8, 4, 3, 2, 0

	Put these numbers in order from the biggest to the smallest.	Answer
6.	8, 5, 2, 4, 9	9, 8, 5, 4, 2
7.	0, 6, 3, 9, 4	9, 6, 4, 3, 0
8.	10, 8, 3, 2, 7	10, 8, 7, 3, 2
9.	0, 8, 6, 3, 1, 9	9, 8, 6, 3, 1, 0
10.	6, 5, 1, 9, 10	10, 9, 6, 5, 1

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

In this lesson you are revising number concept – working with numbers from 1 to 10. At the same time you are using other mathematical language which is important for learners to know. Words like *more* or *more than*, *less* or *less than*, *biggest/smallest*, and so on, are used often when comparing numbers. Be sure to allow your learners the chance to use the words themselves and to talk about the comparative sizes of the numbers.

Activity 1: Learners work in groups

- Give each group of learners some counters.
- Ask them to place four counters on the desk on their left and five counters on the desk on their right.
- Ask: *Which group has more counters? How many more? Which group has less counters? How many less?*
- Do the same activity using other examples.
- Circulate and listen to the learners telling each other about number comparisons. If some learners are hesitant to speak, encourage them as it is important not to allow a few learners to dominate the group discussions.

Activity 2: Learners work in groups

- Place the 1–5 number cards on the learners' desks.
- Ask them to arrange the number cards from the smallest to the biggest number.
- Ask the learners to: *Point to the number that comes after 1*.
- Ask learners: *What can you tell me about this number?* (Answer: It is more than 1, it is less than 3, it comes before 3, it is between 1 and 3, etc.)

Activity 3: Learners work in pairs

(If you do not have enough apparatus do this activity in groups but pairs are better as each learner is more likely to participate when in a pair.)

- Give each pair of learners ten counters or bottle tops and a set of 1–10 number cards.
- Ask the learners to place the cards in order from the smallest to the biggest number.
- Ask the learners to then place the number 5 card on the desk in front of them.
- Ask the learners to use the counters to show 2 more than 5.
- Ask questions like: *How many counters did you put out?* (Answer: 7) *What can you tell me about the number 7?* (Answer: 7 comes after 6, 7 comes before 8, 7 is in between 6 and 8, etc.)
- Do the same activity using other numbers.
- Allow the learners to use the counters to count out the numbers but also use the number symbol cards to show what numbers have been counted and displayed.

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

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

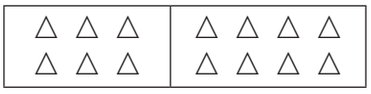
6. Reflection on lesson

Term 2 Lesson 6: Understand numbers 1–10

In this activity learners are revising number concept and at the same time working with colours. If they don't all have the colour crayons, allow them to use different colours but they should be able to tell you what colours they have used. This will also enable them to revise colour names and recognition.

Classwork

1. For each pair of blocks, colour the block with fewer shapes.



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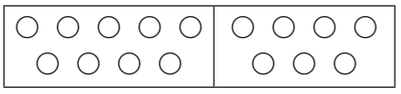

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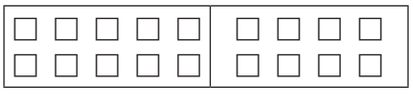


(✓)

2. Write the numbers from the smallest to the biggest on a number line.

2 4 3 6 1 5

3. Write the numbers from the smallest to the biggest on a number line.

10 6 8 7 9 5

4. Colour the smallest number green and the biggest number orange.
   a) 7 4 3 (3 green; 7 orange)
   b) 9 10 8 (8 green; 10 orange)
   c) 5 1 6 (1 green; 6 orange)
   d) 4 6 2 (2 green; 6 orange)

5. Solve the following: You can make a drawing to help you.
   a) One more than 5 is ☐ (6)
   b) One less than five is ☐ (4)
   c) Two more than six is ☐ (8)
   d) Two less than 7 is ☐ (5)

Homework

1. Draw one more
   a) ◆ ◆ ◆ ◆ ◆ ◆ (◆ ◆ ◆ ◆ ◆ ◆ ◆)
   b) ■ ■ ■ ■ ■ ■ (■ ■ ■ ■ ■ ■ ■)

2. Draw 2 less
   a) ● ● ● ● ● ● ● ● (● ● ● ● ● ● ●)
   b) ○ ○ ○ ○ ○ ○ ○ (○ ○ ○ ○ ○)

3. Colour the smallest number blue and the biggest number red:
   a) 5 9 8 (5 blue; 9 red)
   b) 6 5 7 (5 blue; 7 red)
   c) 7 2 3 (2 blue; 7 red)
   d) 9 4 10 (4 blue; 10 red)

LESSON 7: NUMBERS 1–10

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem – solving techniques, 1.7 Addition and subtraction, 1.13 Addition and subtraction.

Lesson vocabulary: Count, how many, more, most, less, fewest, groups, compare, between.

Prior knowledge:
Learners should have been taught how to:

- Describe, compare and order a collection of objects up to 10.

Concepts:

- Compare numbers up to 10.
- Describe, compare and order up to 10 objects.

Resources: Counters, Unifix cubes.

DBE workbook activities relevant to this lesson:

- DBE worksheet 41 (pp. 86 and 87).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Do more revision with concrete apparatus. Give the learners Unifix cubes to count. Guide them to place the counters in an ordered manner that makes it easier to count them.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use stones) reliably to 20.
- Count forwards and backwards in 1s from 1 to 40, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards and arrange the cards in order on their desks.

	Show me the number/s between:	Answer
1.	1 and 3	2
2.	0 and 2	1
3.	2 and 4	3
4.	3 and 5	4
5.	1 and 4	2 and 3

	Show me the number/s between:	Answer
6.	2 and 5	3 and 4
7.	1 and 5	2, 3 and 4
8.	4 and 1	2 and 3
9.	0 and 4	1, 2 and 3
10.	0 and 3	1 and 2

2. Correction/reflection on homework (15 minutes)

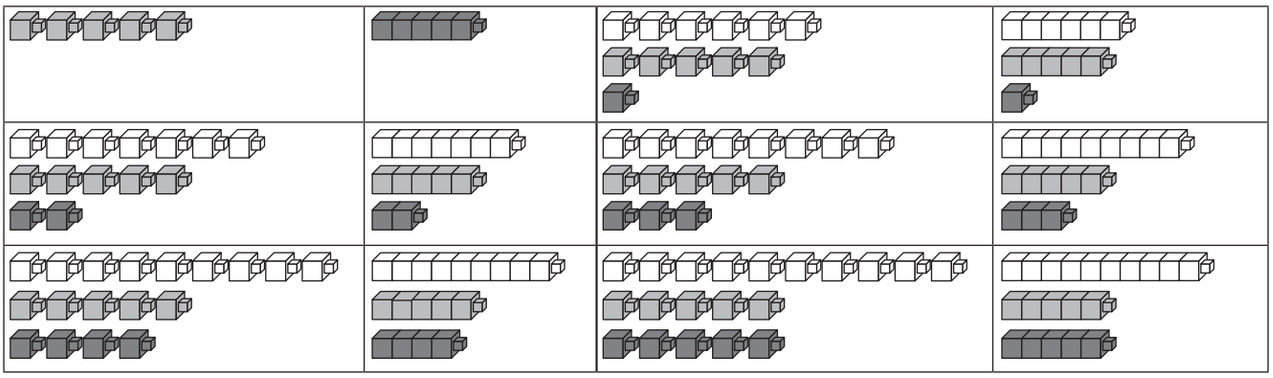
Reflection/remediation based on previous day's work/homework.

3. Lesson content – concept development (30 minutes)

This activity calls for the explicit use of Unifix cubes to show that grouped numbers are easier to count than loose counters. If you do not have Unifix cubes you could make strips of cardboard that show similar displays. An important aspect of counting grouped items is that it might encourage learners to move beyond counting in units. The idea of grouping is also important as it leads into grouping of tens which is basis of place value.

Activity 1: Learners work in groups

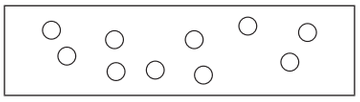
- Give the learners the following Unifix cubes to count.
- Use other apparatus if necessary to show these displays.



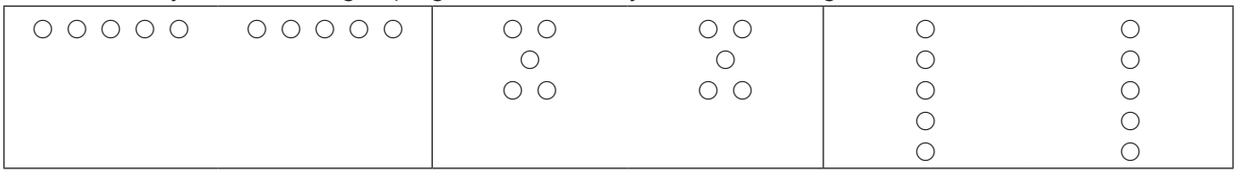
- Each time ask them: *Which group of counters was easier to count*? (Discuss: There is not one correct answer to this question. The groups which have been sorted [ordered] might be easier. Discuss different opinions. Allow learners to voice their opinion and explain them each time.)

Activity 2: Learners work in groups

- Give the learners Unifix cubes and ask them to form a group of ten by joining the blocks together. Then give them 10 loose counters.

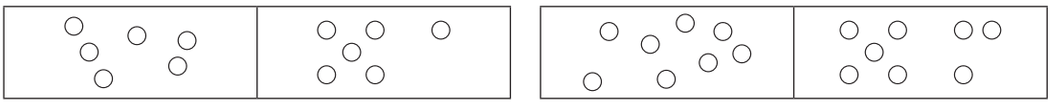


- Ask them: *Is there a way to place the counters to make the counting easier? Show the learners different ways of grouping to make the counting easier. Which one makes it easier to count?* (Different opinions could be voiced. Possibly the 'domino' grouping is easier but only if it is known, e.g.:)



Activity 3: Whole class activity

On the board draw the following displays (in each pair of drawings, there is an unsorted and sorted set of shapes):



- Ask the learners to copy the arrangements with their own counters on their tables.
- Ask them: *Which group of counters was easier to copy?* (The sorted/ordered group should be the most common answer but there is not a correct answer to this question.)
- Ask the learners to touch and count the counters in the ordered group. Then ask: *How many counters are in front of you?*
- Ask: *Do you need to touch the counters in order to count them? (Encourage learners to move beyond touch-counting as soon as they are ready for this.* Encourage them to look for patterns in the sorting and to let that help them to recognize how many counters there are.)
- Repeat this a few times with different drawings.

4. Classwork activity (25 minutes) (See next page)
5. Homework activity (5 minutes) (See next page)
6. Reflection on lesson

Term 2 Lesson 7: Numbers 1–10

Classwork

1. Look at each pair of pictures. Tick the one with the most blocks.

2. Look at each pair of pictures. Tick the one with the fewest blocks.

3. Touch and count the beads and then write down the number.
   a) ○ ○ ○ ○ ○ (5 or five)
   b) ○ ○ ○ ○ ○ ○ ○ (7 or seven)
   c) ○ ○ ○ ○ (4 or four)
   d) ○ ○ ○ ○ ○ ○ ○ ○ ○ (9 or nine)
   e) ○ ○ ○ ○ ○ ○ (6 or six)

4. Draw the counters for each given number, making sure that they can be easily counted.
   a) 8 (● ● ● ● ● ● ● ●)
   b) 6 (● ● ● ● ● ●)
   c) 9 (● ● ● ● ● ● ● ● ●)
   d) 10 (● ● ● ● ● ● ● ● ● ●)
   e) 7 (● ● ● ● ● ● ●)

Homework

1. Match the objects with the number.

1	○ ○ ○ ○ ○ ○ (6)
2	○ ○ (2)
3	○ ○ ○ ○ (4)
4	○ ○ ○ ○ ○ ○ ○ ○ (8)
5	○ (1)
6	○ ○ ○ ○ ○ ○ ○ (7)
7	○ ○ ○ ○ ○ ○ ○ ○ ○ (9)
8	○ ○ ○ (3)
9	○ ○ ○ ○ ○ (5)
10	○ ○ ○ ○ ○ ○ ○ ○ ○ ○ (10)

LESSON 8: CONSERVATION OF NUMBER

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem – solving techniques, 1.7 Addition and subtraction, 1.13 Addition and subtraction.

Lesson vocabulary: Same, equal, different, more, less, equal, match, compare, forwards, backwards, one-to-one correspondence, amount.

Prior knowledge:
Learners should have been taught how to:

- Use concrete apparatus to solve problems.
- Use one-to-one correspondence.
- Estimate and then count out 10 objects reliably.

Concepts:

- Count out objects reliably to 20.
- Compare numbers up to 10.

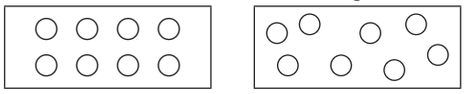
Resources: Counters, forks, spoons.

DBE workbook activities relevant to this lesson:

- DBE worksheet 42 (pp. 88 and 89).

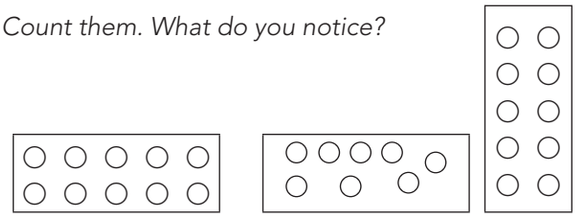
Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Place the following cards on the board.



Ask: *Are there the same amount of counters in each block? Count them. What do you notice?*

Place the following cards on the board.
Without counting, which block has: the most, the least, or the same amount of counters as the first block?
First estimate and then count. Are there things that make it easier to count?



Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use beans) reliably to 20.
- Count forwards and backwards in 1s from 1 to 40, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards and arrange the cards in order on their desks.

	Which is less?	Answer
1.	1 or 2?	1
2.	4 or 7?	4
3.	8 or 3?	3
4.	6 or 0?	0
5.	2 or 3?	2

	Which is more?	Answer
6.	10 or 3?	10
7.	6 or 2?	6
8.	5 or 9?	9
9.	4 or 1?	4
10.	9 or 8?	9

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Whole class activity

- Show the learners ● ● ● ● ● (5 blue counters) and ● ● ● ● ● (5 green counters) on the board.
- Ask: *What can you tell me about the blue and green counters?* (There is the same amount of each colour.)
- Show the learners ● ● ● ● ● (5 blue counters – spread out) and ● ● ● ● ● (5 green counters) on the board. (NB: Blue counters must be spread out more than the green counters.)
- Ask the learners: *What can you tell me about the blue and green counters?* (Possible answer: There are more blue counters. Learners who answer this show that they do not yet understand the conservation of number – they think that when the display looks bigger, the number represented must be bigger. These learners still need to count the number of counters one by one to find out how many there are. Learners who are aware that the displays are of the same number have achieved the number concept of 5.)

Activity 2: Learners work in pairs

In this activity learners consolidate the idea that one-to-one correspondence is the process of matching one object with one other object. They do not have to learn the term 'one-to-one correspondence', they must know how to use it to judge when there are the same/more/fewer objects in groups which are being compared.

- Place four forks and four spoons in a pile on the learners' desks.
- Ask the learners: *Can you find one fork to go with each of these spoons?*
- Ask the learners: *What can you tell me about the forks and the spoons?* (There were the same number of forks and spoons/There was one spoon to go with each fork, etc.)
- Repeat with other objects (e.g. pencils and counters) but do not always suggest equal numbers of the items. Encourage learners to say: *There were more pencils than counters/There were fewer books than children, etc.*

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

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

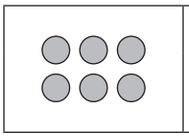
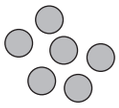
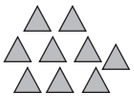
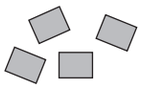
6. Reflection on lesson

Term 2 Lesson 8: Conservation of number

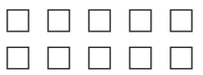
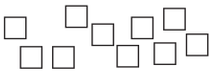
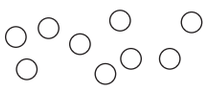
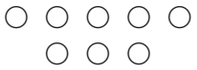
In this activity learners compare different groups of numbers using the words more, less, equal, the same as, not the same as. These are such important mathematical words – make sure that learners are beginning to understand their meanings and use them correctly.

Classwork

1. Do the blocks have the same/not the same number of pictures?

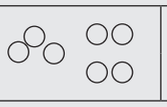
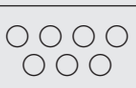
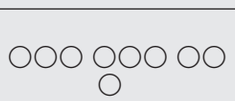
		same (✓) not the same
		same (✓) not the same
		same (✓) not the same
		same (✓) not the same

2. Is the number of counters in the second block more than/less than/the same as the first block?

		more	equal (✓)	less
		more (✓)	equal	less

Homework

1. Do the blocks have the same/not the same number of pictures?

		same (✓) not the same
		same (✓) not the same
		same not the same (✓)
		same (✓) not the same

WEEK 3

LESSON 9: RECOGNISE NUMBERS 11–19

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.3 Number symbols and number names. **Lesson vocabulary:** Number symbols 11–19, order, smallest, biggest, before, after, between, more than, less than, number line, tens, units. **Prior knowledge:** Learners should have been taught how to: • Recognise, identify, and read the number symbols 1–10. **Concepts:** • Recognise, identify and read number symbols 11–19. • Order a given set of selected numbers. **Resources:** Number name and symbol cards (11–19) (see *Printable Resources*). **DBE workbook activities relevant to this lesson:** • n/a **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Take the learners outside and write the number symbols10–20 in the sand. Ask the learners to identify each symbol. Note that the learners only have to read the number symbols 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 and not write them. **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use counters) reliably to 20.
- Count forwards and backwards in 1s from 1 to 40, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards and arrange the cards in the correct order on their desks.

	Put these numbers in order from the biggest to the smallest.	Answer
1.	8, 6, 2, 0, 7, 3	8, 7, 6, 3, 2, 0
2.	3, 10, 8, 5, 4	10, 8, 5, 4, 3
3.	8, 3, 10, 5, 7, 2	10, 8, 7, 5, 3, 2
4.	9, 3, 4, 8, 7, 2	9, 8, 7, 4, 3, 2
5.	0, 9, 10, 3, 4, 8	10, 9, 8, 4, 3, 0

	Put these numbers in order from the biggest to the smallest.	Answer
6.	8, 3, 4, 7, 2	8, 7, 4, 3, 2
7.	0, 10, 5, 8, 3	10, 8, 5, 3, 0
8.	5, 9, 7, 3, 2	9, 7, 5, 3, 2
9.	5, 9, 7, 10, 0	10, 9, 7, 5, 0
10.	3, 4, 8, 0, 7	8, 7, 4, 3, 0

2. Correction/reflection on homework (15 minutes)

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

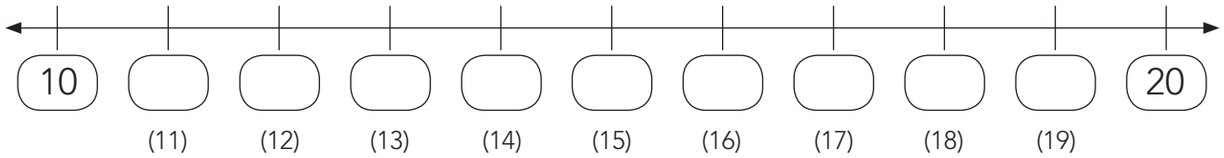
3. Lesson content – concept development (30 minutes)

Activity 1: Whole class activity

- Put the number symbol cards on the board – 11, 12, 13, 14, 15, 16, 17, 18 and 19.
- Point to a number and ask the learners what the number is. E.g. 14 The learners answer: *This is fourteen.*
- Do the same with the other numbers.
- Point to a number and ask the learners: *What can you tell me about this number?*
- E.g. 12, 13, **14**, 15, 16. (Answer: 14 is after 13/14 is before 15/14 is in between 13 and 15, etc.)
- Match the number name cards to the number symbol cards on the board.
- For each number discuss the number of 10s and units in the number. E.g. 14 has one ten and 4 units.
- Note that the learners only need to know how to read the number names up to 10 (one, two, three, four, five, six, seven, eight, nine, and ten) and the number symbols up to 19 for this lesson (1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19).

Activity 2: Whole class activity

- Draw a 10–20 number line on the board, with the first and the last number labelled (10 and 20).
- Put the 10–20 number cards on the board and then ask learners to come up and place them in the correct order on the number line.
- Discuss the placement of the numbers and try to ask all learners for responses while working on this to see that they are able to count between 10 and 20.



Activity 3: Learners work in groups

- Give the learners newspapers, magazines or advertisements.
- Ask them to find the number symbols 11, 12, 13, 14, 15, 16, 17, 18 and 19.
- The learners can each cut out the number symbols that they find and paste them onto a piece of paper to display in the classroom.

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

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

6. Reflection on lesson

Term 2 Lesson 9: Recognise numbers 11–19

This activity works with colours. Remember that you can allow flexibility with the use of colours but make sure that learners can tell you what colours they have used.

Classwork

1. Find and cut out numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18 and 19 from an old magazine and paste them into your mathematics book.

2. Copy the numbers 10–19 into your mathematics books.

10	11	12	13	14	15	16	17	18	19

3. What numbers come before 19 and after 12? (18 and 13 come directly before 19 and after 12. In addition to this, the numbers 14, 15, 16 and 17 also lie between 12 and 19)

Homework

1. Draw a number grid like this in your homework book:

10	11	12	13	14
15	16	17	18	19

2. Colour the numbers in the grid as follows:

a) Red ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ (13)	b) Green ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ (19)
c) Yellow ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ (17)	d) Blue ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ (15)

LESSON 10: RECOGNISE NUMBERS 20–29

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem – solving techniques, 1.7 Addition and subtraction, 1.13 Addition and subtraction. **Lesson vocabulary:** Number symbols 20–29, more than, less than, order, before, after, between, number line, tens, units **Prior knowledge:** Learners should have been taught how to: • Recognise, identify, and read the number symbols 1–19. **Concepts:** • Recognise, identify and read number symbols 20–29. • Order a given set of selected numbers. **Resources:** Number name and symbol cards (20–29) (see *Printable Resources*). **DBE workbook activities relevant to this lesson:** • n/a **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Take the learners outside and write the number symbols 20–30 in the sand. Ask the learners to identify each symbol. Note that the learners only have to recognise and read the number symbols 20, 21, 22, 23, 24, 25, 26, 27, 28, 29 and 30 and not write them. **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use beans) reliably to 20.
- Count forwards and backwards in 1s from 1 to 50, starting from any given number.

1.2 Recall and strategies (10 minutes)

Read out the questions one at a time. Learners hold up the card that gives the correct answer.

		Answer
1.	8 is _____ 7?	more than
2.	3 is _____ 6?	less than
3.	1 is _____ 7?	less than
4.	4 is _____ 3?	more than
5.	5 is _____ 1	more than

		Answer
6.	0 is _____ 10?	less than
7.	1 is _____ 5?	less than
8.	2 is _____ 6?	less than
9.	9 is _____ 5?	more than
10.	3 is _____ 2	more than

2. Correction/reflection on homework (15 minutes)

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

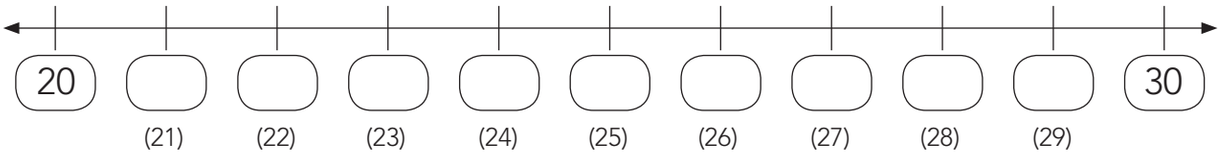
3. Lesson content – concept development (30 minutes)

Activity 1: Whole class activity

- Put the number symbol cards on the board – 20, 21, 22, 23, 24, 25, 26, 27, 28, and 29.
- Point to a number and ask the learners what the number is. E.g. 23 The learners answer: *This is twenty three.*
- Do the same with the other numbers.
- Point to a number and ask the learners: *What can you tell me about this number?*
- E.g. 21, **22**, 23, 24, 25. (Answer: 22 is before 23/22 is after 21/22 is between 21 and 23.)
- Match the number name cards to the number symbol cards on the board.
- For each number discuss the number of 10s and units in the number. E.g. 22 has 2 tens and 2 units.
- Revise number symbols 1–19 by pointing to them on a number line or number chart in the classroom. Point to the number symbols 20, 21, 22, 23, 24, 25, 26, 27, 28, and 29. Note that the learners only need to know the number names up to 10 (*one, two, three, four, five, six, seven, eight, nine, and ten*) and the number symbols up to 30 for this lesson (20, 21, 22, 23, 24, 25, 26, 27, 28, and 29).

Activity 2: Whole class activity

- Draw a 20–30 number line on the board, label the first and the last numbers (20 and 30) on the number line
- Put the 20–30 number cards on the board and then ask learners to come up and place them in the correct order on the number line.
- Discuss the placement of the numbers and try to ask all learners for responses while working on this to see that they are able to count between 20 and 30.



Activity 3: Learners work in groups

- Give the learners newspapers, magazines or advertisements.
- Ask them to find the number symbols 20, 21, 22, 23, 24, 25, 26, 27, 28, and 29.
- The learners can each cut out the number symbols that they find and paste them onto a piece of paper to display in the classroom.

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

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

6. Reflection on lesson

Term 2 Lesson 10: Recognise numbers 20–29

Classwork

1. Colour the following numbers orange.
   22, 25, 27, 28, 21, 23, 29, 24, 26

11	12	13	14	15
16	17	18	19	20
21(✓)	22(✓)	23(✓)	24(✓)	25(✓)
26(✓)	27(✓)	28(✓)	29(✓)	30

2. Copy the numbers 20–29 into your mathematics books.

20	21	22	23	24	25	26	27	28	29

3. What numbers come after 22 and before 26? (23 and 25)

Homework

1. Draw a number grid like this in your homework book:

20	21	22	23	24
25	26	27	28	29

2. Colour the numbers in the grid as follows:

a) Yellow ○ (26)	b) Blue ○ (28)
c) Red ○ (23)	d) Green ○ (29)

LESSON 11: RECOGNISE NUMBERS 30–39

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem – solving techniques, 1.7 Addition and subtraction, 1.13 Addition and subtraction.

Lesson vocabulary: Number symbols 30–39, more than, less than, order, before, after, between, number line, tens, units.

Prior knowledge:
Learners should have been taught how to:

- Recognise, identify, and read the number symbols 1–29

Concepts:

- Recognise, identify and read number symbols 30–39.
- Order a given set of selected numbers.

Resources: Number name and symbol cards (30–39) (see *Printable Resources*).

DBE workbook activities relevant to this lesson:

- n/a

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Take the learners outside and write the number symbols 30–39 in the sand. Ask the learners to identify each symbol. Note that the learners only have to recognise and read the number symbols 30, 31, 32, 33, 34, 35, 36, 37, 38 and 39 and not write them.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use stones) reliably to 20.
- Count forwards and backwards in 1s from 1 to 50, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	2 more than 8?	10
2.	5 more than 1?	6
3.	1 more than 7?	8
4.	4 more than 3?	7
5.	3 more than 6	9

	What is?	Answer
6.	0 more than 10?	10
7.	1 more than 2?	3
8.	2 more than 6?	8
9.	4 more than 5?	9
10.	3 more than 2	5

2. Correction/reflection on homework (15 minutes)

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

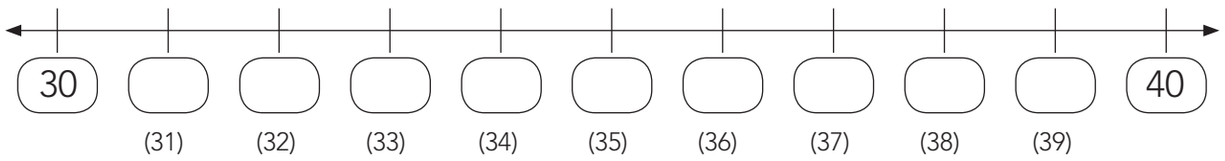
3. Lesson content – concept development (30 minutes)

Activity 1: Whole class activity

- Put the number symbol cards on the board – 30, 31, 32, 33, 34, 35, 36, 37, 38, and 39.
- Point to a number and ask the learners what the number is. E.g. 33 The learners answer: *This is thirty three.*
- Do the same with the other numbers.
- Point to a number and ask the learners: *What can you tell me about this number?*
- E.g. 31, 32, **33**, 34, 35. (Answer: 33 is after 32/33 is before 34/33 is between 32 and 34.)
- Match the number name cards to the number symbol cards on the board.
- For each number discuss the number of 10s and units in the number. E.g. 33 has 3 tens and 3 units.
- Revise number symbols 1–29 by pointing to them on a number line or number chart in the classroom. Point to the number symbols 30, 31, 32, 33, 34, 35, 36, 37, 38, and 39. Note that the learners only need to know the number names up to 10 (one, two, three, four, five, six, seven, eight, nine, and ten) and the number symbols up to 39 for this lesson (30, 31, 32, 33, 34, 35, 36, 37, 38, and 39).

Activity 2: Whole class activity

- Draw a 30–40 number line on the board, with the first and the last number labelled (30 and 40).
- Put the 30–40 number cards on the board and then ask learners to come up and place them in the correct order on the number line.
- Discuss the placement of the numbers and try to ask all learners for responses while working on this to see that they are able to count between 30 and 40.



Activity 3: Learners work in groups

- Give the learners newspapers, magazines or advertisements.
- Ask them to find the number symbols 30, 31, 32, 33, 34, 35, 36, 37, 38, and 39.
- The learners can each cut out the number symbols that they find and paste them onto a piece of paper to display in the classroom.

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

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

6. Reflection on lesson

Term 2 Lesson 11: Recognise numbers 30–39

Classwork

1. Colour the following numbers orange.
   31, 36, 39, 40, 35, 34, 32, 37, 33, 38

21	22	23	24	25
26	27	28	29	30
31(✓)	32(✓)	33(✓)	34(✓)	35(✓)
36(✓)	37(✓)	38(✓)	39(✓)	40(✓)

2. Copy the numbers 30–39 into your mathematics books.

30	31	32	33	34	35	36	37	38	39

3. What numbers come before 36 and after 31? (32, 33, 34, 35)

Homework

1. Draw a number grid like this in your homework book:

30	31	32	33	34
35	36	37	38	39

2. Colour the numbers in the grid as follows:

a) Yellow ○ (37)	b) Blue ○ (31)
c) Red ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ (35)	d) Green ○ (33)

LESSON 12: RECOGNISE NUMBERS 40–50

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.3 Number symbols and number names. **Lesson vocabulary:** Number symbols 40–50, more than, less than, order, before, after, between, number line, tens, units. **Prior knowledge:** Learners should have been taught how to: • Identify, recognise, and read the number symbols 1–39. **Concepts:** • Recognise, identify and read number symbols 40–50. • Order a given set of selected numbers. **Resources:** Number name and symbol cards (40–50) (see *Printable Resources*). **DBE workbook activities relevant to this lesson:** • n/a **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Take the learners outside and write the number symbols 40–50 in the sand. Ask the learners to identify each symbol. Note that the learners only have to recognise and read the number symbols 40, 41, 42, 43, 44, 45, 46, 47, 48, 49 and 50 and not write them. **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use counters) reliably to 20.
- Count forwards and backwards in 1s from 1 to 50, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	1 less than 8?	7
2.	2 less than 10?	8
3.	3 less than 7?	4
4.	4 less than 9?	5
5.	3 less than 5?	2

	What is?	Answer
6.	6 less than 10?	4
7.	0 less than 9	9
8.	7 less than 10?	3
9.	4 less than 8?	4
10.	9 less than 10?	1

2. Correction/reflection on homework (15 minutes)

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

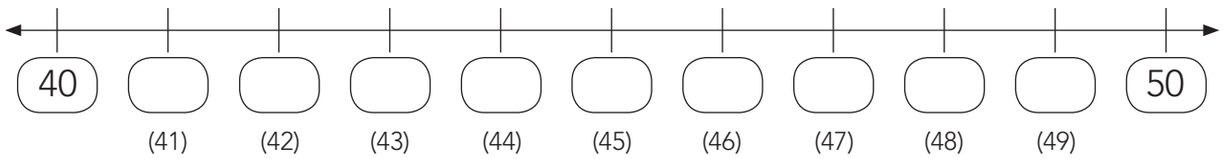
3. Lesson content – concept development (30 minutes)

Activity 1: Whole class activity

- Put the number symbol cards on the board – 40, 41, 42, 43, 44, 45, 46, 47, 48, and 49.
- Point to a number and ask the learners what the number is. E.g. 43 The learners answer: *This is forty three.*
- Do the same with the other numbers.
- Point to a number and ask the learners: *What can you tell me about this number?*
- E.g. 41, 42, **43**, 44, 45. (Answer: 43 is after 42/43 is before 44/43 is between 42 and 44.)
- Match the number name cards to the number symbol cards on the board.
- For each number discuss the number of 10s and units in the number. E.g. 43 has 4 tens and 3 units.
- Revise number symbols 1–39 by pointing to them on a number line or number chart in the classroom. Point to the number symbols 40, 41, 42, 43, 44, 45, 46, 47, 48, and 49. Note that the learners only need to know the number names up to 10 (*one, two, three, four, five, six, seven, eight, nine, and ten*) and the number symbols up to 50 for this lesson (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, and 50).

Activity 2: Whole class activity

- Draw a 40–50 number line on the board, with the first and the last number labelled (40 and 50).
- Put the 40–50 number cards on the board and then ask learners to come up and place them in the correct order on the number line.
- Discuss the placement of the numbers and try to ask all learners for responses while working on this to see that they are able to count between 40 and 50.



Activity 3: Learners work in groups

- Give the learners newspapers, magazines or advertisements.
- Ask them to find the number symbols 40, 41, 42, 43, 44, 45, 46, 47, 48, and 49.
- The learners can each cut out the number symbols that they find and paste them onto a piece of paper to display in the classroom.

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

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

6. Reflection on lesson

Term 2 Lesson 12: Recognise numbers 40–50

Classwork

1. Colour the following numbers orange.
   41, 46, 49, 50, 45, 43, 42, 47, 44, 48

31	32	33	34	35
36	37	38	39	40
41(✓)	42(✓)	43(✓)	44(✓)	45(✓)
46(✓)	47(✓)	48(✓)	49(✓)	50(✓)

2. Copy the numbers 40–49 into your mathematics books.

40	41	42	43	44	45	46	47	48	49

3. What numbers come after 44 and before 50? (45 and 49)

Homework

1. Draw a number grid like this in your homework book:

40	41	42	43	44
45	46	47	48	49

2. Colour the numbers in the grid as follows:

a) Yellow
○○○○○○○○○○
○○○○○○○○○○
○○○○○○○○○○ ○○○○○
○○○○○○○○○○ (45)

b) Blue
○○○○○○○○○○
○○○○○○○○○○
○○○○○○○○○○
○○○○○○○○○
○○○○○○○○○○ (49)

c) Red
○○○○○○○○○○ ○○○○○○○
○○○○○○○○○○ ○○○○○
○○○○○○○○○○ (42)

d) Green
○○○○○○○○○○
○○○○○○○○○○
○○○○○○○○○○ ○○○○○○○
○○○○○○○○○○ (47)

WEEK 4

LESSON 13: CAPACITY AND VOLUME

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 4.4 Capacity/volume.

Lesson vocabulary: Full, empty, more than, less than, the same as, amount, estimate, compare, measure, order, record, capacity.

Prior knowledge:
Learners should have been taught how to:

- Compare and order the amount of liquid in two containers placed next to each other.
- Check by pouring into a third container.
- Use language to talk about the comparison.

Concepts:

- Compare and order the amount of liquid that two containers can hold if filled.
- Estimate, measure, compare, order and record the capacity of containers by using non-standard measures.

Resources: Variety of containers, sand or water, cups, mugs, 2 litre bottle, 500ml bottle, flash cards: *full*, *empty*.

DBE workbook activities relevant to this lesson:

- DBE worksheet 37 (pp. 78 and 79).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Place a short cup and a tall mug on the learners' desks. Ask them to fill the cup with sand/water. Ask the learners: *Will the mug hold more sand/water in it than the cup does?* (Answer: The learners may/may not answer correctly.) Ask the learners: *Why do you say so?* Learners then check their answer by pouring the sand/water from the cup into the mug. Now fill the mug with sand/water and ask the learners: *Will the cup hold more sand/water in it?* (Answer: The learners may/may not answer correctly.) Ask the learners: *Why do you say so?* Learners then check their answer by pouring the sand/water from the mug into the cup.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use any counters) reliably to 20.
- Count forwards and backwards in 1s from 1 to 30, starting from any given number.

1.2 Recall and strategies (10 minutes)

	Which is less?	Answer
1.	1 or 9?	1
2.	2 or 10?	2
3.	5 or 6?	5
4.	9 or 0?	0
5.	3 or 8?	3

	Which is less?	Answer
6.	4 or 7?	4
7.	6 or 10?	6
8.	7 or 0?	0
9.	8 or 5?	5
10.	10 or 0?	0

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

This is a practical lesson where learners are given the opportunity to work with containers while they develop their understanding of the concept of capacity. It really is important to give learners the chance to do this practical work. At the same time, make sure that they use the related vocabulary to talk about what they are doing and the ideas they are learning. If you do not have sufficient space to allow all of the learners to do the practical work themselves it is essential for you to demonstrate the activities to the whole class and to allow at least some learners to participate in the demonstration so that the class does feel involved in the demonstration.

Activity 1: Learners work in groups

- Give the learners a variety of containers. Some containers should be filled and some should be empty.
- Ask the learners to show you all the *full* and then all the *empty* containers.
- Learners say whilst pointing: *These containers are full* and *These containers are empty.*
- Discuss with the class that the words *full* and *empty* tell us about the state of the container in terms of its *capacity*.
- The capacity tells us *how much a container can hold* – if it is full, it is filled to its capacity. If it is empty, it has not been filled at all.

Activity 2: Learners work in groups

- Each group needs a 2 litre bottle, a 500ml bottle and a large third container.
- Fill the 2 litre bottle and the 500ml bottle to the same level with sand or water.
- Ask learners *Which bottle contains more sand/water?* (Listen to all of the answers given by learners. They will be trying to reason out the answer by looking at how full the containers are. Engage with their answers and allow learners to explain their reasoning each time.)
- Ask learners *Why do you say so?*
- Discuss both correct and incorrect answers to guide learners.
- Learners then check by pouring the sand/water into the third container and marking off the height.
- Discuss what has been learned about capacity. (The size of a container determines its capacity: the shape of a container could make it look as if it can hold more/less compared to another container of a different shape. We cannot use the height to which a container has been filled to decide if it is holding the same amount as another container filled to the same height – the shape of the container needs to be taken into consideration. Etc.)

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

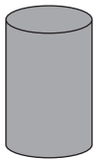
5. Homework activity (5 minutes) (See next page)

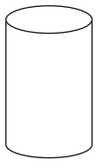
6. Reflection on lesson

Term 2 Lesson 13: Capacity and volume

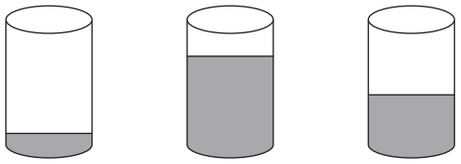
Classwork

1. Is the container full or empty?

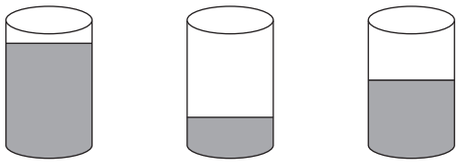
a)  (full)

b)  (empty)

2. Which container has more water than the first one? (Both of the other two containers.)



3. Which container has less water than the first one? (The second two containers.)



4. Draw two containers to show them filled with the same amount of water. (Answers may vary – amount must be the same in both.)

5. Draw a container filled to its capacity. (Answers may vary – the container must be shown full up.)

Homework

1. Draw an empty container. (Answers may vary – the container must be shown empty.)

2. Draw two containers to show them filled with the different amounts of water. (Answers may vary – amount must be the different in the containers.)

LESSON 14: CAPACITY AND VOLUME

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 4.4 Capacity/volume. **Lesson vocabulary:** Full, empty, more than, less than, the same as, compare, amount, measure, capacity, volume. **Prior knowledge:** Learners should have been taught how to: • Compare and order the amount of liquid in two containers placed next to each other and check by pouring into a third container. • Use language to talk about the comparison. **Concepts:** • Compare and order the amount of liquid that two containers can hold if filled (capacity). • Use language to talk about the comparison.   • Estimate, measure, compare, order and record the capacity of containers by using non-standard measures. **Resources:** Variety of 1 litre containers, a 500ml jug, one large container (e.g. a 2 litre bottle), sand or water. **DBE workbook activities relevant to this lesson:** • DBE worksheet 40 (pp. 84 and 85). **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Give the learners some containers. Fill a 2 litre bottle and a 500ml jug to the same level. Ask the learners which bottle contains more. Learners can check by pouring the liquid into a third container and marking off the height. (Learners should be given lots of practice in comparing the volumes in containers with different widths). **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out object (use beans) reliably to 20.
- Count forwards and backwards in 1s from 1 to 40, starting from any given number.

1.2 Recall and strategies (10 minutes)

Ask the learners to show you a number more than 7 on their number boards. Learners point to a number on their number boards with their finger. Ask the learners to tell the person sitting next to them how many more their number is than 7. Repeat with other examples, e.g. *Show me a number less than 10/more than 4,* etc.

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

This is a second practical lesson on the topic of capacity. Again learners should be given the opportunity to work with containers while they develop their understanding of the concept of capacity and to use the mathematical vocabulary related to the topic. You will need to have collected all of the containers in order to do this activity. As we suggested for the previous lesson, if you do not have sufficient space to allow all of the learners to do the practical work themselves it is essential for you to demonstrate the activities to the whole class and to allow at least some learners to participate in the demonstration so that the class does feel involved in the demonstration. While they participate in the demonstration ask many interactive questions which will call on learners to use all of the capacity vocabulary.

Activity 1: Learners work in groups

- In this lesson you will work with a few different 1 litre containers. You should have collected as many different 1 litre containers as you could find (some short and wide, others tall and thin etc.).
- Place the 1 litre containers on the learners' desks. (Do not tell the learners that they are 1 litre containers.)
- Ask the learners if the containers can all hold the same volume of water.
- Ask the learners to give reasons for their answers. Discuss the answers and their feasibility but at this stage do not indicate whether they are correct or not.
- Ask the learners to put the containers in order from the one that can hold the most to the one that can hold the least.
- Discuss the way in which the learners ordered the containers. (At this point in the lesson do not tell the learners whether their sorting/ordering is right/wrong. Let the next activity show light on the actual capacity of the containers.)

Activity 2: Learners work in groups

- Fill all the 1 litre containers with water/sand.
- Find out if they hold the same volume by pouring the water/sand from each litre container, one at a time, into the same jug and marking the level.
- Discuss the findings: did the learners change the way they thought about the capacity of the different containers after they had the opportunity to test the capacity by filling the containers? (In this discussion you could talk about the idea that although the containers look different and it may seem that they do not/cannot hold the same amount of substance, since they are all 1 litre containers they hold the same amount. This discussion will help learners not to be confused by differences in the appearance of the containers and learn to estimate capacity more effectively.)

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

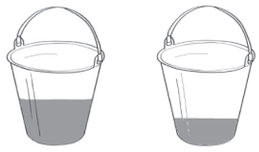
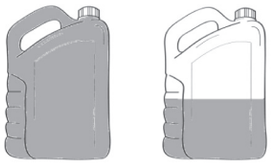
5. Homework activity (5 minutes) (See next page)

6. Reflection on lesson

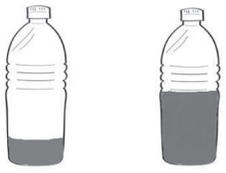
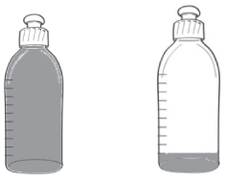
Term 2 Lesson 14: Capacity and volume

Classwork

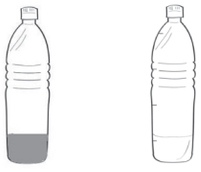
1. Which container holds more? The first or the second? (a) first; b) first)

a)  b) 

2. Which container holds less? The first or the second? (a) first; b) second)

a)  b) 

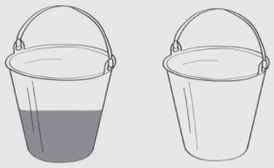
3. Colour more water in the container on the right. (Answers will vary – the second container must have more.)



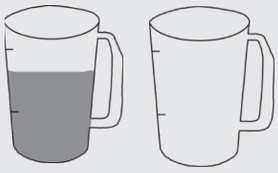
4. Colour less water in the container on the right. (Answers will vary – the second container must have less.)

Homework

1. Colour more water in the container on the right. (Answers will vary – the second container must have more.)



2. Colour less water in the container on the right. (Answers will vary – the second container must have less.)



LESSON 15: ADDITION UP TO 10 – COUNTING ON

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.7 Addition and subtraction, 1.13 Addition and subtraction.

Lesson vocabulary: Add, plus, more, makes, altogether, count on, number sentence, addition, more than, less than, counting on, left hand side, right hand side, number line.

Prior knowledge:
Learners should have been taught how to:

- Add and subtract up to 5 using concrete apparatus and pictures.
- Work with number bonds up to 5.

Concepts:

- Solve problems using concrete apparatus and pictures and explain solutions to problems involving addition with answers up to ten.
- Using appropriate symbols (+).

Resources: Counters, number symbol cards (1–10) (see *Printable Resources*), flashcards: *and*, *makes* and + (see *Printable Resources* – make enough cards to give to each learner/groups of learners).

DBE workbook activities relevant to this lesson:

- DBE worksheet 43 (pp. 94 and 95).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Give each group 5 counters. Ask them to show you 4 and 1 is 5. ● ● ● ● ●. Ask the learners to build the number sentence using number symbol cards and flashcards as in Activity 3. Ask the learners to say the number sentence: *4 and 1 makes 5*. Repeat with different examples.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use stones) reliably to 20.
- Count forwards and backwards in 1s from 1 to 50, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	1 more than 5?	6
2.	3 more than 2?	5
3.	6 more than 4?	10
4.	2 more than 7?	9
5.	0 more than 1?	1

	Which is less?	Answer
6.	4 more than 1?	5
7.	5 more than 3?	8
8.	7 more than 1?	8
9.	10 more than 0?	10
10.	9 more than 1?	10

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give each group of learners five counters. Ask them to put three counters on the left hand side of their desk, and 2 counters on the right hand side.
- Ask the learners how many counters they can see altogether. (5)
- Ask: *What are we doing when we count altogether?* (We are adding.)
- Ask learners to explain how the two parts are added to make the total: – ● ● ● and ● ● is five, OR three and two makes five.
- Ask: *How did you get your answers?* (I counted 3 and then I counted 2 more and that makes five.)
- Say: *Let us all do that together. Count: 1, 2, 3. Now hold that number in your head, and count on 4, 5.*
- Do the same with as many combinations for five as they can.

Activity 2: Learners work in groups

- Give each group of learners ten counters: ● ● ● ● ● ● ● ● ● ● .
- Ask the learners to show you 3 and 7 using counters. Learners must put the two groups of counters on their desks.
- Say: *We are going to add 3 and 7.*
- Ask learners to count on from 3 to find the answer to the sum 3 + 7 makes …. Learners count: 4, 5, 6, 7, 8, 9, 10.
- Do the same with other combinations that make 10.

Activity 3: Learners work in groups

- Give each learner the *and* and the *makes* cards.
- In the previous activities we were just using counters to do addition by counting on. Now we are going to record what we did using numbers and symbols.
- Say: *Let us show the sum of 3 and 7* (3 and 7 makes 10) *using cards like this:*

3	and	7	makes	10

- Show them how to read it as a number sentence. Point and say: *3 and 7 makes 10.*
- Repeat with other examples.
- Ask learners is they know another way to show *and*. Introduce the + sign (give the learners the + card).
- Repeat the steps for Activity 3, but use the + card so that the number sentence reads:

3	+	7	makes	10

- Make more number sentences in this way using other combinations that make 10.
- Talk to the learners about using the + symbol to write an addition number sentence and encourage them to write number sentences from now on to record the sums that they have done. You have told them about this symbol to help them record their addition number sentences more efficiently.
- Do not introduce the = sign today – you will introduce it in tomorrow's lesson.

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

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

6. Reflection on lesson

Term 2 Lesson 15: Addition up to 10 – counting on

*In this lesson the aim is to encourage learners who have not started counting on (rather than counting **all**) to start counting on. As you circulate in the class checking learners' work listen to what they say while they do addition. If they are counting **all** (this means they start counting from one), ask them if they can think of a quicker way of counting – by starting from the first number – allow them the chance to do it with you and see if they understand that it is more efficient and gets them to the same answer.*

In the lesson you also introduced the addition symbol. Focus on the use of the symbol. Make sure learners record their addition number sentences using number symbols and the addition symbol. Learners will still be working with counters and possibly doing drawings, but they should be moving towards writing correct number sentences when they record the calculation. The emphasis should be placed on the number sentence and moved off the drawing, which is used as an aid, not an algorithm.

Classwork

1. Draw a picture and write a number sentence for each.
   a) Sam has 3 sweets. Sipho has 5 sweets. How many sweets do they have altogether?
   (● ● ● ● ● ● ● ●) ☐ + ☐ makes ☐ (3 + 5 makes 8)
   b) I have 4 marbles and I win 3 more marbles. How many marbles do I have?
   (● ● ● ● ● ● ●) ☐ + ☐ = ☐ (4 + 3 makes 7)
   c) There were 6 butterflies. 2 more joined them. How many are there altogether?
   (● ● ● ● ● ● ● ●) ☐ + ☐ = ☐ (6 + 2 makes 8)

2. Use 2 colours to show the following:
   a) ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ 8 + 2 makes ☐ (10)
   b) ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ 7 + 3 makes ☐ (10)
   c) ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ 6 + 4 makes ☐ (10)
   d) ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ 9 + 1 makes ☐ (10)

Homework

Use 2 colours to show the following:

1. ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ 4 + 6 makes ☐ (10)
2. ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ 3 + 7 makes ☐ (10)
3. ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ 5 + 5 makes ☐ (10)
4. ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ 1 + 9 makes ☐ (10)

LESSON 16: ADDITION – BUILDING UP NUMBERS UP TO 10

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.7 Addition and subtraction, 1.13 Addition and subtraction.

Lesson vocabulary: Add, plus, more, makes, altogether, count on, number sentence, addition, more than, less than, sum, number line, calculation.

Prior knowledge:
Learners should have been taught how to:

- Add and subtract up to 5 using concrete apparatus and pictures.
- Work with number bonds up to 5.

Concepts:

- Solve problems using concrete apparatus and pictures and explain solutions to problems involving addition with answers up to ten.
- Use appropriate symbols (+, =).
- Use the following techniques when solving addition (0–10) and explain solutions to problems: building up and breaking down numbers up to 10.

Resources: Unifix cubes, counters, number symbol cards (1–10) (see *Printable Resources*), flashcards +, *makes* and = (see *Printable Resources*).

DBE workbook activities relevant to this lesson:

- DBE worksheet 45 (pp. 94 and 95).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Give learners 5 groups of 10 Unifix cubes/counters of different colours. Ask learners to show you 1 and 9 is 10. E.g.

Do the same with 2 and 8 is 10; 3 and 7 is 10; 4 and 6 is 10; 5 and 5 is 10.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use counters) reliably to 20.
- Count forwards and backwards in 10s from 10 to 50.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up cards with the correct answer.

	What is?	Answer
1.	1 less than 2?	1
2.	2 less than 5?	3
3.	3 less than 9?	6
4.	4 less than 6?	2
5.	5 less than 7?	2

	Which is?	Answer
6.	0 less than 10?	10
7.	6 less than 8?	2
8.	7 less than 7?	0
9.	1 less than 9?	8
10.	3 less than 5?	2

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give each group of learners ten counters, the number symbol cards 1–10 and the flashcards + and *makes*.
- Ask learners to show you the following combinations with their counters, and make the number sentence with their number symbol cards and flash cards:
  ● and ● ● ● ● is five (1 + 4 makes 5);
  ● ● ● ● and ● ● ● ● ● ● is ten (4 + 6 makes 10).
- Repeat with other numbers. The important activity here is to make the number sentences to represent the addition using the cards (number symbols, + sign, and makes).
- You could use combinations that add up to a maximum of 10.

Activity 2: Learners work in groups

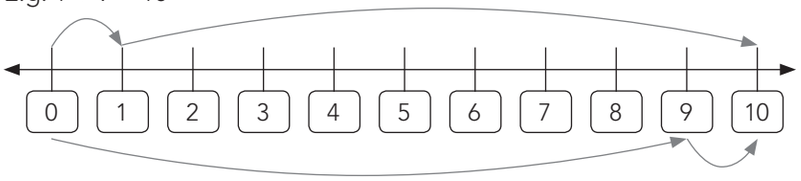
- This is the activity in which you introduce the = sign
- Ask learners if they know of another way to show *makes*.
- Introduce the = sign (give the learners the = card).
- Repeat the steps for Activity 1, but use the = card so that the number sentence reads

  1 + 3 = 4

- Discuss with learners that from now on they can write number sentences using only symbols to record an addition calculation. They can use counters and drawings on the side if they want to, if it helps them with the calculation, but their written record must be a proper number sentence.
- Do examples that add different combinations up to 10.
- E.g. 2 + 4 = 6, 3 + 5 = 8, 7 + 3 = 10, etc.

Activity 3: Whole class activity

- Use 10 counters to demonstrate the following sums, while you show the addition on a number line at the same time.
- E.g. 1 + 9 = 10



9 + 1 = 10

- Each time you show the addition on the number line, show the jumps, then rub them out to do the next one.
- Work through each of these sums, writing them on the board one at a time, to build up the whole table of what you have done.

● ●●●●●●●●● 1 and 9 makes 10 1 + 9 = 10	●●●●●● ●●●● 6 and 4 makes 10 6 + 4 = 10
●● ●●●●●●●● 2 and 8 makes 10 2 + 8 = 10	●●●●●●● ●●● 7 and 3 makes 10 7 + 3 = 10
●●● ●●●●●●● 3 and 7 makes 10 3 + 7 = 10	●●●●●●●● ●● 8 and 2 makes 10 8 + 2 = 10
●●●● ●●●●●● 4 and 6 makes 10 4 + 6 = 10	●●●●●●●●● ● 9 and 1 makes 10 9 + 1 = 10
●●●●● ●●●●● 5 and 5 makes 10 5 + 5 = 10	●●●●●●●●●● 10 and 0 makes 10 10 + 0 = 10

- Ask learners to arrange counters in the same manner and give you a number sentence verbally.
- Write the number sentence next to the counters using numbers and symbols only.

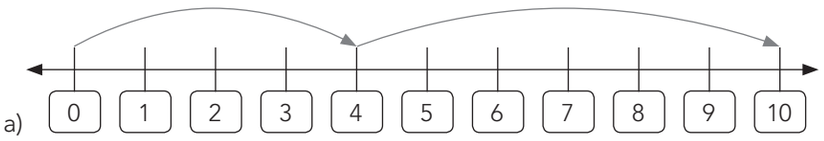
4. Classwork activity (25 minutes) (See next page)
5. Homework activity (5 minutes) (See next page)
6. Reflection on lesson

Term 2 Lesson 16: Addition – building up numbers up to 10

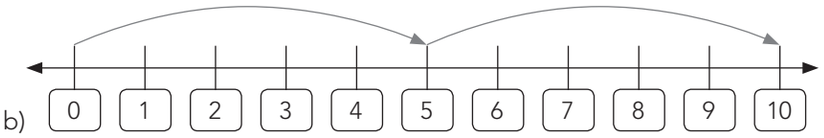
Classwork

1. Draw counters to show the following.
   a) 1 + 9 = (● ○ ○ ○ ○ ○ ○ ○ ○ ○)
   b) 2 + 8 = (● ● ○ ○ ○ ○ ○ ○ ○ ○)
   c) 3 + 7 = (● ● ● ○ ○ ○ ○ ○ ○ ○)
   d) 4 + 6 = (● ● ● ● ○ ○ ○ ○ ○ ○)
   e) 5 + 5 = (● ● ● ● ● ○ ○ ○ ○ ○)

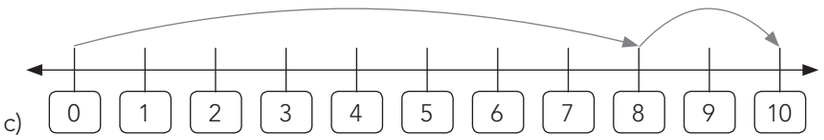
2. Write a sum for:



(4 + 6 = 10) ☐ + ☐ = ☐



(5 + 5 = 10) ☐ + ☐ = ☐



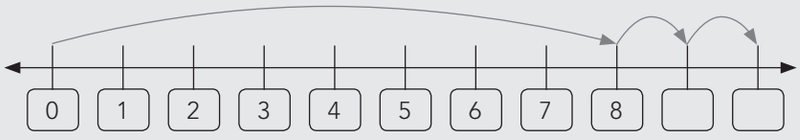
(8 + 2 = 10) ☐ + ☐ = ☐

3. Solve the following by colouring or drawing.
   a) I have 2 marbles and my friend has 8. How many marbles do we have altogether?
   ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ☐ + ☐ = ☐ (2 + 8 = 10)
   b) I have 4 pink flowers and my friend has 6 red flowers. How many flowers do we have altogether?
   ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ☐ + ☐ = ☐ (4 + 6 = 10)

Homework

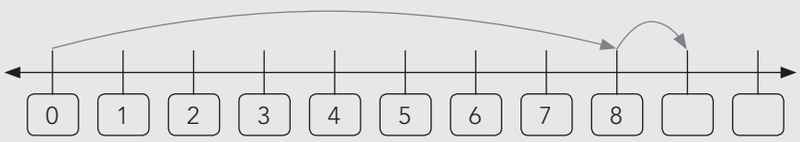
Fill in the numbers on the number line and then write a number sentence for each.

a)



(8 + 2 = 10)

b)



(8 + 1 = 9)

WEEK 5

LESSON 17: ADDITION AND SUBTRACTION – BUILDING UP AND BREAKING DOWN NUMBERS UP TO 10

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.7 Addition and subtraction, 1.13 Addition and subtraction.

Lesson vocabulary: Add, plus, more, and, altogether, count on, addition, minus, less, left, count back, subtract, number sentence, number pair, pattern.

Prior knowledge:
Learners should have been taught how to:

- Add and subtract up to 5 using concrete apparatus and pictures.
- Add up to 10 using concrete apparatus and pictures.

Concepts:

- Solve problems using concrete apparatus and pictures and explain solutions to problems involving addition and subtraction with answers up to ten.
- Use appropriate symbols (+, –, =).
- Use the following techniques when solving addition and subtraction (0–10) and explain solutions to problems: building up and breaking down numbers up to 10.

Resources: Unifix cubes, counters, number symbol cards (1–10) (see *Printable Resources*), flashcards +, *makes* and = (see *Printable Resources*).

DBE workbook activities relevant to this lesson:

- n/a

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Give learners Unifix cubes/counters in three colours. Ask learners to arrange Unifix cubes to show you three numbers that will make a number or result from subtracting from a number:

6

○ ○ ● ● ○ ○ and then say 2 + 2 + 2 = 6

○ ○ ● ● ○ ○ and then say 6 – 2 – 2 = 2

○ ○ ○ ○ ● ○ and then say 4 + 1 + 1 = 6

○ ○ ○ ○ ● ○ and then say 6 – 1 – 1 = 4

Do the same with 7, 8, and 9. Accept alternatives, learners don't have to work only with 2s and 1s.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use beans) reliably to 20.
- Count forwards and backwards in 10s from 10 to 50.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold cards with the correct answer.

	What is?	Answer
1.	1 less than 9?	8
2.	4 less than 7?	3
3.	3 less than 9?	6
4.	5 less than 6?	1
5.	0 less than 9	9

	Which is?	Answer
6.	1 more than 9?	10
7.	2 more than 0?	2
8.	3 more than 4?	7
9.	4 more than 4?	8
10.	0 more than 10?	10

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give the learners the number symbol cards 1–5, five counters, and the *take away* and = flashcards.
- Ask the learners to show you 5 take away 2 is 3 using the counters, and the flashcards to make a number sentence ● ● ● ● ● is five (5 take away 2 = 3).
- Ask learners to read the number sentence aloud as they manipulate the counters.
- Do the same with other numbers.

Activity 2: Learners work in groups

- Give the learners a variety of coloured counters. Ask them to put the counters in a display to show pairs of numbers than make 10.
- Revise the combinations that will give you 10.
- Now look at how these pairs of numbers can be used to calculate subtraction from 10.
- (The rule of number that learners are working with here is that addition and subtraction are inverse operations – you do not talk about this rule, but it will become evident to them from the pattern of the number pairs.)

● 1 + 9 = 10 ● ● ● ● ● ● ● ● ●	● ● ● ● ● ● ● ● ● ●	10 – 1 = 9
● ● 2 + 8 = 10 ● ● ● ● ● ● ● ●	● ● ● ● ● ● ● ● ● ●	10 – 2 = 8
● ● ● 3 + 7 = 10 ● ● ● ● ● ● ●	● ● ● ● ● ● ● ● ● ●	10 – 3 = 7
● ● ● ● 4 + 6 = 10 ● ● ● ● ● ●	● ● ● ● ● ● ● ● ● ●	10 – 4 = 6
● ● ● ● ● 5 + 5 = 10 ● ● ● ● ●	● ● ● ● ● ● ● ● ● ●	10 – 5 = 5

- After learners have worked with the counters, draw a table like this on the board and show learners how they can find pairs of numbers using the left and right hand columns of the table to build up number bonds.

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

a) 2 + 7 = 9
b) 1 + 8 = 9
c) etc.

- Show how you use the number in the left hand column first and then find the "pair" to make the correct total, which in this case is 9. Then you write the sum.
- Make a table of bonds of other numbers up to ten, if you have time. Allow as many different learners as possible to participate in the activity.

Activity 3: OPTIONAL Whole class activity

- If you have time, ask learners to show you some different combinations of three numbers that will make 10.
- E.g.

1 + 4 + 5 ● ● ● ● ● ● ● ● ●	2 + 2 + 6 ● ● ● ● ● ● ● ● ● ●
3 + 3 + 4 ● ● ● ● ● ● ● ● ●	3 + 2 + 5 ● ● ● ● ● ● ● ● ●

4. Classwork activity (25 minutes) (See next page)
5. Homework activity (5 minutes) (See next page)
6. Reflection on lesson

Term 2 Lesson 17: Addition and subtraction – building up and breaking down numbers up to 10

Classwork

1. Use the pictures to write your own number sentences.

a)	★★★★★★	□ – □ – □ = □	(6 – 2 – 2 = 2)
b)	🐄🐄🐄🐄🐄🐇🐇	□ – □ – □ = □	(7 – 1 – 1 = 5)
c)	✈✈✈✳✳✳⛵	□ – □ – □ = □	(7 – 1 – 3 = 3)
d)	✋✋🖌🖌🖌🖌🖌🖌✳	□ – □ – □ = □	(9 – 1 – 6 = 2)

2. Find pairs of numbers to make the following totals:

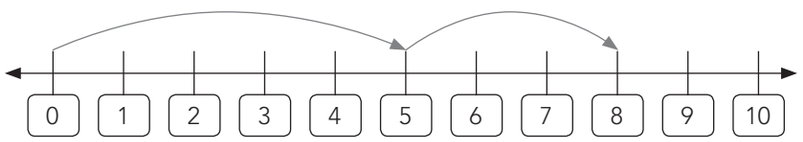
6		
2	0	(2, 4)
3	6	(3, 3)
5	3	(5, 1)
1	1	(1, 5)
6	5	(6, 0)
4	2	(4, 2)
0	4	(0, 6)

7		
6	3	(6, 1)
2	7	(2, 5)
4	0	(4, 3)
7	2	(7, 0)
3	5	(3, 4)
1	3	(1, 6)
0	6	(0, 7)
5	1	(5, 2)

8		
2	8	(2, 6)
5	5	(5, 3)
1	4	(1, 7)
7	7	(7, 1)
4	3	(4, 4)
6	6	(6, 2)
8	2	(8, 0)
0	1	(0, 8)
3	0	(3, 5)

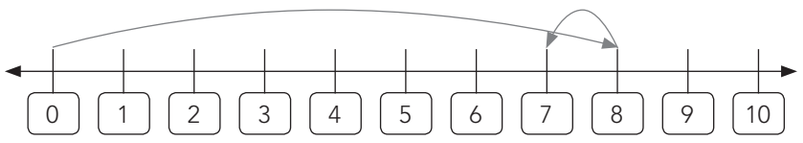
3. Write the number sentence for:

a)



(5 + 3 = 8)

b)



(8 – 1 = 7)

Homework

Use two colours to show the following:

1. ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ — 2 + 8 = □ (10)
2. ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ — 6 + 3 = □ (9)
3. ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ — 10 – 5 = □ (5)
4. ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ — 10 – 9 = □ (1)

LESSON 18: DOUBLING AND HALVING

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.6 Problem solving techniques, 1.12 Techniques (methods or strategies). **Lesson vocabulary:** How many, double, plus, halve, half, take away, doubling, halving, doubled, halved, same. **Prior knowledge:** Learners should have been taught how to: • Do addition using doubling (1–5). **Concepts:** • Order a given set of selected numbers up to 10. • Use the doubling and halving techniques when solving addition and subtraction problems (0–10) and explaining solutions to problems **Resources:** Pictures of tricycles/cows/hands (collect from old magazines/newspapers and bring them to the lesson) or doubles hand out (see *Printable Resources*), Unifix cubes, counters. **DBE workbook activities relevant to this lesson:** • DBE worksheet 47 (pp. 98 and 99). **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Give each learner 10 Unifix cubes. Ask them to show you 1 Unifix cube. Ask them to double the number of Unifix cubes. (2) Ask them to show you 2 Unifix cubes. Ask them to double the number of Unifix cubes (4). Do the same with other numbers. Then do the same activity but halve the number of Unifix cubes. **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use stones) reliably to 20.
- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	Give a number between the two given numbers. Is there only one number?	Answer
1.	1 and 4?	2 and 3
2.	2 and 5?	3 and 4
3.	5 and 7?	6
4.	3 and 5?	4
5.	4 and 7?	5 and 6

	Give a number between the two given numbers. Is there only one number?	Answer
6.	7 and 9?	8
7.	8 and 10?	9
8.	5 and 8?	6 and 7
9.	6 and 8?	7
10.	0 and 3?	1 and 2

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give each group of learners a copy of the doubles hand out (see *Printable Resources*).
- Show the learners pictures of two tricycles. Ask: *How many wheels are there?* (3 and 3 which makes six.)
- Show the learners pictures of two cows. Ask: *How many legs are there?* (4 and 4 = 8.)
- Show the learners pictures of two hands. Ask: *How many fingers are there?* (5 and 5 = 10.)
- Ask the learners: *Who remembers what word we use when we add the same number to itself?* (Answer: Double. Discuss this term with learners and allow a few of them to explain what doubling means using their own words.)
- Do more examples of doubling as above with other numbers but include the word *double.* (E.g. Double 2/ Double 6.)

Activity 2: Learners work in groups

- Ask learners to put out two counters: *What do you see?* (Answer: 2 counters.)
- Ask learners to move one of the counters to the other side of the desk: *What do you see now?* (Answer: 1 counter and 1 counter.)
- Ask learners to put out four counters: *What do you see?* (Answer: 4 counters.)
- Ask learners to move two counters to the other side of the desk. *What do you see now?* (Answer: 2 counters and 2 counters.)
- *What do you notice about we did?* (Answer: We split up the counters into 2 groups.)
- Ask the learners: *What did you notice about the two groups* (Answer: They were the same/they had the same number of counters.)
- Explain that: *We halved the group, which means we made one group into two groups that were exactly the same.*
- Discuss the term *halving* with learners and allow a few of them to explain what *halving* means using their own words.
- Do more examples of halving as above with other numbers but include the word *halve.* (E.g. Halve 6/Halve 10.)

Activity 3: OPTIONAL Whole class activity

- If you have time, write these questions on the board, learners write the answers and then discuss answers with the whole class.

1. Double 1 is ☐ (2) Double 2 is ☐ (4) Double 3 is ☐ (6).

2. Half of 4 is ☐ (2) Half of 6 is ☐ (3) Half of 10 is ☐ (5).

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

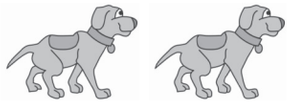
5. Homework activity (5 minutes) (See next page)

6. Reflection on lesson

Term 2 Lesson 18: Doubling and halving

Classwork

1. Answer the questions in the table:

How many girls do you see? ☐ (1) 	How many girls do you see now? ☐ (2)  Double 1 is 2. What will half of 2 be? ☐ (1)	How many feet do you see? ☐ (2) 	How many feet do you see now? ☐ (4)  We say double 2 is 4. What will half of 4 be? ☐ (2)
How many wheels do you see? ☐ (3) 	How many wheels do you see now? ☐ (6)  We say double 3 is 6. What will half of 6 be? ☐ (3)	How many legs are there? ☐ (4) 	How many legs do you see now? ☐ (8)  We say double 4 is 8. What will half of 8 be? ☐ (4)

Homework

1. Double 4 is ☐ (8) Double 5 is ☐ (10)
2. Half of 6 is ☐ (3) Half of 8 is ☐ (4)

LESSON 19: ADDITION AND SUBTRACTION PROBLEMS

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.7, 1.13 Addition and subtraction.

Lesson vocabulary: Add, plus, more, subtract, minus, take away, less, how many, more than, less than, equals, left, altogether, number sentence, addition, subtraction.

Prior knowledge:
Learners should have been taught how to:

- Solve word problems in context.
- Explain own solutions to problems involving addition and subtraction with answers up to 5.

Concepts:

- Solve word problems in context and explain own solutions to problems involving addition, subtraction with answers up to 10.
- Add up to 10.
- Subtract from 10.
- Use appropriate symbols +, –, = .

Resources: Counters

DBE workbook activities relevant to this lesson:

- DBE worksheet 46 (pp. 96 and 97).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Give learners similar examples to the ones in Activity 2 and Activity 3. Assist them in solving each problem by using counters. Encourage learners to explain what they are doing.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use beans) reliably to 20.
- Count forwards and backwards in 5s from 5 to 50.

1.2 Recall and strategies (10 minutes)

Read out the questions one at a time. Learners hold up the more than or less than flashcard that gives the correct answer.

		Answer
1.	2 is _____ 0?	more than
2.	5 is _____ 8?	less than
3.	3 is _____ 4?	less than
4.	9 is _____ 6?	more than
5.	7 is _____ 2?	more than

		Answer
6.	8 is _____ 9?	less than
7.	2 is _____ 10?	less than
8.	6 is _____ 8?	less than
9.	10 is _____ 5?	more than
10.	3 is _____ 2	more than

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- This is a quick recap activity. Make sure that learners work through it quickly, so that you have enough time to spend on the word problems that are the main activity in this lesson.
- Give the learners ten counters. Ask them to arrange their counters to show you the following:
- First they should show the addition and then they use the same counters to "undo" the addition by subtracting. (Check the learners' displays of counters but do not draw them on the board. Counters in brackets show the counters that should be removed to show subtraction.)

1 + 8 = 9	● ● ● ● ● ● ● ● ●	9 – 8 = 1	● (● ● ● ● ● ● ● ●)
2 + 5 = 7	● ● ● ● ● ● ●	7 – 5 = 2	● ● (● ● ● ● ●)
3 + 7 = 10	● ● ● ● ● ● ● ● ● ●	10 – 3 = 7	● ● ● ● ● ● ● (● ● ●)
4 + 4 = 8	● ● ● ● ● ● ● ●	8 – 4 = 4	● ● ● ● (● ● ● ●)
5 + 1 = 6	● ● ● ● ● ●	6 – 5 = 1	● (● ● ● ● ●)

Activity 2: Whole class activity

- Give the learners the following word problem, and draw a simple picture to illustrate it on the board.
- *6 birds sit on the wall. 4 fly away. How many birds are left?*
- The learners use their counters to work out the answer. They put down 6 counters and then take away 4 and then tell you that they have 2 left.
- Discuss the question while you read it together with the class – ask different learners to explain to you how they know what number sentence to write in order to find the solution to the word problem.
- Follow the same procedure with other examples such as:
  1. 8 cats lie outside in the sun. 3 cats go inside. How many cats are left outside?
  2. 9 dogs are running around in the road. 5 dogs go home. How many are still in the road?
  3. I bought 7 sweets. I ate 2. How many are left?

Activity 3: Whole class activity

Give the learners the following word problem, and draw a simple picture to illustrate it on the board.

- Maria has 6 sweets. Her dad gives her 2 more. How many sweets does she have now?
- The learners use their counters to work out the answer. They put down 6 counters and then add 2 more and then tell you that they now have 8.
- The learners might count ALL the counters to get the answer.
- If they count all ask if there is a quicker way to count – they could see that counting ON is possible and saves time, but only if they understand this. Let them count all until they are ready to count on.
- Keep working at building the mental mathematics reasoning of the learners – choosing best strategies for addition.
- Follow the same procedure with other examples, such as:
  1. Khanya has 5 red marbles and 3 green marbles. How many marbles does she have?
  2. There are 4 blue birds in the cage and 5 yellow birds in the cage. How many birds altogether?
  3. The teacher has 7 pencils. She finds 2 more. How many pencils does she have now?

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

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

6. Reflection on lesson

Term 2 Lesson 19: Addition and subtraction problems

In this activity learners are asked to do drawings as well as write number sentences. You should look carefully at the work the learners are doing while you circulate in the class and encourage any learners that are ready simply to write the numeric solution to the word problem. This is to wean them off doing a drawing, since drawings are not an efficient way of doing calculations.

Classwork

1. Solve the following by drawing a picture and then write a number sentence.
   a) Linda has 6 oranges. Sipho has 2 oranges. How many oranges?
      (* * * * * * * * 6 + 2 = 8)
   b) Linda has 10 oranges. She gives 5 oranges away. How many oranges does she have now?
      (~~* * * * *~~ * * * * * 10 – 5 = 5)
   c) Linda has 5 marbles. Sipho has 4 marbles. How many marbles?
      (* * * * * * * * * 5 + 4 = 9)
   d) Sipho has 8 marbles. He gives 3 marbles away. How many marbles does he have now?
      (~~* * *~~ * * * * * 8 – 3 = 5)
   e) Linda has 1 book. Sipho has 5 books. How many books?
      (* * * * * * 1 + 5 = 6)
   f) Tom has 10 suckers. He gives 3 suckers away. How many suckers does he have now?
      (~~* * *~~ * * * * * * * 10 – 3 = 7)

Homework

Draw the picture and then write the number sentence.

1. I bought 3 apples and 6 bananas. How many pieces of fruit did I buy?
   (* * * * * * * * * 3 + 6 = 9)

2. I had 10 sweets. I ate 2 sweets. How many sweets did I have left?
   (~~* *~~ * * * * * * * * 10 – 2 = 8)

LESSON 20: ADDITION AND SUBTRACTION PROBLEMS

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.7 Addition and subtraction. **Lesson vocabulary:** Add, plus, more, subtract, minus, take away, less, how many, more, less, equals, left, altogether, number sentence, addition, subtraction. **Prior knowledge:** Learners should have been taught how to: • Solve word problems in context. • Explain own solutions to problems involving addition and subtraction with answers up to 5. **Concepts:** • Solve word problems in context and explain own solutions to problems involving addition, subtraction with answers up to 10. • Add up to 10 • Subtract from 10 • Use appropriate symbols +, –, = . **Resources:** Scrap paper and crayons. **DBE workbook activities relevant to this lesson:** • n/a **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Give learners similar examples to the ones in Activity 2 and Activity 3. Assist them in solving each problem by using counters. Encourage learners to explain what they are doing. **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use stones) reliably to 20.
- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

Write the questions below on the board one at a time. Learners use number cards and hold up the card that gives the correct answer. Learners can use their fingers to solve the problems if needed.

	What is?	Answer
1.	2 + 4 = ?	6
2.	5 + 5 = ?	10
3.	3 + 1 = ?	4
4.	2 + 7 = ?	9
5.	0 + 5 = ?	5

	What is?	Answer
6.	7 – 4 = ?	3
7.	5 – 3 = ?	2
8.	9 – 4 = ?	5
9.	10 – 2 = ?	8
10.	6 – 0 = ?	6

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give the learners scrap paper and crayons. Ask them to draw the following and then write the number sentence to express what has been done:
  - Draw 6 counters. Draw 2 more. Write the number sentence. (6 + 2 = 8)
  - Draw 10 counters. Make them 2 less. Write the number sentence. (10 – 2 = 8)
  - Linda has 5 sweets. Themba has two more. How many sweets does Themba have? Write the number sentence. (5 + 2 = 7)
  - Linda has 9 sweets. Themba has 3 less. How many sweets does Themba have? Write the number sentence. (9 – 3 = 6)

Activity 2: Whole class activity

- The learners solve the problems by drawing pictures and writing number sentences.
- Phumi has 3 bananas. Themba has 5 bananas. How many bananas *less* does Phumi have than Themba? (5 – 3 = 2)
- Liam has some apples. Saul gave him 4 more. Now he has 9 apples. How many apples did he have in the beginning? (9 – 4 = 5)
- There are 5 children on the see-saw. Three of them are on one side. How many of them are on the other side? (5 – 3 = 2)
- Thembi had eight scones. She gave some to her friends and now she has 3 left. How many did she give away? (8 – ? = 3, she has 5 left)
- Ask learners to make up their own word problems for the rest of the class to solve.
- Allow several different learners to do this. Guide them with the choice of the numbers used in the problem if necessary but allow them to use their own creativity to make up the questions.

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

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

6. Reflection on lesson

Term 2 Lesson 20: Addition and subtraction problems

In this activity learners are again asked to do drawings and then to write number sentences. You should look carefully at the work the learners are doing while you circulate in the class and encourage any learners that are ready simply to write the numeric solution to the word problem. Remember that drawings are not an efficient way of doing calculations.

Classwork

1. Solve the following by drawing a picture and then write a number sentence.
   a) Mahloa has 5 apples. Ishmail has 2 apples. How many apples?
      (* * * * * * * 5 + 2 = 7)
   b) Mahloa has 7 sweets. Ishmail has 9 sweets. How many more sweets does Ishmail have than Mahloa?
      (✎✎✎✎✎✎✎* * 9 – 7 = 2)
   c) Kara has some cupcakes. Rob gives her 6 more cupcakes. Now she has 10. How many cupcakes did Kara have in the beginning?
      (* * * * ✎✎✎✎✎✎ 10 – 6 = 4)
   d) Kheni has 10 marbles. He gives 7 marbles to Khanya. How many marbles does Kheni have now?
      (* * * ✎✎✎✎✎✎✎ 10 – 7 = 3)
   e) Zack has 5 sweets. Keith has 3 more sweets than Zack. How many sweets does Keith have?
      (* * * * * * * * 5 + 3 = 8)
   f) Kim had 7 apples. John gave her some apples. She now has 10 apples. How many apples did John give her?
      (✎✎✎✎✎✎✎* * * 10 – 7 = 3)

Homework

Draw the picture and then write the number sentence.

1. The shopkeeper has 4 green apples and 5 red apples. How many apples does he have altogether?
   (* * * * * * * * * 4 + 5 = 9)

2. I had 6 balloons. Three popped. How many balloons do I have left?
   (* * * ✎✎✎ 6 – 3 = 3)

WEEK 6

LESSON 21: GEOMETRIC PATTERNS

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 2.1 Geometric patterns. **Lesson vocabulary:** Geometric pattern, pattern, copy, extend, repeat, more, less, analyse (a pattern), groups (of shapes). **Prior knowledge:** Learners should have been taught how to: • Copy and extend simple patterns by using physical objects and drawings. **Concepts:** • Use calculation strategies to add or subtract efficiently (doubling and halving). • Compare numbers up to 10. • Copy and extend simple patterns made with objects and with drawings of lines, shapes or objects. **Resources:** Pattern strips (see *Printable Resources*), shape cut-outs (see *Printable Resources*), beads and string. **DBE workbook activities relevant to this lesson:** • DBE worksheet 64a (pp. 136 and 137). **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: For learners who struggle with this area of work, do more revision with concrete apparatus. Ask the learners to make their own patterns using the objects provided. Assist them to verbalise the pattern. E.g. *I put down a pencil, then a crayon, then another pencil, then another crayon. Now I have repeated the pattern.* **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use counters) reliably to 20.
- Count forwards and backwards in 10s from 10 to 50.

1.2 Recall and strategies (10 minutes)

(Learners use number cards and hold up the card that gives the correct answer.)

	What is?	Answer
1.	3 less than 5?	2
2.	Double 4?	8
3.	5 more than 1?	6
4.	Half of 6?	3
5.	1 less than 10?	9

	What is?	Answer
6.	Double 5?	10
7.	6 less than 10?	4
8.	Half of 2?	1
9.	0 less than 9?	9
10.	Double 2?	4

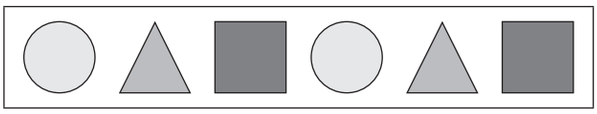
2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Whole class activity

Copy this pattern strip (below) on the board.



Ask the learners the following questions to help them focus on the pattern and analyse the way in which it is made:

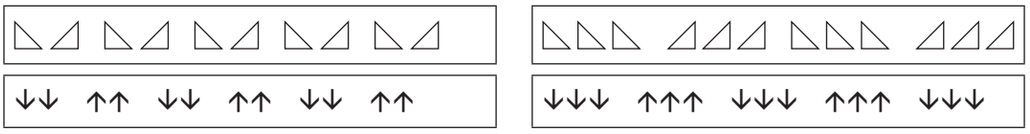
- *What shapes do you see in this pattern?*
- *Are they all the same colour? (If you used different colours, then discuss the colours.)*
- *Do you see one or more shapes in the pattern?*
- *Do the shapes all face the same way?*
- *Is there the same number of shapes in each group?*
- *How many shapes are there in each group?*
- *Are all the shapes the same size?*

Activity 2: Learners work in groups

- Give each group of learners an assortment of cut out shapes (you have made this for them using the *Printable Resource*).
- Learners use different cut-out shapes to make up a group of three shapes.
- Now ask learners to make a pattern using the group of three shapes that they made. The pattern must grow by repeating the group of cut-out shapes in exactly the same way.
- Ask the learners to explain their particular patterns to you. (For example, one learner may have made a group with a triangle and two circles, and repeating this group. Another learner may have made a group of shapes with a square, two triangles and a circle, and then repeating this group.)

Activity 3: Learners work in groups

- Give the learners the pattern strips and ask them to copy the patterns into their mathematics books.
- Learners copy patterns of repeated identical groups, where each group has identical pictures but the position of the pictures in the group changes.
  E.g.



- Ask the learners to explain each of the patterns to you.
- If there is time, ask the learners to come to the board and draw patterns of their own and to explain how the patterns are made. When they do this they will be practising using the mathematical language of patterns.

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

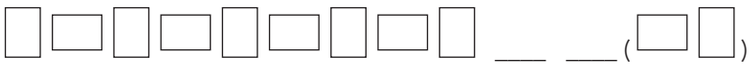
5. Homework activity (5 minutes) (See next page)

6. Reflection on lesson

Term 2 Lesson 21: Geometric patterns

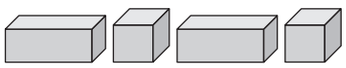
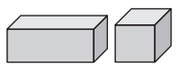
Classwork

1. Extend the pattern.

a)  ___ ___ ()

b) →↑→↑→↑→↑→↑→↑→↑→↑→↑→ ___ ___ (↑→)

c)  ___ ___ ()

d)  ___ ___ ()

Homework

1. In your homework book create three of your own patterns using shapes.

(Learners answers will vary – look at their patterns and discuss some of them with the class.)

LESSON 22: 2s PATTERNS TO 20

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.12 Techniques (methods or strategies), 1.8 and 1.14 Repeated addition leading to multiplication. **Lesson vocabulary:** Number line, number board, multiples (of 2), twos, after, before, pattern, how many, groups, lots of, equals, double, half, odd numbers, even numbers. **Prior knowledge:** Learners should have been taught how to: • Copy and extend simple patterns by using physical objects and drawings. **Concepts:** • Use calculation strategies to add or subtract efficiently (doubling and halving). • Counting in twos from any multiple of 2 between 0 and 20. **Resources:** 1–20 number boards (see *Printable Resources*), 0–20 number line (see *Printable Resources*), 1–20 number cards (see *Printable Resources*), counters. **DBE workbook activities relevant to this lesson:** • DBE worksheet 51 (pp. 108 and 109). **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Give the learners the 1–50 number boards and ask them to place counters on the twos. Let them count out aloud while doing it. Give each learner a number line and let them count in twos by making hoops on the number line with their fingers. **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (stones) reliably to 20.
- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	Double 5?	10
2.	Double 2?	4
3.	Double 4?	8?
4.	Double 3?	6
5.	Double 1?	2

	What is?	Answer
6.	Half of 6?	3
7.	Half of 10?	5
8.	Half of 4?	2
9.	Half of 8?	4
10.	Half of 2?	1

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give the learners a 1–20 number board.

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

- Ask them to place counters on 2, 4, 6, … , 20.

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

- Ask them to count in twos (2, 4, 6, 8, 10, 12, 14, 16, 18, 20).

Activity 2: Whole class activity

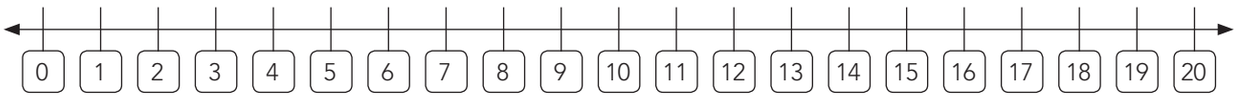
Number line activity – on the floor. Call a few learners to the front to participate in this activity. Let them take turns.

- Place or draw a number line (0–20) on the floor. Ask the learners to stand on zero.
- Ask the learners to take one step forward to 1 so that they can understand that zero to one is one step.
- Then ask them to stand on zero and take two steps forward.
- Ask learners to say the number every time they step on the multiples of 2. (Step on 2, say 2; = 2; step on 4, say 4; … to 20).
- Explain to them that these are the multiples of two, they are even numbers. They are counting in twos.

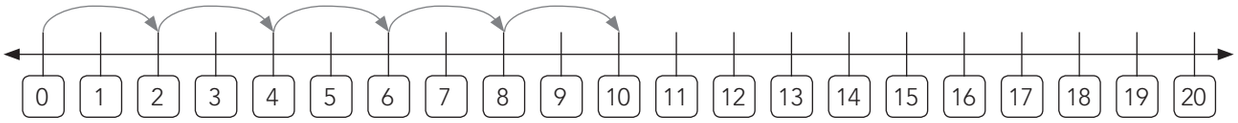
Activity 3: Whole class activity

Number line activity – on the board.

- Draw a number line (0–20) on the board, with zero and the odd numbers labelled.



- Ask the learners to show you where the zero is.
- Ask the learners to show how to move from 0 to 1, then 1 to 2 and so on. Counting the steps as they move. Fill in the missing numbers.
- Ask learners to count in 2s using the number line. They should say the number every time they land on the multiples of 2. (Land on 2, say 2; land on 4, say 4; … to 20.)
- Draw 'hops' above the number line to show the movement involved in counting in 2s and the numbers that you land on when you count in 2s on a number line.
- Some of the hops have been marked on the number line below. You should allow learners the chance to come up to the board and mark the hops.



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

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

6. Reflection on lesson

Term 2 Lesson 22: 2s patterns to 20

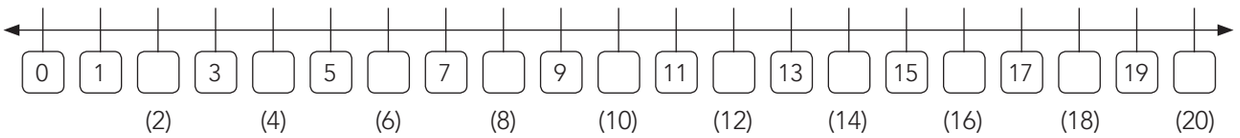
Note that the solutions are shown here by putting a tick in the block that should be shaded. Learners can colour the blocks using any colours they choose.

Classwork

1. Complete the pattern by colouring the multiples of 2.

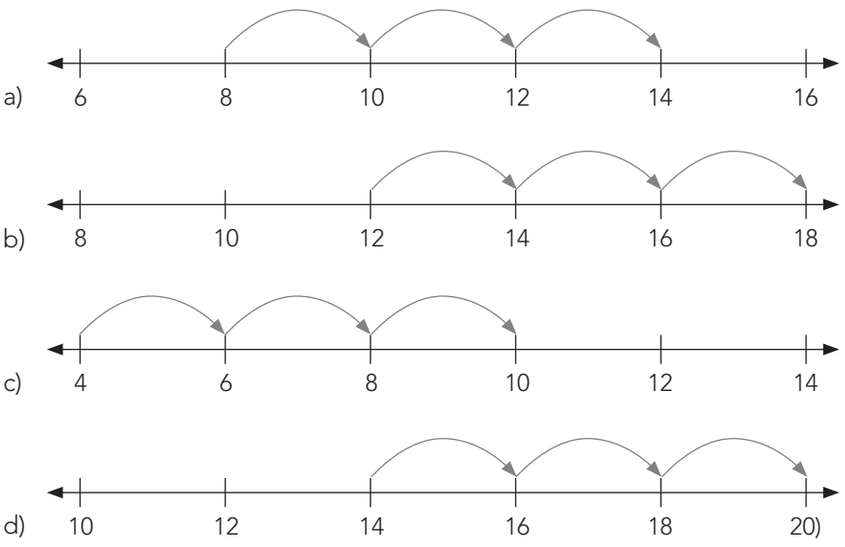
1	2 (✓)	3	4 (✓)	5	6 (✓)	7	8 (✓)	9	10 (✓)
11	12 (✓)	13	14 (✓)	15	16 (✓)	17	18 (✓)	19	20 (✓)

2. Complete the number line:



3. Draw hops on a number line to show the following:
   a) 10, 12, 14
   b) 14, 16, 18
   c) 6, 8, 10
   d) 16, 18, 20

(Solutions



Homework

Note that the solutions given here go beyond 20. Some learners may be able to count in 2s way beyond 20. You should encourage them to do this, but do not put pressure on others.

1. Write the multiples of 2. Start at 4. (4, 6, 8, 10, 12, 14, 16, 18, 20, 22)
2. Write the multiples of 2. Start at 6. (6, 8, 10, 12, 14, 16, 18, 20, 22, 24)
3. Write the multiples of 2. Start at 12. (12, 14, 16, 18, 20, 22, 24, 26, 28, 30)

LESSON 23: 5s PATTERNS TO 20

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 2.2 Number patterns.

Lesson vocabulary: Number line, number board, multiples (of 5), fives, after, before, pattern, how many, smallest, biggest, equals, more than, less than, sequence, extend, describe.

Prior knowledge:
Learners should have been taught how to:

- Count in ones from any number between 1 and 20.
- Do repeated addition of twos, threes, fours and fives up to 10.

Concepts:

- Counting forwards in 5s from any multiple of 5 between 0 and 50.
- Copy, extend and describe simple number sequences to 50.

Resources: 1–20 number boards (see *Printable Resources*), 0–20 number line (see *Printable Resources*), 1–50 number cards (see Term 1 and 2 *Printable Resources*), counters.

DBE workbook activities relevant to this lesson:

- DBE worksheet 56 (pp. 118 and 119).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Give the learners the 1–50 number boards and ask them to use their fingers to hop from 1 to 5 and place a counter on 5. Hop from 5 to10 and place a counter on 10. Hop from 10 to15 and place a counter on 15. Hop from 15 to 20 and place a counter on 20. Let them count out loud while doing it. Give each learner a number line and let them count in fives by making hoops on the number line with their fingers.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use counters) reliably to 20.
- Count forwards and backwards in 5s from 5 to 50.

1.2 Recall and strategies (10 minutes)

Learners hold up the more than/less than flashcard that gives the correct answer.

		Answer
1.	8 is _____ 0?	more than
2.	3 is _____ 9?	less than
3.	2 is _____ 8?	less than
4.	1 is _____ 5?	less than
5.	10 is _____ 8?	more than

		Answer
6.	0 is _____ 7?	less than
7.	9 is _____ 10?	less than
8.	4 is _____ 6?	less than
9.	9 is _____ 1?	more than
10.	6 is _____ 0?	more than

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give the learners a 1–20 number board.

- Ask them to touch and count 1, 2, 3, 4 and then place a counter on number 5. Touch and count 6, 7, 8, 9 and then place a counter on 10. Touch and count 11, 12, 13, 14 and then place a counter on 15. Touch and count 16, 17, 18, 19 and then place a counter on 20.
- Ask them to touch and count in fives (5, 10, 15, 20).

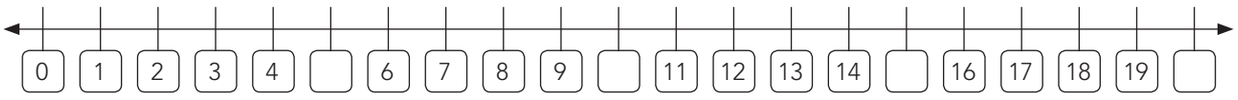
Activity 2: Whole class activity

- Place or draw a number line on the floor. Ask one of the learners come up to the front and to stand on zero.
- Ask them to take one step forward to one so that they can understand that zero to one is one step.
- Then ask them to stand on zero and take five steps forward.
  Ask them to place a marker on number 5.
- Ask them to take another 5 steps forward and then place a marker on 10.
- Ask them to take another 5 steps forward and then place a marker on 15.
- Ask them to take another 5 steps forward and then place a marker on 20.
- Learners then read the numbers as they step from 0 to 5, 5 to 10, 10 to 15, and 15 to 20.
  Explain to them that these are the multiples of five. They are counting in fives.

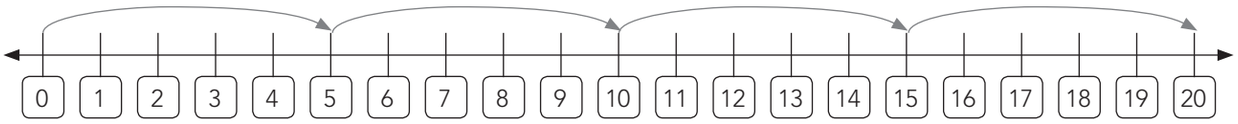
Activity 3: Whole class activity

Number line activity – on the board.

- Draw a number line (0–20) on the board, labelled in the following way (leave out the multiples of 5).



- Ask the learners to show you where the zero is. Complete the labelling of the number line.
- Ask the learners to show how to move from 0 to 1, then 1 to 2 and so on. Counting the steps as they move.
- Ask learners to count in 5s using the number line. They should say the number every time they land on the multiples of 5. (Land on 5, say 5; land on 10, say 10; … to 20.)
- Draw hops on the number line to show the counting in 5s along the number line. Allow the learners to participate in this activity.



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

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

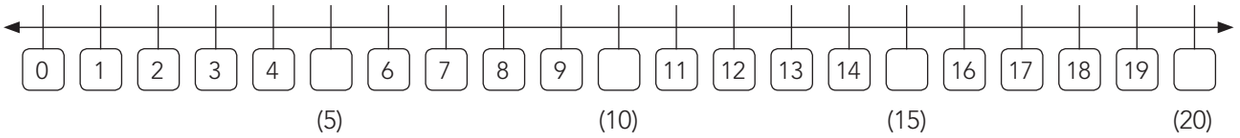
6. Reflection on lesson

Term 2 Lesson 23: 5s patterns to 20

Note that the solutions are shown here by putting a tick in the block that should be shaded. Learners can colour the blocks using any colours they choose.

Classwork

1. Complete the number line:



2. Complete the pattern by colouring the multiples of 5.

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

3. Colour all the multiples of 5.

16	17	18	19	20 (✓)	21	22	23	24	25 (✓)
26	27	28	29	30 (✓)	31	32	33	34	35 (✓)

31	32	33	34	35 (✓)	36	37	38	39	40 (✓)
41	42	43	44	45 (✓)	46	47	48	49	50 (✓)

Homework

1. Colour groups of 5 counters. Use different colours for each group.
   (○ ○ ○ ○ ○)(○ ○ ○ ○ ○)(○ ○ ○ ○ ○)(○ ○ ○ ○ ○)(○ ○ ○ ○ ○)(○ ○ ○ ○ ○)
   (○ ○ ○ ○ ○)(○ ○ ○ ○ ○)(○ ○ ○ ○ ○)(○ ○ ○ ○ ○)

2. How many groups did you make? ☐ groups. (10)

2. Write three multiples of 5. Start at 0. (0, 5, 10)

3. Write three multiples of 5. Start at 10. (10, 15, 20)

LESSON 24: 10s PATTERNS

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Counts forwards and backwards, 1.16 Mental mathematics, 2.2 Number patterns.

Lesson vocabulary: Tens, groups, interval, number line, number sequence.

Prior knowledge:
Learners should have been taught how to:

- Count forwards and backwards in ones from any number between 1 and 20.
- Copy, extend and describe simple number sequences in ones between 0 and 20.

Concepts:

- Counts forwards in tens from any multiple of 10 between 0 and 50.
- Copy, extend and describe simple number sequences between 0 and 50.

Resources: Counters, Unifix cubes, string, containers.

DBE workbook activities relevant to this lesson:

- DBE worksheet 59 (pp. 124 and 125).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: For learners who struggle with this area of work, do more revision with concrete apparatus. Ask the learners to group a variety of counters in tens and put them into containers and then help them to count in tens.

Give each group a variety of objects to count and 5 containers.

- Ask the learners to count 10 objects and place them in a container. Do this until all five containers have ten objects. Count the counters in the containers in tens.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use stones) reliably to 20.
- Count forwards and backwards in 10s from 10 to 50.

1.2 Recall and strategies (10 minutes)

Read out each question. Learners hold up the *more than* or *less than* flashcard that gives the correct answer.

		Answer
1.	4 is _____ 1?	more than
2.	9 is _____ 10?	less than
3.	6 is _____ 8?	less than
4.	5 is _____ 3?	more than
5.	8 is _____ 7?	more than

		Answer
6.	3 is _____ 6?	less than
7.	0 is _____ 1?	less than
8.	7 is _____ 10?	less than
9.	9 is _____ 2?	more than
10.	4 is _____ 0?	more than

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give the learners 50 counters and pieces of string, or use Unifix cubes (if you have them).
- Ask them to make groups of 10. Put a piece of string around each group of 10.
- Ask the learners to count with you: *10, 20, 30, 40, 50*.
- Discuss the counting pattern with the class – you are counting in tens.
- Talk about the counting you have been doing over the past three days – you counted in 2s, then 5s and now 10s.
- Ask: *What do you notice about the counting patterns we have made?* (Discuss all answers – such as, when I count in 2s the numbers do not grow as quickly as when I count in 5s or in 10s. This is because the jumps I take are smaller. Etc.)

Activity 2: Whole class activity

- Ask the learners the following: *If one child has 10 fingers, how many fingers do two children have?*
- Do the same with 3, 4, and 5 children.
- Use learners in the front of the class to demonstrate so that they can participate.
- Ask: *How many learners do we need if we want to count in 10s to 20 on fingers?* (2)
- Ask: *How many learners do we need if we want to count in 10s to 50 on fingers?* (5)
- Revise the other counting patterns that you have done over the past 3 days in the same way, if you have time. Ask questions that make leaners think about the counting patterns.
- When learners stand together, each hand added adds a 5 to the counting pattern.
- Ask: *How many learners do we need if we want to count in 5s to 20 on fingers?* (2)
- Ask: *How many learners do we need if we want to count in 5s to 50 on fingers?* (5)
- Each learner has 10 fingers – so if they count in 2s we do not need so many learners to show counting up to 20.
- Ask: *How many learners do we need if we want to count in 2s to 20 on fingers?* (2)
- Ask: *When we have 2 learners standing together, how many different ways can we count to 20 on fingers?* (3 – in 2s, 5s and 10s)

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

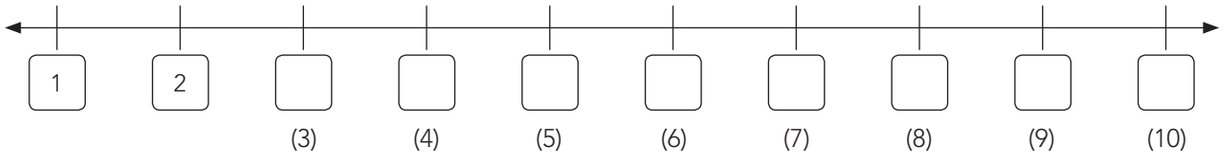
5. Homework activity (5 minutes) (See next page)

6. Reflection on lesson

Term 2 Lesson 24: 10s patterns

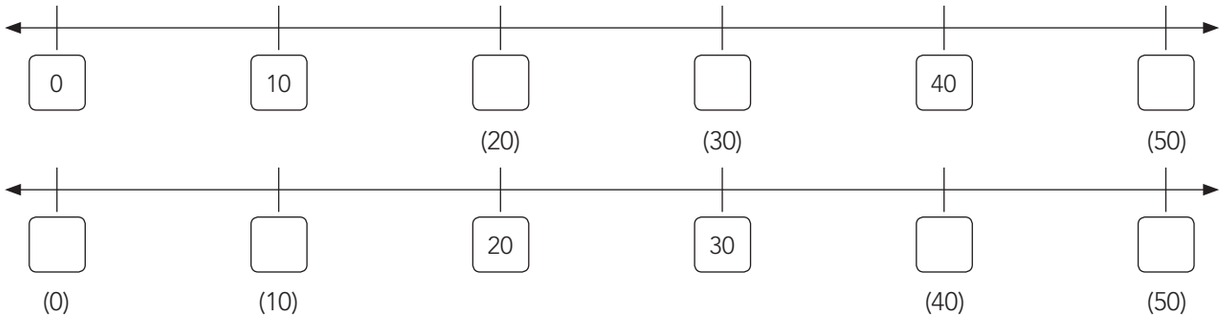
Classwork

1. Fill in the missing numbers.



2. Draw 10 beads in each space.

3. Complete the number lines:



Homework

1. Colour groups of ten counters. Use different colours for each group.
   (○ ○ ○ ○ ○ ○ ○ ○ ○ ○)(○ ○ ○ ○ ○ ○ ○ ○ ○ ○)(○ ○ ○ ○ ○ ○ ○ ○ ○ ○)
   (○ ○ ○ ○ ○ ○ ○ ○ ○ ○)(○ ○ ○ ○ ○ ○ ○ ○ ○ ○)

2. How many groups of ten did you make? ☐ groups of ten (5)

WEEK 7

LESSON 25: 10S PATTERNS USING A NUMBER BOARD

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 2.2 Number patterns.

Lesson vocabulary: Ten, groups, tens, interval, number board.

Prior knowledge:
Learners should have been taught how to:

- Count forwards in tens from any multiple of 10 between 0 and 50.
- Copy, extend and describe simple number sequences between 0 and 50.

Concepts:

- Counts forwards in tens from any multiple of 10 between 0 and 50.
- Copy, extend and describe simple number sequences between 0 and 50.

Resources: Counters, 1–50 number boards (see *Printable Resources*), scrap paper, crayons.

DBE workbook activities relevant to this lesson:

- n/a

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: For learners who struggle with this area of work, do more revision with concrete apparatus. Ask the learners to group a variety of counters in tens and put them into containers and then help them to count in tens.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use beans) reliably to 20.
- Count forwards and backwards in 1s from 1 to 50, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	1 + 0 = ?	1
2.	3 + 4 = ?	7
3.	5 + 1 = ?	6
4.	2 + 6 = ?	8
5.	7 + 3 = ?	10

	What is?	Answer
6.	6 – 4 = ?	2
7.	8 – 1 = ?	7
8.	7 – 0 = ?	7
9.	9 – 2 = ?	7
10.	5 – 3 = ?	2

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give learners a number board 1–50.
- Learners touch each number and count to 10. Place a counter on 10.
- Continue in the same way: Count to 20 and place a counter on 20; count to 30, 40, 50.
- Ask the learners to count: 10, 20, 30, 40, 50.

Activity 2: Learners work in groups

Give each group a large sheet of paper and wax crayons.

- Ask the five members of the group to help each other trace each learner's pair of hands side by side on the sheet of paper.
- Each group will have 5 groups of ten.
- The groups pin their sheet of paper up in the class.
- Each group has a turn to count their fingers in tens.
- Talk about the different ways in which learners could count using the drawings of hands they have done. Encourage them to count in groups of 5 and of 10 rather than to count in 1s. Each hand has 5 fingers. A pair of hands has 10 fingers. Count in 5s and in 10s, but point to the hands as you do so to emphasise the number you are counting.

Activity 3: Whole class activity

- Optional. This activity will take time. You might not be able to do it if Activity 2 took a long time.
- Give each learner a cut up 1–50 number board. (You could make number cards for yourself from 1 to 50 and do this activity on the board, if you would prefer and if you have time. Learners could come to the board and place the numbers in the correct rows, building up the number board to 50.)
- Ask them to build a number board. Guide them to do the first row and then ask them to build the rest of the board.
- Check the boards and then let the learners paste them into their Mathematics books.
- Ask the learners to colour the tens and then count them by pointing to each number; 10, 20, 30, 40, 50.

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

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

6. Reflection on lesson

Term 2 Lesson 25: 10s patterns using a number board

Note that in this number learners might cut out the numbers or they might simply write the numbers into the correct places in the number board. It is fine for them to write the answers. Cutting and pasting is fun and develops fine motor coordination but the main aim of this activity is to practice counting in 10s.

Classwork

1. Complete the number board by using the cut-out numbers.

10	20	30	40	50	60	70	80	90	100

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)

2. How many toes do you count? Count in tens and copy the numbers below each block.

				
(10)	(20)	(30)	(40)	(50)

10	20	30	40	50

Homework

1. Draw 5 vases. Then draw 10 flowers in each vase. (Learners will do this drawing. They do not need to be works of art – this is quite a big job!)

2. Count the flowers in tens.

3. Write these numbers in order from smallest to biggest.
   40 20 50 10 30 (10, 20, 30, 40, 50)

LESSON 26: COLLECTING AND ORGANISING DATA

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 5.1 Collect and sort objects, 5.2 Represent sorted collection of objects, 5.3 Discuss and report on sorted collection of objects.

Lesson vocabulary: Collect, sort, group, describe, more than, less than, same, shape, size.

Prior knowledge:
Learners should have been taught how to:

- Collect and sort everyday objects.
- Draw a picture of the collected objects.
- Answer questions about how the collection was sorted and about the drawing of the collection.

Concepts:

- Collect and sort objects.
- Draw a picture of the sorted objects.
- Answer questions about the sorted collection of objects.

Resources: Unifix cubes, counters, bottle tops, shape cut-outs (see *Printable Resources*), leaves (optional).

DBE workbook activities relevant to this lesson:

- DBE worksheet 44 (pp. 92 and 93).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Take the group of learners outside. Ask each learner to pick up only two leaves each from the ground. Learners place the leaves together in the middle of the group. The learners sort the leaves. Ask the learners questions about how to sort the leaves according to colour or according to shape.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use beans) reliably to 20.
- Count forwards and backwards in 1s from 1 to 50, starting from any given number.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	1 less than 9?	8
2.	2 less than 10?	8
3.	3 less than 4?	1
4.	8 less than 10?	2
5.	0 less than 1?	1

	What is?	Answer
6.	6 more than 4?	10
7.	2 more than 1?	3
8.	5 more than 3?	8
9.	0 more than 2?	2
10.	1 more than 6?	7

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

In this lesson learners are given a practical sorting activity. You have to give them a collection of several different shapes for them to do this activity. You do not have to use the same shapes that are suggested in the plan below, but you must make sure that you have a collection of shape that allows learners to sort in a few different ways.

For example, to get other shapes that you could use for the sorting activity, you might collect lots of different kinds of leaves, or you could get the learners to collect and bring different kinds of leaves to school.

Activity 1: Learners work in groups

- Give the learners some of each of the following: Unifix cubes; counters; cut-out shapes; bottle tops (give other shapes according to what you have been able to find and collect).
- Ask the learners to sort the items any way they choose.
- Ask the learners to make drawings of their sorted collections.
- Ask the learners the following questions:
  - *How did you sort your items?* (Discuss all possible answers for ways of sorting.)
  - Answer: by SHAPE, e.g. Unifix, counters, cut-out shapes and bottle tops.
  - Another possible answer: by COLOUR e.g. red, blue, etc.
  - Another possible answer: by SIZE e.g. small, big.
- Ask the learners to explain what they notice about their groupings. Discuss all possible answers.
  - I have different numbers of each type of shape. (There are more of some shapes than other shapes, etc.)
  - Ask: *How many of each shape do you have?* Answer: *I have 5 Unifix cubes and 7 cut-out shapes, etc.*
  - Ask: *Which shape do you have more/less of?* Answer: *I have more bottle tops than counters, etc.*
- Ask the learners to sort their items again in a different way. (For example, if they had sorted by colour, now they can sort by shape, etc.)
- Ask the same questions about the sorting methods and the groupings.

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

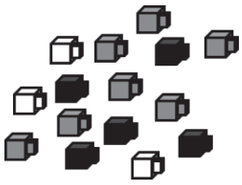
5. Homework activity (5 minutes) (See next page)

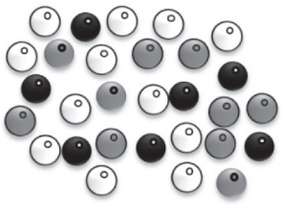
6. Reflection on lesson

Term 2 Lesson 26: Collecting and organising data

Classwork

1. Sort by colour and make a drawing of your sorted collections.
   a) Unifix cubes
   b) Counters





   a) (3 white, 7 grey, 5 black)
   b) (12 white, 10 grey, 7 black)

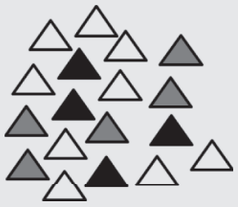
2. Sort the following leaves by making a drawing.

   a) How many black leaves are there? (4)
   b) How many grey leaves are there? (8)
   c) How many black and white leaves are there? (6)

Homework

1. Sort by colour and make a drawing of your sorted collections.

Shapes



(9 white, 5 grey, 4 black)

LESSON 27: GROUPS OF TWO UP TO TEN

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.8 and 1.14 repeated addition leading to multiplication.

Lesson vocabulary: How many, groups, lots of, double, more than, pair, plus, repeated addition.

Prior knowledge:
Learners should have been taught how to:

- Solve problems by grouping using whole numbers up to 5.

Concepts:

- Solves word problems involving grouping of whole numbers up to 10 and with answers which may include remainders.
- Repeated addition of twos up to 10.

Resources: Pictures with pairs of shoes/hands/bicycles (collect and cut out from old magazines etc.), counters.

DBE workbook activities relevant to this lesson:

- DBE worksheet 49 (pp. 104 and 105).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Give each learner 10 counters. Ask them to make 1 group of two. ☐☐ Learners say: *1 group of 2 is 2.* Ask them to make 2 groups of 2. (☐☐ ☐☐)

Learners say: *2 groups of 2 are 4.* Ask learners to count the counters in 2s. (2, 4) Do the same with 3, 4 and 5 groups of two.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use counters) reliably to 20.
- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	Double 2?	4
2.	Double 5?	10
3.	Double 4?	8
4.	Double 1?	2
5.	Double 3?	6

	What is?	Answer
6.	1 more than 6?	7
7.	0 more than 0?	0
8.	3 more than 6?	9
9.	4 more than 3?	7
10.	9 more than 1?	10

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

In this activity learners think about repeated addition rather than simply counting in 2s. The activities are related but it is important here to remember that you are consolidating the concept of addition – that when I add a number of things I find out what I have altogether. You will use counters to show the groups of two and to allow learners to touch and count to find the totals. Encourage the learners to count efficiently (in 2s instead of in 1s). Learners must record the correct number sentences to show the addition they have done each time. This is different to writing a number pattern in 2s. While you do this activity you could talk to them about the difference between counting in 2s and adding repeated 2s.

Activity 1: Whole class activity

- Show the learners four pictures of pairs of shoes. Ask: *How many shoes are there?* (8) *Let's count in twos.* (2, 4, 6, 8.)
- Show the learners five pictures of pairs of hands. Ask: *How many hands are there?* (10) *Let's count in twos.* (2, 4, 6, 8, 10.)
- Show the learners three pictures of bicycles. Ask: *How many wheels are there?* (6) *Let's count in twos.* (2, 4, 6.)
- Talk to the class about what you have done – you have counted pairs of things – pairs of shoes, pairs of hands and pairs of wheels. The word pair means two – this is part of their mathematical vocabulary. If I have a pair of books, I have two books.
- Ask learners to show you different pairs of items that they can find in the class, e.g. a pair of books, a pair of learners, a pair of girls, a pair of boys, etc.

Activity 2: Learners work in groups

- Give each group of learners 10 counters.
- Ask them to make the following groups using counters.
- 4 counters 
- Ask learners: *What can you tell me about the counters?*
  (Answer: There are 2 lots of 2 or 2 groups of 2.)
  We can write: 2 + 2 = 4.
  We say: 2 plus 2 equals 4.
- 6 counters 
- Ask learners: *What can you tell me about the counters?*
  (Answer: There are 3 lots of 2 or 3 groups of 2.)
  We can write: 2 + 2 + 2 = 6.
  We say: 2 plus 2 plus 2 equals 6.
- 8 counters 
- Ask learners: *What can you tell me about the counters?*
  (Answer: There are 4 lots of 2 or 4 groups of 2.)
  We can write: 2 + 2 + 2 + 2 = 8.
  We say: 2 plus 2 plus 2 plus 2 equals 8.
- 10 counters 
- Ask learners: *What can you tell me about the counters?*
  (Answer: There are 5 lots of 2 or 5 groups of 2.)
  We can write: 2 + 2 + 2 + 2 + 2 = 10.
  We say: 2 plus 2 plus 2 plus 2 plus 2 equals 10.

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

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

6. Reflection on lesson

Term 2 Lesson 27: Groups of two up to ten

Classwork

1. Draw circles around the following to make:
   a) 2 groups of 2 ○ ○ ○ ○ (○ ○) (○ ○)
   b) 4 groups of 2 □ □ □ □ □ □ □ □ (□ □) (□ □) (□ □) (□ □)
   c) 5 groups of 2 ◇ ◇ ◇ ◇ ◇ ◇ ◇ ◇ ◇ ◇ (◇ ◇) (◇ ◇) (◇ ◇) (◇ ◇) (◇ ◇)
   d) 3 groups of 2 ★ ★ ★ ★ ★ ★ (★ ★) (★ ★) (★ ★)

2. Write a number sentence for each of the following:
   a) ● ● ● ● (2 + 2 = 4)
   b)  (2 + 2 + 2 + 2 + 2 = 10)
   c)  (2 + 2 + 2 + 2 = 8)
   d)  (2 + 2 + 2 = 6)

Homework

Complete these problems: (Show the problem with a drawing and write a number sentence.)

1. We have 4 groups of 2 children sitting under the tree. How many children are under the tree?
   (● ● ● ● ● ● ● ● 2 + 2 + 2 + 2 = 8)

2. I have 5 groups of 2 cupcakes on a tray. How many cupcakes are there on the tray?
   (● ● ● ● ● ● ● ● ● ● 2 + 2 + 2 + 2 + 2 = 10)

3. Temba has 3 groups of 2 stones on the grass. How many stones are on the grass?
   (● ● ● ● ● ● 2 + 2 + 2 = 6)

4. I have 2 groups of 2 shoes on the floor. How many shoes are there on the floor?
   (● ● ● ● 2 + 2 = 4)

LESSON 28: 2s – REPEATED ADDITION UP TO 10

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.12 Techniques (methods or strategies), 1.8 and 1.14 Repeated addition leading to multiplication.

Lesson vocabulary: How many, groups, lots of, remainders, equals, half, less than, addition, multiplication, number sentence, repeated addition, twos.

Prior knowledge:
Learners should have been taught how to:

- Solve problems by grouping using whole numbers up to 5.
- Do repeated addition up to 10.

Concepts:

- Solves word problems involving grouping of whole numbers up to 10.
- Repeated addition of twos up to 10.

Resources: Pictures of people and animals (collect and cut out from old magazines etc.), counters.

DBE workbook activities relevant to this lesson:

- DBE worksheet 50 (pp. 106 and 107).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Give the learners counters. Ask them to show you 2 + 2 = 4 ● ● ● ●
Learners say: *2 plus 2 equals 4.* Do the same with 2 + 2 + 2 = 6; 2 + 2 + 2 + 2 = 8; 2 + 2 + 2 + 2 + 2 = 10.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use beans) reliably to 20.
- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	Half of 6?	3
2.	Half of 4?	2
3.	Half of 10?	5
4.	Half of 2?	1
5.	Half of 8?	4

	What is?	Answer
6.	0 less than 10?	10
7.	4 less than 9?	5
8.	5 less than 6?	1
9.	7 less than 10?	3
10.	0 less than 1?	1

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

In this activity learners consolidate their understanding of repeated addition. Remember to emphasise the difference between counting and adding. When I add a number of things I find out what I have altogether. I can use counting to help me add.

Activity 1: Learners work in groups

- Give the learners counters and ask them to show you:

1 group of 2	2 groups of 2	3 groups of 2	4 groups of 2	5 groups of 2
(● ●)	(● ● ● ●)	(● ● ● ● ● ●)	(● ● ● ● ● ● ● ●)	(● ● ● ● ● ● ● ● ● ●)

Activity 2: Whole class activity

- Give each group of learners the following set of pictures that you have prepared for the lesson (these can be cut out of magazines):
- A picture of 2 people, a picture of 4 people and a picture of 6 animals.
- Refer to the picture with 2 people: Ask learners: *How many friends do you see?* (2)
  How many eyes do they each have? (2)
  How many eyes do they have altogether? (4)
  How can we write it as a number sentence? (2 + 2 = 4)
- Refer to the picture with 4 people: Ask learners: *How many friends do you see?* (4)
  How many legs do they each have? (2)
  How many legs do they have altogether? (8)
  How can we write it as a number sentence? (2 + 2 + 2 + 2 = 8)
- Refer to the picture with 6 animals: Ask learners: *How many animals are there?* (6)
  How many ears do they each have? (2)
  How many ears do they have altogether? (12)
  How can we write it as a number sentence? (2 + 2 + 2 + 2 + 2 + 2 = 12)
- Make up other questions that lead to addition of 2s or ask the learners to do this with you, if there is time.

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

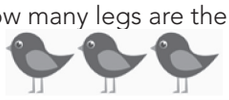
5. Homework activity (5 minutes) (See next page)

6. Reflection on lesson

Term 2 Lesson 28: 2s – repeated addition up to 10

In Question 2 of this activity, the solutions are shown using triangles. Learners can draw any shapes here. Discuss the different shapes they draw – this consolidates their knowledge of the names of shapes.

Classwork

1. How many legs are there? Write a number sentence for each one below the picture.
   a)  (2 + 2 + 2 = 6)
   b)  (2 + 2 + 2 + 2 + 2=10)
   c)  (2 + 2 = 4)
   d)  (2 + 2 + 2 + 2 = 8)

2. Draw shapes for the following:
   a) 2 + 2 = ☐ (△ △ △ △ There are four triangles.)
   b) 2 + 2 + 2 + 2 = ☐ (△ △ △ △ △ △ △ △ There are eight triangles.)
   c) 2 + 2 + 2 + 2 + 2 = ☐ (△ △ △ △ △ △ △ △ △ △ There are ten triangles.)

3. Write a number sentence for the following:
   a) ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ (2 + 2 + 2 + 2 + 2 = 10)
   b) ○ ○ ○ ○ (2 + 2 = 4)
   c) ○ ○ ○ ○ ○ ○ (2 + 2 + 2 = 6)

Homework

1. Draw shapes for the following: 2 + 2 + 2 = ☐ (△ △ △ △ △ △ = 6)
2. Write a number sentence for the following: ○ ○ ○ ○ ○ ○ ○ ○ (2 + 2 + 2 + 2 = 8)
3. Copy this table and then colour all the multiples of two.

1	2 (✓)	3	4 (✓)	5	6 (✓)	7	8 (✓)	9	10(✓)

WEEK 8

LESSON 29: GROUPS OF 3 UP TO 10

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.12 Techniques (methods or strategies), 1.8 and 1.14 Repeated addition leading to multiplication.

Lesson vocabulary: How many, groups, lots of, more than, less than, double, half, plus, repeated addition, threes.

Prior knowledge:
Learners should have been taught how to:

- Solve problems by grouping using whole numbers up to 10.
- Do repeated addition of twos up to 10.

Concepts:

- Solves word problems involving grouping of whole numbers up to 10.
- Repeated addition of threes up to 10.

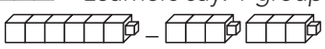
Resources: Pictures of tricycles or things grouped in threes (collect and cut out from old magazines etc.), counters, Unifix cubes.

DBE workbook activities relevant to this lesson:

- DBE worksheet 52 (pp. 110 and 111).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Give the learners 10 Unifix cubes. Ask them to make:

- 1 group of 3  Learners say: *1 group of 3 is 3.*
- 2 groups of 3  Learners say: *2 groups of 3 is 6.*
- 3 groups of 3  Learners say: *3 groups of 3 is 9.*

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use counters) reliably to 20.
- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	1 more than 8?	9
2.	Double 4?	8
3.	3 less than 6?	3
4.	Half of 10?	5
5.	4 more than 6?	10

	What is?	Answer
6.	Double 3?	6
7.	2 less than 7?	5
8.	Half of 4?	2
9.	3 more than 7?	10
10.	1 less than 10?	9

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

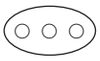
In this activity learners consolidate their understanding of repeated addition. Now the number we add repeatedly is 3. Counting in 3s is a new counting pattern – take time to talk about it.

Activity 1: Whole class activity

Share with learners things that come in threes. E.g.:

- Show the learners a bag with three buttons in it and ask: *How many buttons do you see?* (3)
- Show the learners a picture of three tricycles and ask: *How many wheels do you see?* (9)
- Show the learners three plastic bags with three little stones or marbles in each bag. Ask: *How many stones/marbles do you see?* (9)
- Tie two bundles of three sticks together and ask: *How many sticks do you see?* (6)
- Show the learners a picture of two flowers with three petals on each and ask: *How many petals do you see?* (6).
- Talk to the class about what you have done – you have counted groups of 3 things each time– three buttons, three wheels on each tricycle, stones in bags of three and so on.
- Ask learners to show you different groups of 3 items that they can find in the class, e.g. three books, three learners, three girls, three boys, etc.

Activity 2: Learners work in groups

- Give each group of learners 10 counters.
- Ask them to make the following groups using counters.
- 3 counters 
  Ask learners: *What can you tell me about the counters?*
  We can say: *1 group of 3 makes 3.*
  We can write: 3 = 3

- 6 counters 
  Ask learners, *What can you tell me about the counters?*
  We can say: *2 lots of 3 makes 6;* or *2 groups of 3 makes 6;* or *3 plus 3 equals 6.*
  We can write: 3 + 3 = 6

- 9 counters 
  Ask learners, *What can you tell me about the counters?*
  We can say: *3 lots of 3 makes 9;* or *3 groups of 3 makes 9;* or *3 plus 3 plus 3 equals 9.*
  We can write: 3 + 3 + 3 = 9

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

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

6. Reflection on lesson

Term 2 Lesson 29: Groups of 3 up to 10

Classwork

1. Answer the questions.

   a) How many bananas do you see? (6)
   b) How many groups are there? (2)
   c) Write it as a number sentence. (3 + 3 = 6)

2. Draw circles around the following and then write the number sentence.
   a) 2 groups of 3 □ □ □ □ □ □ (□ □ □) (□ □ □) (3 + 3 = 6)
   b) 3 groups of 3 ○ ○ ○ ○ ○ ○ ○ ○ ○ (○ ○ ○) (○ ○ ○) (○ ○ ○) (3 + 3 + 3 = 9)
   c) 4 groups of 3 ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ (○ ○ ○) (○ ○ ○) (○ ○ ○) (○ ○ ○) (3 + 3 + 3 + 3 = 12)
   d) 1 group of 3 ☆ ☆ ☆ (☆ ☆ ☆) (3)

3. Write a number sentence for the following:
   a) (○ ○ ○) (○ ○ ○) (3 + 3 = 6)
   b) (○ ○ ○) (○ ○ ○) (○ ○ ○) (3 + 3 + 3 = 9)

Homework

1. Draw 2 groups of 3 and then write the number sentence. (● ● ● ● ● ● 3 + 3 = 6)
2. Draw 3 groups of 3 and then write the number sentence. (● ● ● ● ● ● ● ● ● 3 + 3 + 3 = 9)

LESSON 30: 3s – REPEATED ADDITION UP TO 10

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 2.2 Number patterns. **Lesson vocabulary:** How many, groups, lots of, add, addition, plus, equals, remainder, take away, left over, grouping, threes, number sentence. **Prior knowledge:** Learners should have been taught how to: • Solve problems by grouping using whole numbers up to 10. • Do repeated addition of twos up to 10. **Concepts:** • Solves word problems involving grouping of whole numbers up to 10 and with answers which may include remainders. • Repeated addition of threes up to 10. **Resources:** Shape cuts outs – triangles (see *Printable Resources*), counters, Unifix cubes. **DBE workbook activities relevant to this lesson:** • DBE worksheet 53 (pp. 112 and 113). **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Give the learners counters. Ask them to show you 3 + 3 = 6. Assist them to '*read*' the number sentence *three plus three equals six*. Do the same with 3 + 3 + 3 = 9. Use 3 + 3 = 6 in a problem sum. E.g. *I have 3 flowers. My friend has 3 flowers. How many flowers do we have altogether?* **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (use beans) reliably to 20.
- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

Read out the questions one at a time. Learners hold up the *more than* or *less than* flashcard that gives the correct answer.

		Answer
1.	9 is _____ 5?	more than
2.	4 is _____ 7?	less than
3.	5 is _____ 8?	less than
4.	6 is _____ 3?	more than
5.	10 is _____ 1?	more than

		Answer
6.	1 is _____ 7?	less than
7.	8 is _____ 4?	more than
8.	2 is _____ 9?	less than
9.	10 is _____ 5?	more than
10.	9 is _____ 10?	less than

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give each learner 10 Unifix cubes or counters. Ask them to make groups of threes.
- Group the Unifix cubes in the following way: 10 Unifix cubes = □ □ □ □ □ □ □ □ □ □
- Ask the learners to describe the arrangement.
- Discuss – three groups of three and one left over/remainder one.
- Repeat this procedure using different numbers of Unifix cubes or counters. Each time discuss the grouping and what they find. For example:
- 8 Unifix cubes. (I can make 2 groups of 3 and I have 2 left over.)
- 7 Unifix cubes. (I can make 2 groups of 3 and I have 1 left over.)
- 6 Unifix cubes. (I can make 2 groups of 3 and I have none left over.)

Activity 2: Whole class activity

- Give each learner three cardboard triangles. Discuss the number of sides that each triangle has. (3 sides.)
- Ask them: *How many triangles do you have?* (3)
- *How many sides does one triangle have?* (3)
- *How many sides are there on 3 triangles?/How many sides altogether?* (9)
- *How can you write this down as a number sentence?* Assist learners to write down the number sentence on their piece of paper/chalk board. (3 + 3 + 3 = 9)
- Do the same with 2 triangles.

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

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

6. Reflection on lesson

Term 2 Lesson 30: 3s – repeated addition up to 10

Classwork

1. How many wheels are there? Write down the number sentence for each picture.

a)    (3 + 3 + 3 = 9)

b)   (3 + 3 = 6)

c)  (3 + 0 = 3)

2. Make groups of three and then write the number sentence.
   a) ● ● ● ● ● ● ● ● ● (● ● ●) (● ● ●) (● ● ●) (3 + 3 + 3 = 9)
   b) ● ● ● ● ● ● (● ● ●) (● ● ●) (3 + 3 = 6)

3. Draw a picture to solve the following and write the number sentence:
   I have three red apples, three green apples and three yellow apples. How many apples do I have altogether?
   (*** *** *** 3 + 3 + 3 = 9)

Homework

1. Draw shapes to show the following:
   a) 3 + 3 = ☐ (*** *** 3 + 3 = 6)
   b) 3 + 3 + 3 = ☐ (*** *** *** 3 + 3 + 3 = 9)

LESSON 31: GROUPS OF 4 UP TO 10

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 2.2 Number patterns.

Lesson vocabulary: How many, groups, lots of, add, addition, plus, equals, remainder, more than, less than, altogether, fours.

Prior knowledge:
Learners should have been taught how to:

- Solve problems by grouping using whole numbers up to 10.
- Do repeated addition of twos and threes up to 10.

Concepts:

- Use calculation strategies to add or subtract efficiently.
- Solves word problems involving grouping of whole numbers up to 10 and with answers which may include remainders.
- Repeated addition of fours up to 10.

Resources: Pictures of various wild animals animals/cars (collect and cut out from old magazines etc.), Unifix cubes, counters.

DBE workbook activities relevant to this lesson:

- DBE worksheet 54 (pp. 114 and 115).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Give the learners Unifix cubes. Ask them to make one group of four Unifix cubes. Learners say: *1 group of 4 is 4.* Ask them to make two groups of four Unifix cubes. Learners say: *2 groups of 4 is 8.* Ask the learners to use their Unifix cubes to solve the following problem: *How many legs do two rhino have?* (☐ ☐ ☐ ☐ and ☐ ☐ ☐ ☐ make 8).

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

Read the questions one at a time. Learners use number cards and hold cards with the correct answer.

	What is?	Answer
1.	4 + 4 = ?	8
2.	3 + 3 = ?	6
3.	6 + 1 = ?	7
4.	2 + 7 = ?	9
5.	5 + 5 = ?	10

	What is?	Answer
6.	6 – 3 = ?	3
7.	4 – 2 = ?	2
8.	8 – 4 = ?	4
9.	10 – 1 = ?	9
10.	3 – 3 = ?	0

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Whole class activity

- Discuss with the learners things that come in fours e.g. wheels on cars, legs on dogs/cats, etc. (Learners suggest other four legged animals.)
- Show the learners pictures of wild animals that you have collected for this lesson, e.g. two elephants.
- Ask: *How many elephants do you see?* (2) *How many legs do they have altogether?* (8)
- Show them a picture of one animal, e.g. one lion.
- Ask: *How many lions do you see?* (1) *How many legs do you see?* (4)
- Follow the same procedure with a picture of two cars (8 wheels on 2 cars) and a picture of one car (4 wheels on 1 car).
- Ask learners to show you or talk about other things which they see in groups of four.

Activity 2: Learners work in groups

- Give each group of learners 10 counters.
- Ask them to make a group of four.
- Ask learners: *What can you tell me about the counters?* (Answer: *We can say 1 group of four is four. We write 4 = 4.*)
- Ask them to make two groups of four.
- Ask learners: *What can you tell me about the counters?* (Answer: *We can say 2 groups of four is eight. We write 4 + 4 = 8*)

Activity 3: Whole class activity

Ask the learners to solve the following problems using their counters:

- *We saw two cars parked on the field. How many wheels did we see?* (4 + 4 = 8)
- *I saw two buck in the zoo. How many legs did I see?* (4 + 4 = 8)
- *Tom has one black cat. How many paws does he see?* (4)

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

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

6. Reflection on lesson

Term 2 Lesson 31: Groups of 4 up to 10

Classwork

1. I saw the following animals in the zoo. How many legs did I see? Write a number sentence for each.

a)  (4 + 0 = 4)

b)  (4 + 4 = 8)

c)  (4 + 4 = 8)

2. I have 2 plates with four cookies on each. How many cookies altogether? (4 + 4 = 8)

3. Draw circles around the following to make:
   a) 2 groups of 4 ● ● ● ● ● ● ● ● (● ● ● ●) (● ● ● ●)
   b) 1 group of 4 ● ● ● ● (● ● ● ●)

4. Write a number sentence for the following:
   a) 🔔 🔔 🔔 🔔 🔔 🔔 🔔 🔔 (4 + 4 = 8)
   b) 🕮 🕮 🕮 🕮 🕮 🕮 🕮 🕮 (4 + 4 = 8)

Homework

1. Write a number sentence for the following):
   a) ✈ ✈ ✈ ✈ ✈ ✈ ✈ ✈ (4 + 4 = 8)
   b) ★ ★ ★ ★ ★ ★ ★ ★ (4 + 4 = 8)

2. I have 2 toy cars with four wheels on each. How many wheels altogether? (4 + 4 = 8)

LESSON 32: 4s – REPEATED ADDITION UP TO 10

Teacher's notes
CAPS topics:1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.12 Techniques (methods or strategies), 1.8 and 1.14 Repeated addition leading to multiplication. **Lesson vocabulary:** How many, groups, lots of, add, addition, plus, equals, remainder, more than, less than, repeated addition, fours, number sentence. **Prior knowledge:** Learners should have been taught how to: • Solve problems by grouping using whole numbers up to 10. • Do repeated addition of twos and threes up to 10. **Concepts:** • Solves word problems involving grouping of whole numbers up to 10 and with answers which may include remainders. • Repeated addition of fours up to 10. **Resources:** Pictures of 2 giraffes/2 zebras/other animals (collect and cut out from old magazines etc.), Unifix cubes, counters, variety of objects to count. **DBE workbook activities relevant to this lesson:** • DBE worksheet 55 (pp. 116 and 117). **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Give the learners counters and ask them to show you 4 + 4 = 8. Assist them to read the number sentence *four plus four equals eight*. Repeat with Unifix cubes. Use 4 + 4 = 8 in a problem sum. E.g. *I have 4 red flowers and 4 pink flowers. How many flowers do I have altogether?* **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count out objects (counters) reliably to 20.
- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

(Learners use number cards and hold up the card that gives the correct answer.)

	Which is less?	Answer
1.	1 or 5?	1
2.	3 or 1?	1
3.	0 or 10?	0
4.	3 or 6?	3
5.	4 or 2?	2

	Which is less?	Answer
6.	5 or 6?	5
7.	8 or 3?	3
8.	6 or 10?	6
9.	2 or 7	2
10.	10 or 9?	9

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give learners some of the following objects and ask them to place them in groups of four:
- Pencils, counters, books, small stones, Unifix cubes.
- Learners practice grouping objects in fours.
- While learners work with the objects to make groups of 4, you should circulate and discuss what they are doing. Ask questions to probe that they understand and can use the language of repeated addition of groups. Allow learners to use the mathematical vocabulary to answer your questions. For example, ask:
- *What have you done here?* (Pointing to one group of four.) (I have made one group of four.)
- *What have you done here?* (Pointing to 2 groups of four.) (I have made 2 groups of four.)
- *How much do you have altogether?* (Pointing to 2 groups of four.) (I have 8.)
- *How did you work that out? (I had 2 groups of four and I added 4 plus 4 to get 8.)*
- *How will you write that as a number sentence?* (4 + 4 = 8)
- Etc.

Activity 2: Whole class activity

- In this activity you wrap up the group work activity that the learners did in Activity 1. This will lead them into the individual classwork that follows.
- Show the learners pictures of two giraffes or other animals.
- Ask them: *How many giraffes/animals do you see?* (2)
- Discuss the number of legs that each giraffe/animal has. (4)
- Ask them: *How many legs are there altogether?* (8)
- How can you write it down as a number sentence? Assist learners to write down the number sentence on their piece of paper/chalk board. (4 + 4 = 8)
- Do the same with a picture of two zebras.

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

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

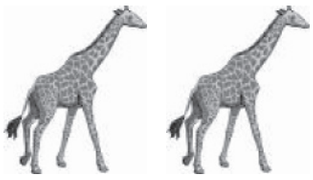
6. Reflection on lesson

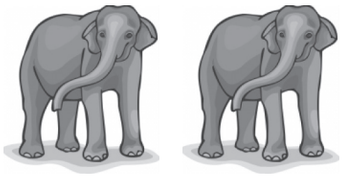
Term 2 Lesson 32: 4s – repeated addition up to 10

Classwork

1. How many legs are there? Write a number sentence for each.

a)  (4 + 4 = 8)

b)  (4 + 4 =8)

c)  (4 + 4 = 8)

2. Draw counters to show the following: 4 + 4 = ☐ (● ● ● ● ● ● ● ● 8 counters)

3. Write a number sentence for:
   a) ✎✎✎✎ ✎✎✎✎ (4 + 4 = 8)
   b) I have two cars. How many wheels? (4 + 4 = 8)
   c) I have two dogs. How many legs? (4 + 4 = 8)
   d) I have two baskets of apples. There are 4 apples in each basket. How many apples altogether? (4 + 4 = 8)

Homework

1. Draw four flowers in each vase and then write the number sentence.
   (Learners can draw the flowers as before – they do not need to be works of art.)

(4 + 4 = 8) 

2. Draw a picture of the following and write the number sentence.
   I have four red apples and four green apples. How many apples do I have altogether? (4 + 4 = 8)

WEEK 9

LESSON 33: GROUPS OF FIVE UP TO 10

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.12 Techniques (methods or strategies), 1.8 and 1.14 Repeated addition leading to multiplication.

Lesson vocabulary: How many, groups, lots of, add, addition, plus, equals, remainder, smallest, biggest, smaller than, greater than, fives, number sentence.

Prior knowledge:
Learners should have been taught how to:

- Solve problems by grouping using whole numbers up to 10.
- Do repeated addition of twos and threes up to 10.

Concepts:

- Solves word problems involving grouping of whole numbers up to 10 and with answers which may include remainders.
- Repeated addition of fives up to 10.

Resources: Pictures of the BIG FIVE or other animals (collect and cut out from old magazines etc.), Unifix cubes, counters, string.

DBE workbook activities relevant to this lesson:

- DBE worksheet 58 (pp. 122 and 123).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Give the learners 10 Unifix cubes and ask them to make one group of five. Learners say: *1 group of 5 is 5.* Ask them to make two groups of five Unifix cubes. Learners say: *2 groups of 5 is 10.* Ask the learners to use crayons to trace both their hands on paper. Ask them to count the fingers on each hand and write the number down below each hand. Ask them: *How many fingers do you have altogether?* (10)

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count forwards and backwards in 5s from 5 to 50.

1.2 Recall and strategies (10 minutes)

Learners use number cards and arrange the cards in the correct order on their desks.

	Put these numbers in order from the smallest to the biggest.	Answer
1.	3, 8, 0, 6, 7	0, 3, 6, 7, 8
2.	9, 10, 2, 8, 4	2, 4, 8, 9, 10
3.	9, 3, 0, 7, 2	0, 2, 3, 7, 9
4.	3, 2, 8, 7, 10	2, 3, 7, 8, 10
5.	9, 2, 6, 7, 0	0, 2, 6, 7, 9

	Put these numbers in order from the smallest to the biggest.	Answer
6.	9, 2, 7, 6	2, 6, 7, 9
7.	0, 6, 7, 2	0, 2, 6, 7
8.	0, 9, 7, 10, 3	0, 3, 7, 9, 10
9.	3, 8, 1, 4, 7	1, 3, 4, 7, 8
10.	3, 9, 2, 7, 5	2, 3, 5, 7, 9

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Whole class activity

- Talk about things that come in fives. For example, five fingers on one hand, five toes on one foot, the Big Five (elephant, rhino, lion, buffalo, leopard).
- Show the learners pictures of these during the discussion.
- Ask the learners to tell you about things they have noticed in fives.

Activity 2: Learners work in groups

- Give each group of learners 10 counters.
- Ask them to make the following groups:
  - Make one group of five counters.
  - *Ask: How many groups do you have?* (1 group of 5.)
  - *Ask: How many counters do you have?* (5)
  - Make two groups of five counters
  - Ask: *How many groups do you have?* (2 groups of 5.)
  - Ask: *How many counters do you have?* (10)
  - Ask: *How can you write it down as a number sentence?*
  - Assist learners to write down the number sentence in their Mathematics books. (5 + 5 = 10)

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

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

6. Reflection on lesson

Term 2 Lesson 33: Groups of five up to 10

Classwork

1. Answer the questions.

   a) How many hands do you see? (2)
   b) How many fingers do you see? (10)
   c) Write it as a number sentence. (5 + 5 = 10)

2. Draw circles around the counters to make:
   a) 1 group of 5 ☐ ☐ ☐ ☐ ☐ (☐ ☐ ☐ ☐ ☐)
   b) 2 groups of 5 ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ (☐ ☐ ☐ ☐ ☐) (☐ ☐ ☐ ☐ ☐)
   c) 2 groups of 5 ○ ○ ○ ○ ○ ○ ○ ○ ○ ○ (○ ○ ○ ○ ○) (○ ○ ○ ○ ○)
   d) 1 group of 5 ◇ ◇ ◇ ◇ ◇ (◇ ◇ ◇ ◇ ◇)

3. Write a number sentence for:
   a) ✎✎✎✎✎ ✎✎✎✎✎ (5 + 5 = 10)
   b) ✂✂✂✂✂ ✂✂✂✂✂ (5 + 5 = 10)
   c) 🕮🕮🕮 🕮🕮🕮 (5 + 5 = 10)
      🕮🕮 🕮🕮
   d) 🖐 🖐 (5 + 5 = 10)

4. Draw a picture to help you solve the problems:
   a) I have two hands. How many fingers? (***** ***** 5 + 5 = 10)
   b) I have two plates of cupcakes. There are 5 cupcakes on each plate. How many cupcakes altogether? (***** ***** 5 + 5 = 10)

Homework

1. Draw 2 groups of 5 bananas and then write the number sentence.
   (***** ***** 5 + 5 = 10)

2. Draw 2 groups of 5 suckers and then write the number sentence.
   (***** ***** 5 + 5 = 10)

LESSON 34: 5s – REPEATED ADDITION UP TO 10

Teacher's notes

CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.12 Techniques (methods or strategies), 1.8 and 1.14 Repeated addition leading to multiplication.

Lesson vocabulary: How many, groups, lots of, add, addition, plus, equals, remainder, smallest, biggest, smaller than, bigger than, repeated addition, fives, number sentence.

Prior knowledge:
Learners should have been taught how to:

- Solve problems by grouping using whole numbers up to 10.
- Do repeated addition of twos, threes and fours up to 10.

Concepts:

- Solves word problems involving grouping of whole numbers up to 10 and with answers which may include remainders.
- Repeated addition of fives up to 10.

Resources: Pictures of two footprints in the sand (collect and cut out from old magazines etc. or draw your own), Unifix cubes, counters, variety of objects to count.

DBE workbook activities relevant to this lesson:

- DBE worksheet 57 (pp. 120 and 121).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: Ask the learners to use counters to show you 5 + 5 = 10. Assist them to read the number sentence *five plus five equals ten*. Repeat with Unifix cubes. Use 5 + 5 = 10 in a problem sum. E.g. *I have 5 red flowers and 5 pink flowers. How many flowers do I have altogether?* Learners use the counters to show their answer and say *5 plus 5 equals 10*.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count forwards and backwards in 5s from 5 to 50.

1.2 Recall and strategies (10 minutes)

Learners use number cards and arrange the cards in the correct order on their desks.

	Put these numbers in order from the biggest to the smallest.	Answer
1.	9, 3, 1, 8, 0, 7	9, 8, 7, 3, 1, 0
2.	5, 3, 1, 8, 7, 0	8, 7, 5, 3, 1, 0
3.	9, 2, 0, 7, 5	9, 7, 5, 2, 0
4.	6, 7, 2, 0, 9	9, 7, 6, 2, 0
5.	1, 5, 10, 3, 4	10, 5, 4, 3, 1

	Put these numbers in order from the biggest to the smallest.	Answer
6.	5, 7, 9, 3, 0	9, 7, 5, 3, 0
7.	10, 8, 3, 4, 2	10, 8, 4, 3, 2
8.	2, 6, 4, 8, 3	8, 6, 4, 3, 2
9.	9, 0, 7, 5, 2	9, 7, 5, 2, 0
10.	3, 7, 2, 10, 5	10, 7, 5, 3, 2

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give learners some of the following objects and ask them to place them in groups of five: pencils, counters, books, little stones, Unifix cubes.
- Learners practise grouping objects in fives.
- While learners work with the objects to make groups of 5 you should circulate and discuss what they are doing. Ask questions to probe that they understand and can use the language of repeated addition of groups. Allow learners to use the mathematical vocabulary to answer your questions. For example, ask:
  - *What have you done here?* (Pointing to one group of five.) (I have made one group of five.)
  - *What have you done here?* (Pointing to 2 groups of five.) (I have made 2 groups of five.)
  - *How much do you have altogether?* (Pointing to 2 groups of five.) (I have 10.)
  - *How did you work that out?* (I had 2 groups of five and I added 5 plus 5 to get 10.)
  - *How will you write that as a number sentence?* (5 + 5 = 10)
  - *Etc.*

Activity 2: Whole class activity

- In this activity you wrap up the group work activity that the learners did in Activity 1. This will lead them into the individual classwork that follows.
- Show the class a picture of two footprints in the sand.
- Ask the learners: *How many feet do you see?* (2)
- Discuss the number of toes that each foot has. (5)
- Ask them: *How many toes do you see altogether?* (10)
- Ask: *How will you write it down as a number sentence?* (Write it on the board: 5 + 5 = 10)
- Do the same with a picture of two hands.
- Discuss the focus of the counting of 5s – when it is the hands there are 2 groups of 5, and so there are 10 fingers because 5 + 5 = 10.
- What other examples can the learners talk about where the counting can differ depending on the focus? (People, cars, animals, feet, etc.)
- Allow learners to tell you about different sums they can make by adding groups. Use the time that you have to do this but when you need to, you should move to the individual classwork activity so that learners have enough time to do this important written work.

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

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

6. Reflection on lesson

Term 2 Lesson 34: 5s – repeated addition up to 10

Classwork

1. How many fingers or toes are there? Write a number sentence for each. (5 + 5 = 10)



2. Draw counters to show the following. 5 + 5 = ☐ (***** ***** 10 counters)

3. Write a number sentence for: △ △ △ △ △ △ △ △ △ △ (5 + 5 = 10)

4. How many toes do you have on each foot? How many toes do you have altogether? Draw the picture and write the number sentence. (***** ***** 5 + 5 = 10)

5. How many fingers do you have on each hand? How many fingers do you have altogether? Draw the picture and write the number sentence. (***** ***** 5 + 5 = 10)

Homework

1. Draw 5 apples in each tree and then write the number sentence.


(5 + 5 = 10)

2. Draw 5 suckers in each box and then write the number sentence.

(5 + 5 = 10)

LESSON 35: MONEY

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.11 Money.
Lesson vocabulary: Money, currency, coins, cents, rands, how much, add, equals, between.
Prior knowledge: Learners should have been taught how to: • Recognise South African coins and bank notes.
Concepts: • Recognise and identify the South African currency coins: 10c, 20c, 50c, R1, R2 and R5. • Solve money problems.
Resources: Money coin cut-outs (see *Printable Resources*).
DBE workbook activities relevant to this lesson: • DBE worksheet 60a (pp. 126 and 127). • DBE worksheet 60b (pp. 128 and 129).
Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: For learners who struggle to identify the coins, ask them to show you each coin and discuss them again. Do more revision with the paper coins, help them to exchange e.g. two 10c coins for one 20c coin, two R1 coins for one R2 coin etc.
Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	Give me a number between:	Answer
1.	1 and 3?	2
2.	2 and 4?	3
3.	3 and 5?	4
4.	1 and 4?	2 and 3
5.	1 and 5?	2, 3 and 4

	Give me a number between:	Answer
6.	2 and 5?	3 and 4
7.	0 and 3?	1 and 2
8.	0 and 4	1, 2 and 3
9.	0 and 2?	1
10.	1 and 4?	2 and 3

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

You need to bring one of each of the following coins to class for this lesson: 10c, 20c, 50c, R1, R2 and R5. This will give learners the opportunity to hold the real coin when they talk about the way the coin looks in Activity 2. The cut out coins will be useful in Activity 3. You need to prepare these for the lesson in advance.

Activity 1: Whole class activity

- Put up pictures of the following coins on the board: 10c, 20c, 50c, R1, R2 and R5.
- Discuss the following with the learners interactively:
  - *What is money?* (Something we use to exchange for things we need or want.)
  - *Why is money important?* (To be able to buy the things we need or want.)
  - *How do we use money every day?* (We go to the shop and spend it on things like food, clothing, toys, etc.)

Activity 2: Whole class activity

- Put each of the coins you have brought to class for this lesson (10c, 20c, 50c, R1, R2 and R5) on your desk in the front of the class. Call on one learner at a time to come to the front and pick up a coin, to tell the class about that coin.
- Ask the first learner to hold up the 10c coin.
- Ask them: *What can you tell me about this coin?* (Answer: Learners could describe the colour of the coin, the picture on the coin, or anything else they see on the coin. They could also talk about what they could buy with the coin.)
- Repeat with other coins.

Activity 3: Learners work in pairs

- Use the coin cuts outs from the *Printable Resources*.
- Give each group of learner the following paper copies of the coins: 10c, 20c, 50c, R1, R2 and R5. They need a few of each coin.
- Ask them to place the 20c coin on their desk. Ask: *Which other coins can also make 20c?* (Two 10c coins – 10c and 10c is equal to 20c)
- Ask them to place the 50c coin on their desk. Ask: *Which other coins can also make 50c?* (Two 20c and one 10c coin. 20c + 20c + 10c = 50c.)
- Ask them to place the R2 coin on their desk. Ask: *Which other coins can also make R2?* (Two R1 coins – R1 and R1 is equal to R2.)
- Ask them to place the R5 coin on their desk. Ask: *Which other coins can also make R5?* (Two R2 coins and one R1 coin – R2 and R2 and R1 is equal to R5.)

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

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

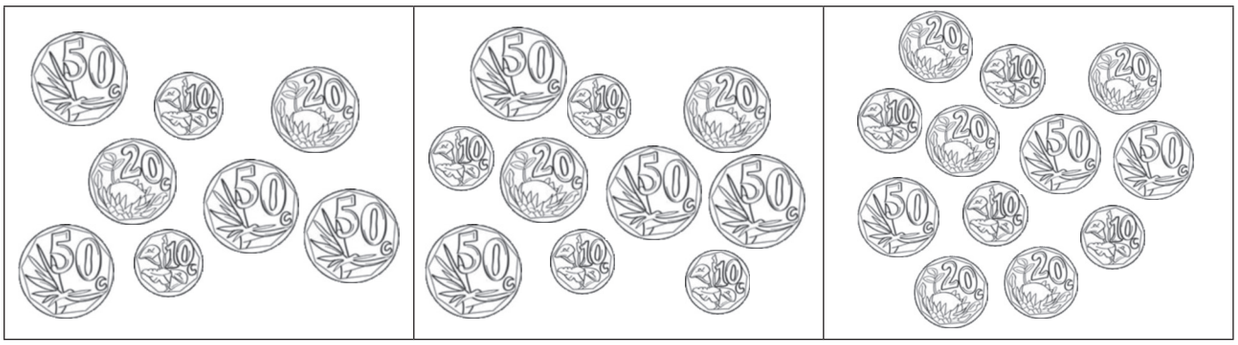
6. Reflection on lesson

Term 2 Lesson 35: Money

Classwork

1. Colour all the:

10c coins | 20c coins | 50c coins



(Learners must indicate the correct coins. This is to check that they recognize the coins.)

2. Colour all the:

R1 coins | R2 coins | R5 coins

(Learners must indicate the correct coins. This is to check that they recognize the coins.)

3. Draw 3 different ways to use coins to make 50c. (a variety of drawings)

Homework

1. Draw 3 different ways to use coins to make R5. (a variety of drawings)

LESSON 36: MONEY

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.11 Money. **Lesson vocabulary:** Money, currency, coins, cents, rands, how much, add, equals, smallest, biggest, smaller than, bigger than, order. **Prior knowledge:** Learners should have been taught how to: • Recognise and identify South African coins. **Concepts:** • Recognise and identify the South African currency coins: 10c, 20c, 50c, R1, R2 and R5. • Solve money problems. **Resources:** Money coin cut-outs (see *Printable Resources*), shop items (see *Printable Resources*). **DBE workbook activities relevant to this lesson:** • DBE worksheet 61 (pp.130 and 131). **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Give learners 10c, and 20c paper coins. Ask learners to choose two coins and to tell you how much money they have. As they speak you can write the number sentence on the board. E.g. 10c + 10c = 20c. **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count forwards and backwards in 5s from 5 to 50.

1.2 Recall and strategies (10 minutes)

Learners use number cards and arrange the cards in the correct order on their desks.

	Put these numbers in order from the smallest to the biggest.	Answer
1.	9, 5, 7, 2, 10	2, 5, 7, 9, 10
2.	9, 2, 4, 8, 7	2, 4, 7, 8, 9
3.	0, 3, 8, 1, 6	0, 1, 3, 6, 8
4.	9, 0, 7, 8, 2	0, 2, 7, 8, 9
5.	10, 3, 9, 2, 1	1, 2, 3, 9, 10

	Put these numbers in order from the smallest to the biggest.	Answer
6.	8, 3, 1, 9, 4	1, 3, 4, 8, 9
7.	9, 2, 10, 5, 7	2, 5, 7, 9, 10
8.	3, 9, 2, 5, 7	2, 3, 5, 7, 9
9.	3, 9, 2, 4, 5	2, 3, 4, 5, 9
10.	3, 8, 1, 7, 5	1, 3, 5, 7, 8

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

Use the coin cuts outs from the *Printable Resources*.

- Ask the learners to show you one 10c coin and tell you how much money they have. (10c)
- Ask the learners to show you two 10c coins.
- Ask: *How much money do you have?* (Explain that we can use a number sentence: 10c + 10c = 20c. The learners point and count: 10c, 10c.)
- Ask the learners to show you four 10c coins.
- Ask: *How much money do you have?* (Explain that we can use a number sentence: 10c + 10c +10c + 10c = 40c. The learners point and count: 10c, 20c, 30c, 40c.)
- Ask the learners to show you one 10c coin and tell you how much money they have. (10c)
- Then ask the learners to show you two 10c coins.
- Ask: *How much money do you have?* (Explain that we can use a number sentence: 10c + 10c = 20c. The learners point and count: 10c, 20c.)
- Ask the learners to show you a 10c coin and two 10c coins.
- Ask: *How much money do you have?* (Explain that we can use a number sentence: 10c + 10c + 10c = 30c. The learners point and count: 10c, 20c, 30c.)

Activity 2: Whole class activity

- Give each pair of learners a copy of the shop items page from the *Printable Resources.*
- This activity is a discussion of the printable resource in preparation for the individual classwork activity.
- Discuss the items and the price tags as shown so that learners know how to use this printout when they do the classwork activity (question 3 of classwork).
- Point to items and ask:
  - What does the soccer ball cost? (R2)
  - What does the flower cost? (20c)
  - What does the car cost? (R5)
  - etc.
- Discuss the prices – are they realistic? Allow time for good discussion where learners participate. We have made lower prices on the worksheet just so that we can work with the amounts.
  - A soccer ball would cost more than R2.
  - A flower could cost 20c but it could also cost more.
  - A toy car might cost R5 but a real car would cost much more.
  - etc.

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

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

6. Reflection on lesson

Term 2 Lesson 36: Money

Classwork

1. Draw the coins that will give you a total of:
   a) 10c b) 20c c) 30c (a variety of drawings)

2. What is the total value of the coins?
   a)  (20c)
   b)  (40c)
   c)  (30c)

3. Look at the items in the shop window. Draw items that you can buy with:
   (A variety of drawings is possible for each of these – check that learners have selected items that come to the correct total in each case)
   a) 20c
   b) R2
   c) R5
   d) R10.

Homework

1. Draw the coins that will give you a total of:
   (a variety of drawings)
   a) 50c
   b) R2
   c) R10.

WEEK 10

LESSON 37: MONEY

Teacher's notes
CAPS topics: 1.1 Count objects, 1.2 Count forwards and backwards, 1.16 Mental mathematics, 1.11 Money.
Lesson vocabulary: Money, currency, coins, cents, rands, how much, add, take away, equals, left, more than, less than, double, half, change.
Prior knowledge: Learners should have been taught how to: • Recognise and identify South African coins.
Concepts: • Recognise and identify the South African currency coins: 10c, 20c, 50c, R1, R2 and R5. • Solve money problems involving totals and change to R10 and in cents up to 20c.
Resources: Money coin cut-outs (see *Printable Resources*), shop items (see *Printable Resources*).
DBE workbook activities relevant to this lesson: • DBE worksheet 62 (pp. 132 and 133).
Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: Ask learners to make up different amounts of money using 20c and 10c coins, and to then take coins away to work out how much is left over. E.g. 10c + 10c + 10c + 10c = 40c and 40c – 10c – 10c = 20c.
Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count forwards and backwards in 2s from 2 to 20.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	3 more than 4?	7
2.	Double 2?	4
3.	1 less than 2?	1
4.	Half of 4?	2
5.	2 more than 6?	8

	What is?	Answer
6.	Double 5?	10
7.	5 less than 6?	1
8.	Half of 6?	3
9.	9 more than 1?	10
10.	0 less than 4?	4

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give the learners the following coins or paper copies of the coins: two 10c coins and one 20c coin.
- Ask the learners to show you two 10c coins and to tell you how much money they have. (20c)
- Then ask the learners to take away one 10c coin. Ask them: *How much money do you have left?* (10c)
- Explain that we can use a number sentence: 20c – 10c = 10c.
- *What will you have if you take away another 10c coin?* (0c. I will have nothing left.)

Activity 2: Learners work in groups

- Ask: *If you had to pay the cashier 10c and you paid with a 20c coin, how much money would you have left?* (10c)
- Ask: *How did you get your answer?* (Answer: We know that 10c + 10c = 20c; show with paper coins. So if I have paid 10c I will get 10c change.)
- Ask: *If you had to pay the cashier 20c and you paid with a 20c coin, how much money would you have left?* (0c. I would not have any money left over.)
- Ask: *How did you get your answer?* (Answer: We know that 10c + 10c = 20c ; show with paper coins how to take 20c away. So if I had to pay 20c and I used a 20c coin I would have no money left.)
- Talk to the learners about the situations you have just worked through. In every case there was an amount of money paid and sometimes there was change left over.
- Explain that we can work out the change by adding up to the total amount or subtracting from the total amount. Both are correct – learners should decide which way they like to do it, or try both ways, if they want to be flexible.
- If I think of it by adding up to the total – I think *how much more than 10 is 20? It is 10 more.*
- If I think of it by subtracting from the total – I think *how much less than 20 is 10? It is 10 less.*

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

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

6. Reflection on lesson

Term 2 Lesson 37: Money

Classwork

1. Take one 10c coin away. How much do you have left?

a)  (10c)

b)  (20c)

c)  (30c)

2. Solve these problems. Draw the picture and write the number sentence.
   a) I bought a sweet for 10c and a cupcake for 10c. How much money did I spend?
      (10c + 10c = 20c)
   b) Tom bought a book for 10c and a pen for 10c. How much money did he spend?
      (10c + 10c = 20c)
   c) I bought a banana. It cost 20c. I paid with a 50c coin. What change did I get?
      (50c – 20c = 30c)
   d) Mom bought an apple. It cost 20c. She paid with a 20c coin. What change did she get?
      (She did not get change.)

Homework

1. I bought a sweet for 10c and an ice cream for 10c. How much did I spend? (20c)

2. I had 20c. I bought a balloon for 10c. How much change did I get? (10c)

LESSON 38: 2-D SHAPES

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:** Circles, triangles, squares, sort, sorting, compare, describe, size, colour, shape, straight sides, round sides, big, bigger, biggest, small, smaller, smallest, more than, less than, square corners. **Prior knowledge:** Learners should have been taught how to: • Recognise and name 2-D shapes in the classroom and in pictures, including learners' symbols and class name. **Concepts:** • Recognise and name 2-D shapes: circles, triangles and squares. • Describe, sort and compare 2-D shapes in terms of; size, colour, shape, straight sided, round sided. **Resources:** Shape cut-outs (see *Printable Resources*), shapes to colour (see *Printable Resources*). **DBE workbook activities relevant to this lesson:** • DBE worksheet 48a (pp. 100 and 101). • DBE worksheet 48b (pp. 102 and 103). **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: For learners who find it difficult to identify the 2-D shapes and distinguish between the various sizes, let them practise sorting a number of shapes of various colours and sizes. Show them how to compare the sizes by placing one shape on top of another. **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count forwards and backwards in 5s from 5 to 50.

1.2 Recall and strategies (10 minutes)

Learners use number cards and hold up the card that gives the correct answer.

	What is?	Answer
1.	1 less than 2?	1
2.	2 less than 7?	5
3.	3 less than 6?	3
4.	4 less than 7?	3
5.	5 less than 9?	4

	What is?	Answer
6.	1 more than 8?	9
7.	2 more than 4?	6
8.	3 more than 5?	8
9.	10 more than 0?	10
10.	8 more than 1?	9

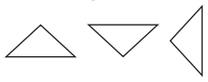
2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

In this lesson learners will revise the names of 2-D geometric shapes but they will also learn to use some of the mathematical words that describe the characteristics of theses shapes – size, straight sided, round edged. They also revise colours by sorting shapes according to colour.

Activity 1: Whole class activity

- Show the learners a triangle that looks like this: 
- Ask the learners *What shape is this?* (Answer: a triangle.)
- Discuss the fact that a triangle is still a triangle regardless of which way you hold it. Show a variety of orientations. E.g. 

Activity 2: Whole class activity

- Ask the learners to hold up a circle:
  - *How did you know that was a circle?* (Answer: it is round.)
  - Encourage learners to describe the features of a circle. (It has a round edge.)
- Ask the learners to hold up a square:
  - *How did you know that was a square?* (Answer: it has 4 sides that are the same length.)
  - Encourage learners to describe the features of a square. (It has straight sides, there are four sides, it has four square corners.)
- Ask the learners to hold up a triangle:
  - *How did you know that was a triangle?* (Answer: it has 3 sides.)
  - Encourage learners to describe the features of a triangle. (It has straight sides, there are three sides, it has three corners.)

Activity 3: Learners work in groups

- Give the learners a number of shapes (circles, squares, triangles) of various sizes and of different colours.
- Ask the learners to:
  - Sort the shapes. Ask *How did you sort your shapes?* (By shape/colour/size.)
  - Describe their sorting to the person sitting next to them. (Talk about the features that the sorting was based on.)
  - Sort their shapes again in a different way.
  - Describe their sorting to the person sitting next to them.
- Make sure the learners are able to sort the shapes according to size, and can recognise the biggest of 3 shapes, the smallest of 3 shapes, a shape which is smaller/bigger than another shape and so on.

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

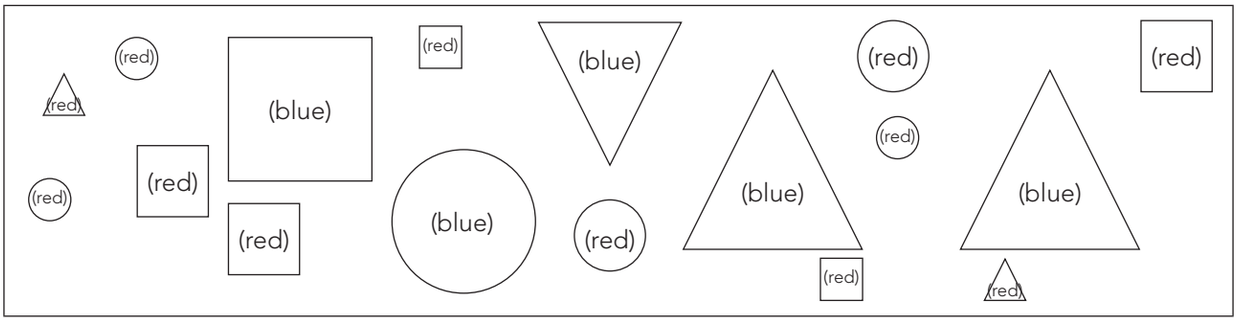
5. Homework activity (5 minutes) (See next page)

6. Reflection on lesson

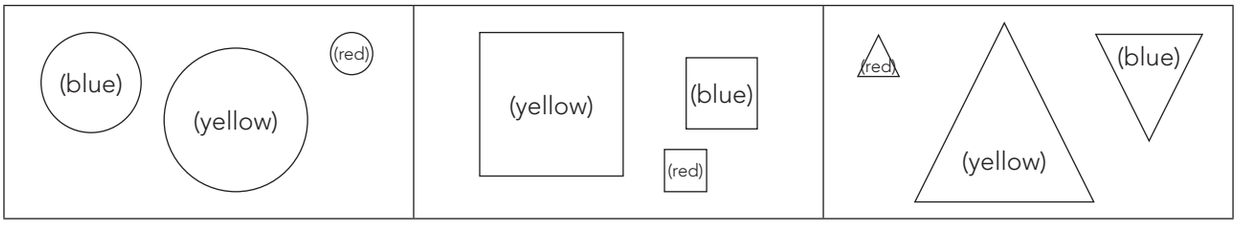
Term 2 Lesson 38: 2-D shapes

Classwork

1. Colour the small shapes red and the big shapes blue.



2. Colour the:
   a) Small shapes yellow
   b) Smaller shapes blue
   c) Smallest shapes red



Homework

1. Draw a circle, square and triangle. ( ) ( ) ( )
2. Label your drawings. (circle square triangle)

LESSON 39: 2-D SHAPES

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: Circles, triangles, squares, sort, compare, describe, size, colour, shape, straight sides, round sides, big, bigger, biggest, small, smaller, smallest, turned.

Prior knowledge:
Learners should have been taught how to:

- Recognise and name 2-D shapes, (circles, triangles and squares).
- Describe, sort and compare 2-D shapes in terms of; size, colour, shape, straight sided, round.

Concepts:

- Recognise and name 2-D shapes: circles, triangles and squares.
- Describe, sort and compare 2-D shapes in terms of: size, colour, shape, straight sided, round sided.

Resources: Shape cut-outs (see *Printable Resources*), shapes to colour (see *Printable Resources*), cardboard shapes (make your own using different colours).

DBE workbook activities relevant to this lesson:

- DBE worksheet 63 (pp. 134 and 135).

Assessment: Refer to the tracker for today's formal/informal oral, practical or written assessment activity.

Remediation: For learners who find it difficult to grasp the fact that triangles and squares remain triangles and squares even when their positions are changed, allow them to work with cardboard shapes and to take a square and a triangle and move them around and trace the same shape in various positions onto a piece of paper.

Enrichment: See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count forwards and backwards in 10s from 10 to 50.

1.2 Recall and strategies (10 minutes)

(Learners use number cards and hold up the card that gives the correct answer.)

	What is?	Answer
1.	3 more than 2?	5
2.	Double 5?	10
3.	0 less than 4?	4
4.	Half of 4?	2
5.	5 more than 2?	7

	What is?	Answer
6.	Double 1?	2
7.	6 less than 9?	3
8.	Half of 8?	4
9.	0 more than 1?	1
10.	Half of 6?	3

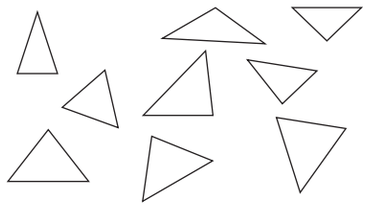
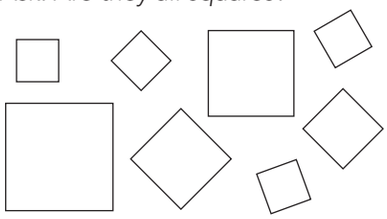
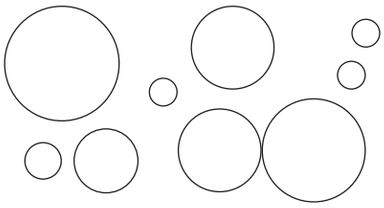
2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

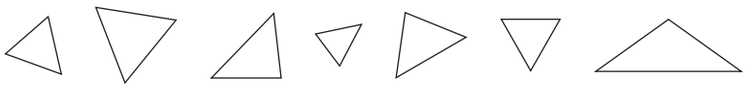
Activity 1: Learners work in groups

- Draw the following on the board.
- Discuss the collections of drawings in their groups. Circulate and make sure that they are all identifying the shapes correctly.

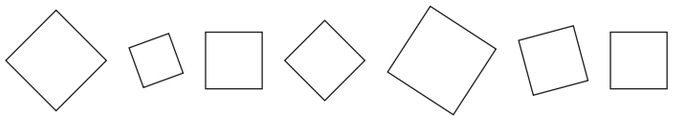
Ask: *Are they all triangles?*	Ask: *Are they all squares?*	Ask: *Are they all circles?*
		

Activity 2: Whole class activity

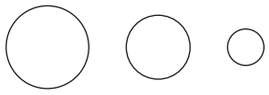
- Put a few cardboard triangles on the board.
- Discuss with the learners the fact that these shapes are all triangles and remain triangles even when they are turned in some way. E.g.



- Put a few cardboard squares on the board.
- Discuss with the learners the fact that these shapes are all squares and remain squares even when they are turned in some way. E.g.



- Put a few cardboard circles on the board.
- Discuss with the learners the fact that these shapes are all circles and remain circles even when they differ in size. E.g.



- Mix up all these cardboard shapes on the board and ask the learners to help you sort them out according to whether they have straight or round sides.

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

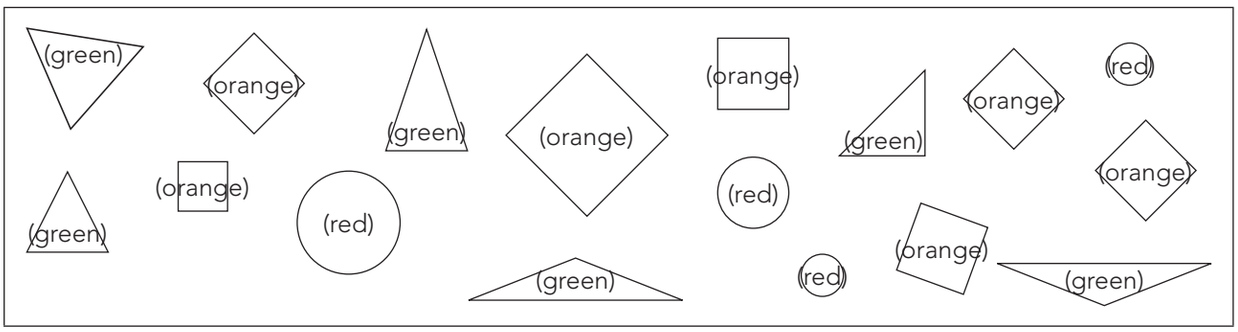
5. Homework activity (5 minutes) (See next page)

6. Reflection on lesson

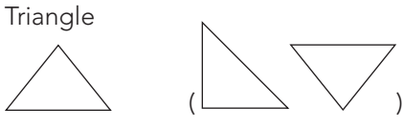
Term 2 Lesson 39: 2-D shapes

Classwork

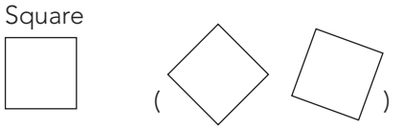
1. Colour all the: Triangles green, circles red and squares orange



2. Draw each of these shapes in two other positions.
   a) Triangle



   b) Square



Homework

1. Draw a triangle that looks different to this one.

2. Draw a picture using a triangle, a square and a circle. (a variety of drawings)

LESSON 40: 2-D SHAPES

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:** Circles, triangles, squares, sort, compare, describe, size, colour, shape, straight sides, round sides, big, bigger, biggest, small, smaller, smallest. **Prior knowledge:** Learners should have been taught how to: • Recognise and name 2-D shapes (circles, triangles and squares). • Describe, sort and compare 2-D shapes in terms of; size, colour, shape, straight sided, round sided. **Concepts:** • Recognise and name 2-D shapes: circles, triangles and squares. • Describe, sort and compare 2-D shapes in terms of; size, colour, shape, straight sided, round sided. **Resources:** Shape cut-outs (see *Printable Resources*), scrap paper, shapes to colour (see *Printable Resources*). **DBE workbook activities relevant to this lesson:** • DBE worksheet 64b (pp. 138 and 139). **Assessment:** Refer to the tracker for today's formal/informal oral, practical or written assessment activity.
Remediation: For learners who struggle with this area of work, do more revision with concrete apparatus. Give the learners coloured cardboard circles, triangles and squares of varying sizes and colours and allow them to practise grouping the shapes according to shapes, then colours and then size. **Enrichment:** See enrichment activity cards.

1. Mental mathematics

1.1 Counting (5 minutes)

- Count forwards and backwards in 10s from 10 to 50.

1.2 Recall and strategies (10 minutes)

(Give learners number cards. They hold up the card that gives the correct answer. Let learners use their fingers to solve the problems if needed).

		Answer
1.	Lebo has 3 sweets. Sue has 3 sweets. *How many sweets are there?*	6
2.	Lebo has 4 apples. Sue has 1 apple. *How many apples are there?*	5
3.	Lebo has 2 cats. Sue has 6 cats. *How many cats are there?*	8
4.	Lebo has 2 books. Sue has 2 books. *How many books are there?*	4
5.	Lebo has 7 hats. Sue has 3 hats. *How many hats are there?*	10

2. Correction/reflection on homework (15 minutes)

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

3. Lesson content – concept development (30 minutes)

Activity 1: Learners work in groups

- Give each learner a collection of cut out shapes (using the *Printable Resource*), including the following shapes: 3 squares, 5 triangles, and 4 circles – all varying in size.
- Ask the learners to talk about and count the number of shapes.
- Ask the learners:
  - *How many circles are there?*
  - *How many squares are there?*
  - *How many triangles are there?*

Activity 2: Learners work in groups

Give each group a few old magazines/newspapers/newspaper advert inserts.

Ask each learner to:

- Find a few circles, squares and triangles in the old magazines.
- Ask the learners to cut out the shapes and then to sort them according to shape.
- Ask the learners to then sort them according to size.
- Learners should paste their sorted shapes into their Mathematics books.
- Learners can then make a drawing of their shape collections on scrap paper.
- These drawings are put up on the walls around the classroom and discussed by all the learners in the class.

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

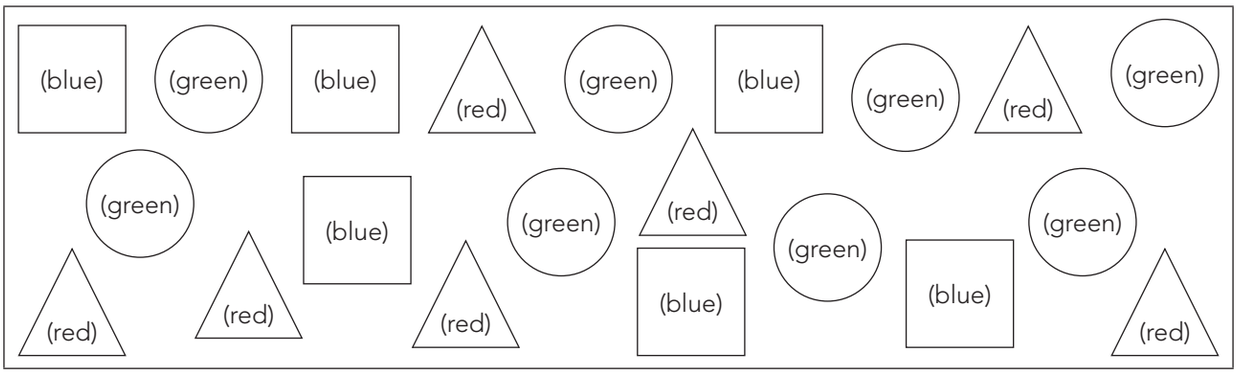
5. Homework activity (5 minutes) (See next page)

6. Reflection on lesson

Term 2 Lesson 40: 2-D shapes

Classwork

1. Sort the shapes by colouring all the circles green, the triangles red and the squares blue.



2. Count the number of each kind of shape:
   a) Triangles
   b) Circles
   c) Squares

3. How many triangles are there? (7)

4. How many circles are there? (8)

5. How many squares are there? (6)

Homework

1. Use old magazines or newspaper to cut out some circles, squares and triangles of different colours and sizes make a picture. (a variety of drawings)

2. Paste the picture into your homework book.

PRINTABLE RESOURCES

Resource Sheets

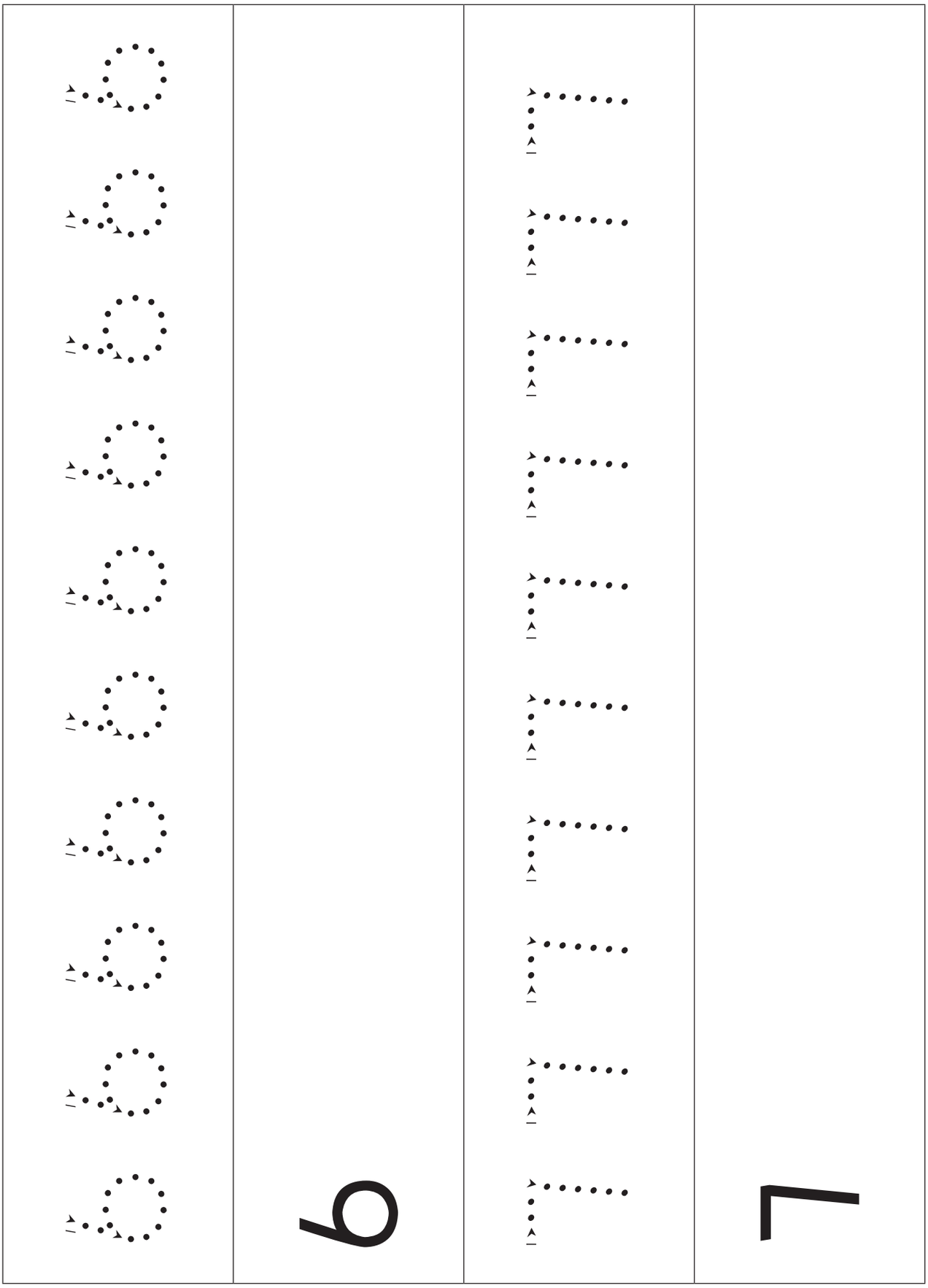
This is a list of the mathematical resources that you will need this term. You need to make sure that you have them for the lessons for which they are recommended.

1. Number tracing cards – numbers 6 and 7 (Lesson 1 and 2)
2. Number tracing cards – numbers 8 and 9 (Lesson 3 and 4)
3. Number tracing cards – number 10 (Lesson 5)
4. Number and number name cards (21–30) (Lesson 10 +)
5. Number and number name cards (31–40) (Lesson 11 +)
6. Number and number name cards (41–50) (Lesson 12 +)
7. Flashcards (Lesson 15, 16 and 17)
8. Doubles hand-out (Lesson 18)
9. Shape cut-outs (Lesson 21, 30, 38, 39 and 40)
10. Pattern strips (Lesson 21)
11. 1–20 number board (Lesson 23 and 24)
12. 1–50 number board (Lesson 25)
13. 0–20 number line (Lesson 22 and 23)
14. Money cut-outs – coins (Lesson 35, 36 and 37)
15. Shop items (Lesson 36)
16. Shapes to colour (Lesson 38, 39 and 40)

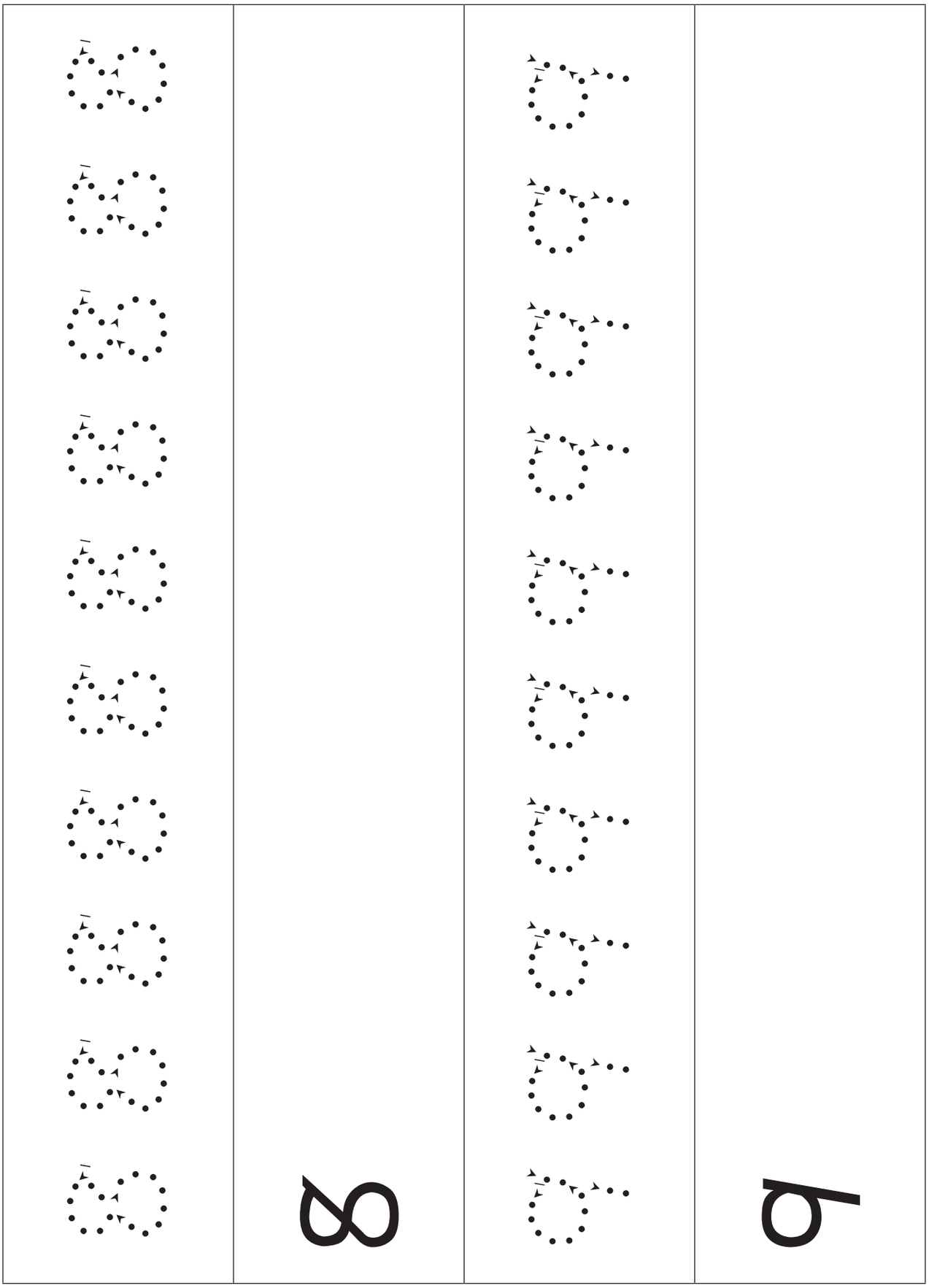
Resources for each day of teaching

There are also other resources such as informal resources (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; this list is given in the lesson plan each day. Prepare yourself, so that you have the necessary resources for the lessons on a daily basis.

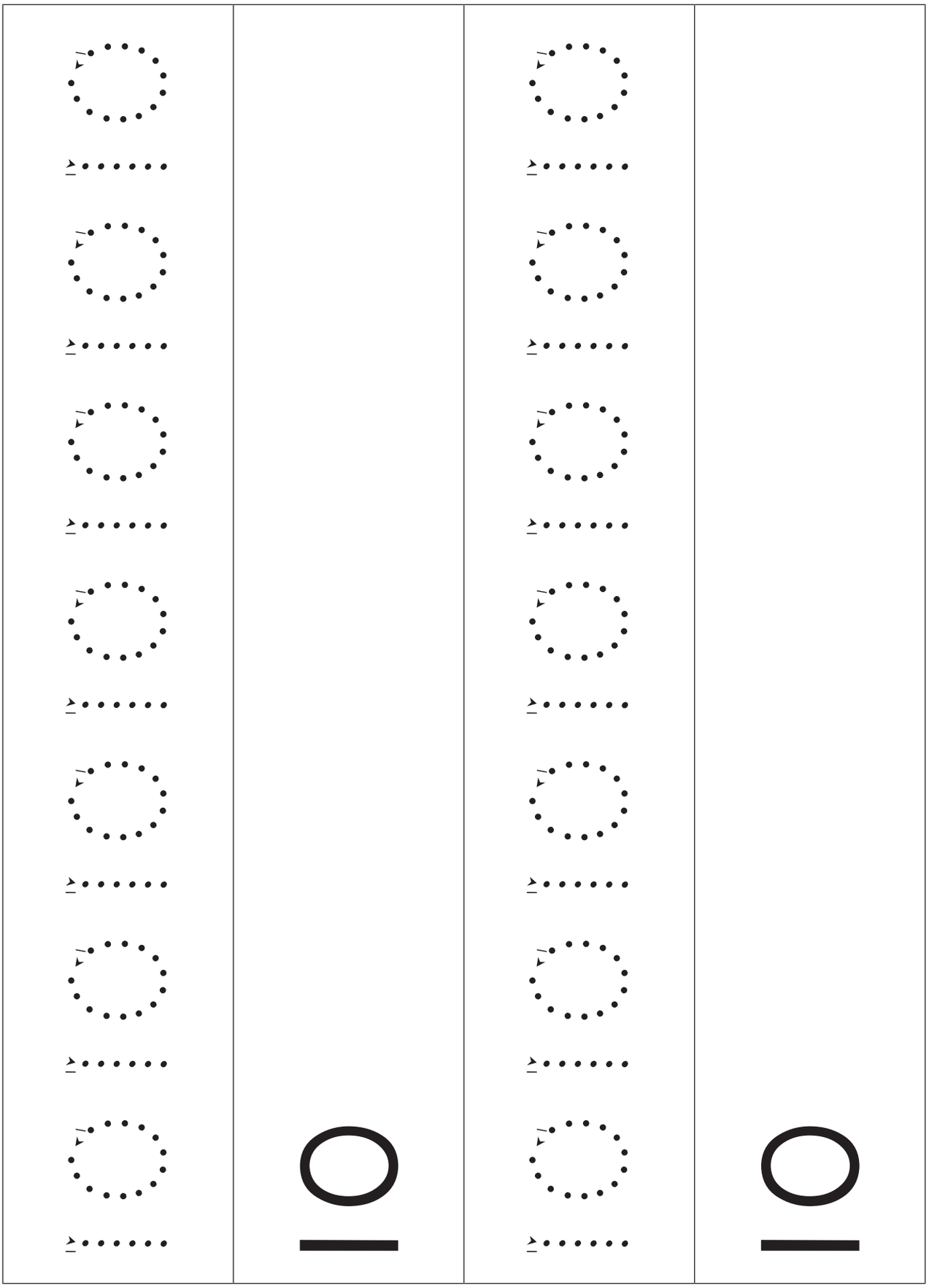
1. Amakhadi okutreyisa amanani (Isifundo 1 nesesi 2)



2. Amakhadi okutreyisa amanani (Isifundo 3 nesesi 4)



3. Amakhadi okutreyisa amanani (Isifundo 5)



4. Number and number name cards (21–30) (Lesson 10 +)

21	twenty one
22	twenty two
23	twenty three
24	twenty four
25	twenty five

26	twenty six
27	twenty seven
28	twenty eight
29	twenty nine
30	thirty

4.Inani namakhadi anamanani (21–30) (Isifundo 10)

21	amashumi amabini ananye
22	amashumi amabini anambini
23	amashumi amabini anantathu
24	amashumi amabini anane
25	amashumi amabini anesihlanu

26	amashumi amabini anesithandathu
27	amashumi amabini anesixhenxe
28	amashumi amabini anesibhozo
29	amashumi amabini anesithoba
30	amashumi am-athathu

5. Number and number name cards (31–40) (Lesson 11 +)

31	thirty one
32	thirty two
33	thirty three
34	thirty four
35	thirty five

36	thirty six
37	thirty seven
38	thirty eight
39	thirty nine
40	forty

5. Inani namakhadi anamanani (31–40) (Isifundo 11)

31	amashumi am-athathu ananye
32	amashumi am-athathu anambini
33	amashumi amathathu anantathu
34	amashumi amathathu anane
35	amashumi amathathu anesihlanu

36	amashumi amathathu anesithandathu
37	amashumi amathathu anesixhenxe
38	amashumi amathathu anesibhozo
39	amashumi amathathu anesithoba
40	amashumi amane

6. Number and number name cards (41–50) (Lesson 12 +)

41	forty one
42	forty two
43	forty three
44	forty four
45	forty five

46	forty six
47	forty seven
48	forty eight
49	forty nine
50	fifty

6. Inani namakhadi anamanani (41–50) (Isifundo 12)

41	amashumi amane ananye
42	amashumi amane anambini
43	amashumi amane anantathu
44	amashumi amane anane
45	amashumi amane anesihlanu

46	amashumi amane anesithandathu
47	amashumi amane anesixhenxe
48	amashumi amane anesibhozo
49	amashumi amane anesithoba
50	amashumi amahlanu

7. Flashcards (Lesson 15, 16 and 17)

+	makes	=
+	makes	=
+	makes	=
+	makes	=
+	makes	=
+	makes	=

7. Oonotsheluza (Isifundo 15, 26, nese 17)

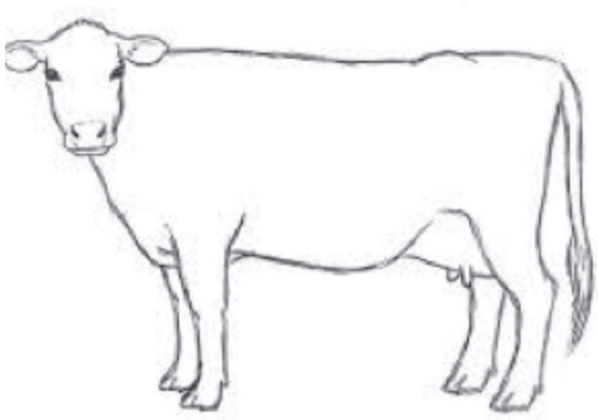
+	benza	=
+	benza	=
+	benza	=
+	benza	=
+	benza	=
+	benza	=

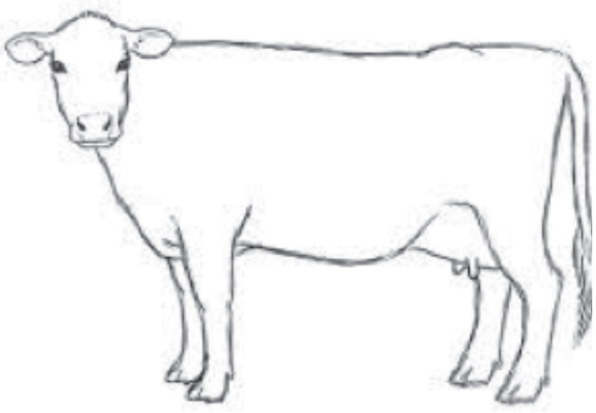
Make sure to use the correct form of 'make' in context in order to check subject verb agreement.

8. Izixhobo ezincedisa ukuphinda (Isifundo 18)

iitrayisekile

iinkomo

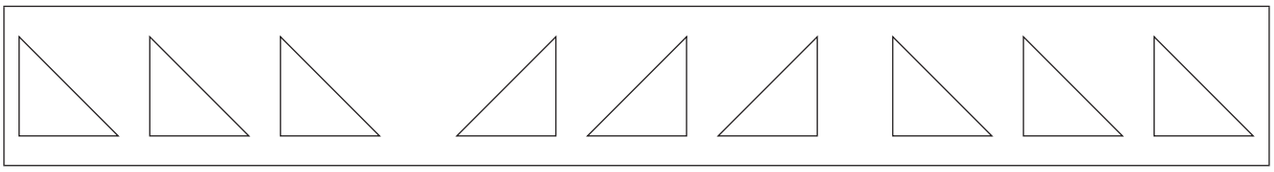


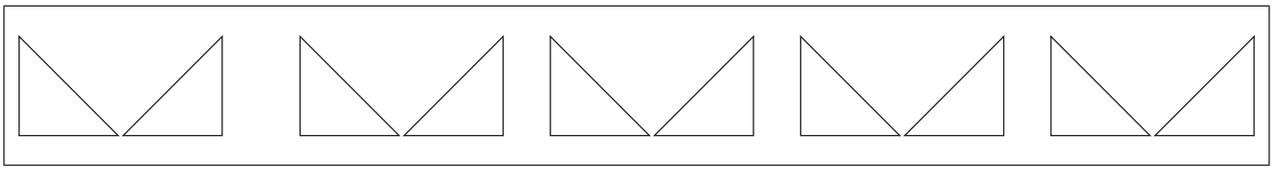


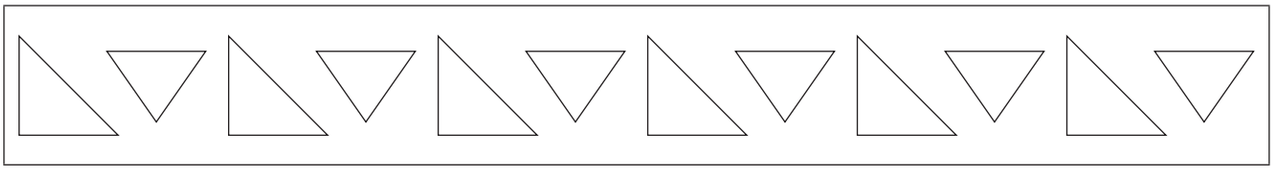
izandla

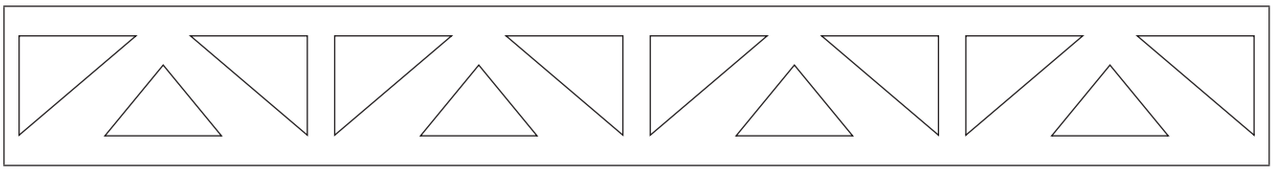
9. Imisiko yeemilo (izifundo 21+)

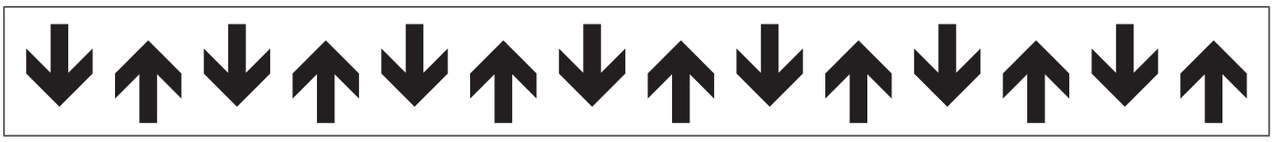
10. Imicu yeepatheni (Isifundo 21)

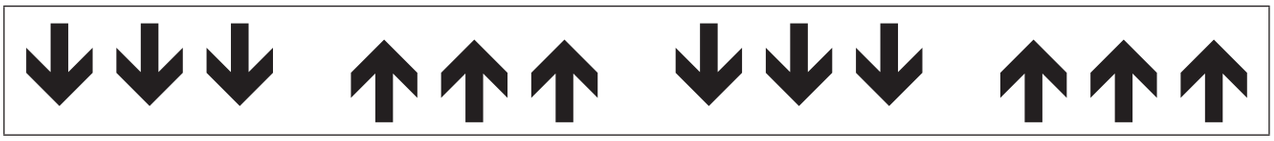


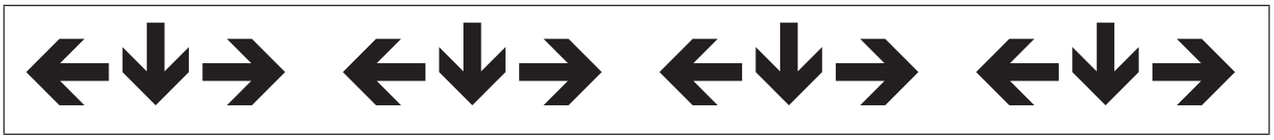












11. Ibhodi yamanani ukusuka ku-1 – 20 (Isifundo 22 nesama- 23)

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

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

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

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

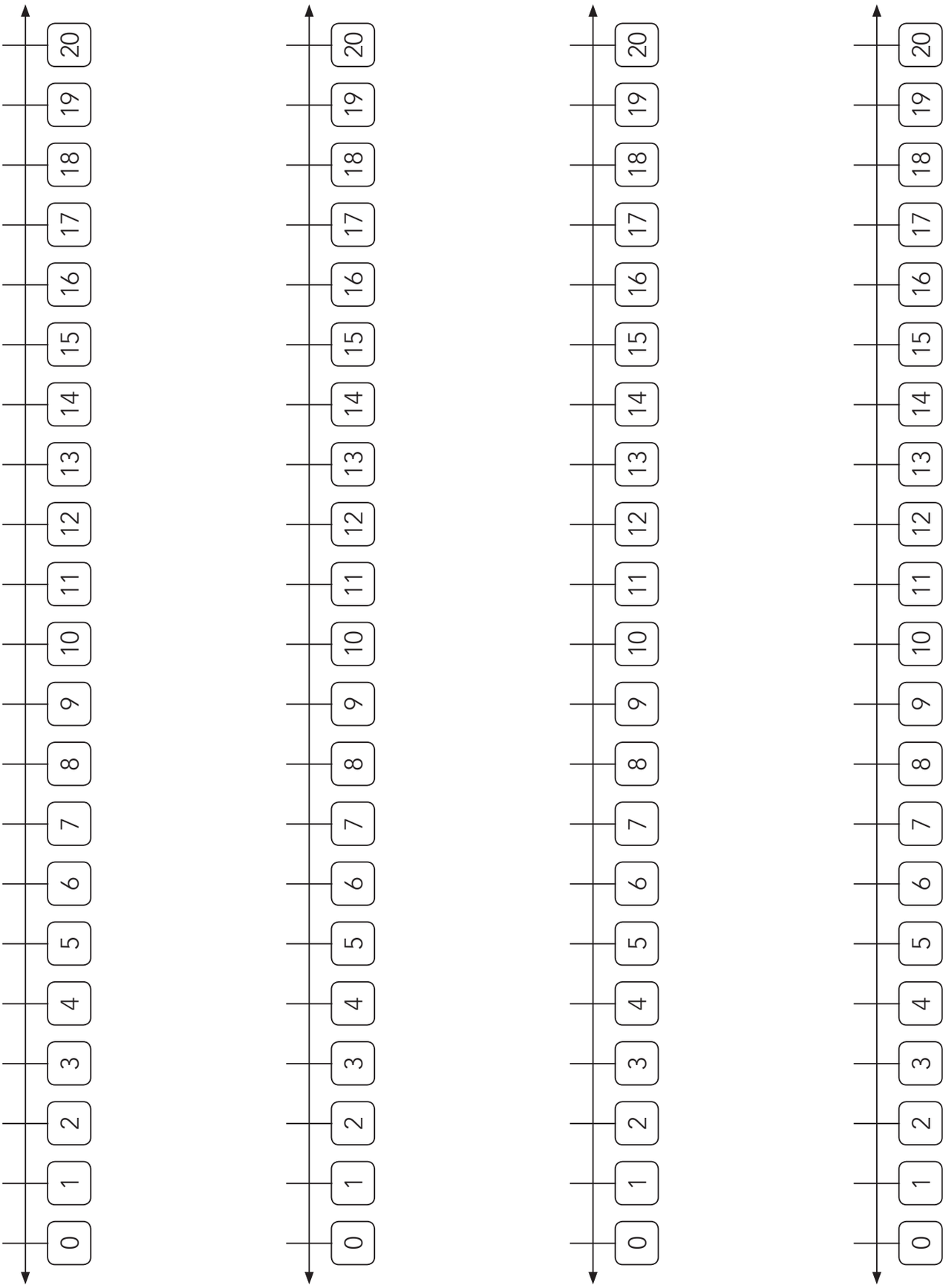
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20

12. Ibhodi yamanani 1-50 (Isifundo 25)

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

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

13. Umgca-manani 1-20 (Isifundo 22 nesama-23)

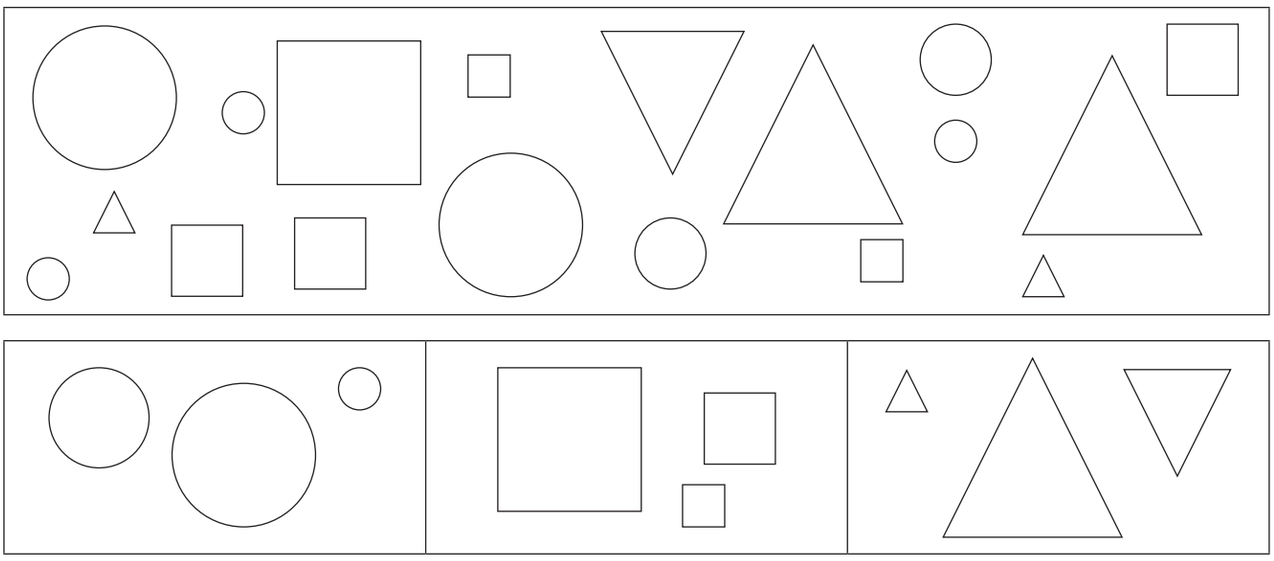


14. Imisiko yemali - iingqekembe (Isifundo 35, 36 nesama- 37)

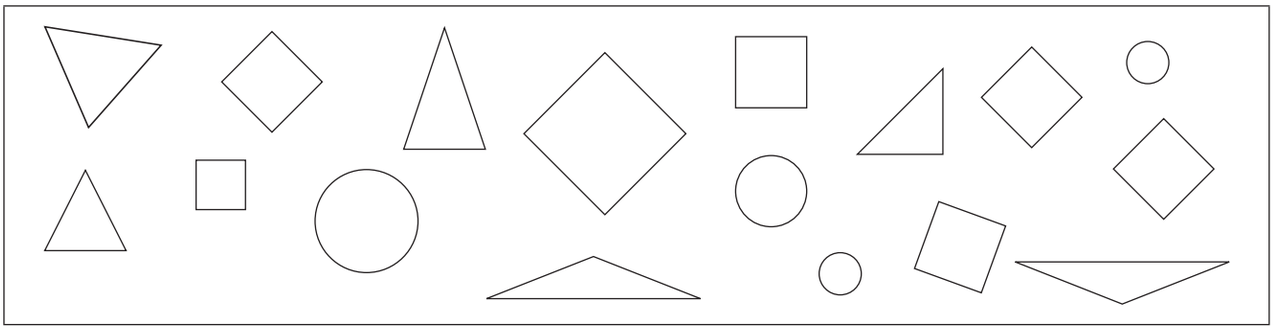
15. Izinto zasevenkileni (Isifundo 36)

16. Iimilo zokufaka imibala (Isifundo 38, 39 nezama 40)

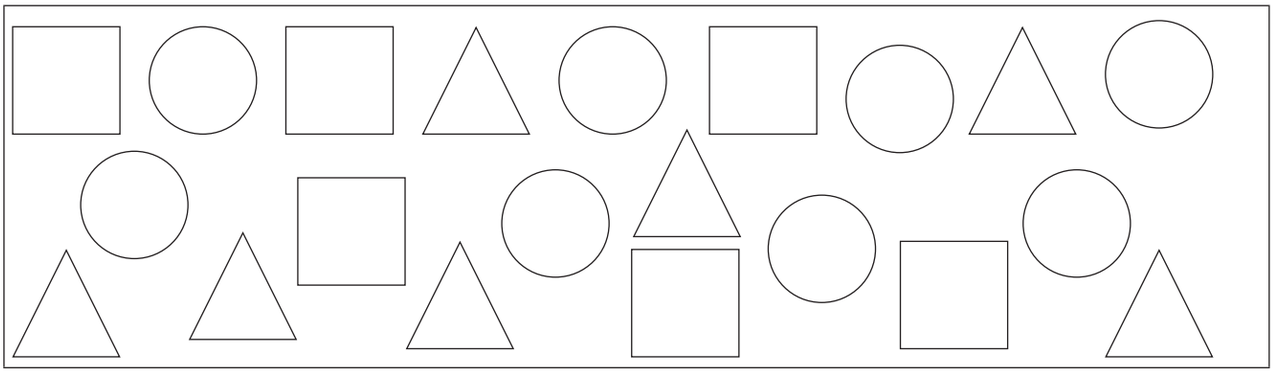
Isifundo 38



Isifundo 39



Isifundo 40



Mental Mathematics Challenge Cards: Bilingual Version

Each term there will be a set of eight mental mathematics challenge cards. If you make them into cards and collect them over the course of the year, you will have a set of one card per teaching week for a year.

Use of the mental mathematics challenge cards

Once a week learners should do mental mathematics in written form, so that there is some record of your daily mental mathematics activities. You can use the mental mathematics challenge cards for this purpose.

Learners should not use concrete material to work out the answers in mental mathematics. If learners need to, let them use their fingers as a concrete aid during mental mathematics, but make a note of who they are, and then spend time with them during remediation to help them with basic number and operation skills. Mental mathematics skills improve hugely from Grade 1 to Grade 3. In Grade 1 learners might only manage five questions, especially when they have to write the answers, but by Grade 3 learners should manage ten questions with written answers easily.

Maths Challenge Card 1

What number comes after?

Ikhadi Lezibalo ezingumceli-mngeni 1

Leliphi inani eliza emva kwe -?

1. 2
2. 4
3. 7
4. 1
5. 8
6. 5
7. 9
8. 3
9. 6
10. 0

Maths Challenge Card 2

What number comes before?

Ikhadi Lezibalo ezingumceli-mngeni 2

Leliphi inani eliza phambi kwe-?

1. 4
2. 10
3. 7
4. 2
5. 5
6. 9
7. 6
8. 1
9. 8
10. 3

Maths Challenge Card 3

Count

Ikhadi Lezibalo ezingumceli-mngeni 3

Bala

1. 7, 8, __, __
2. 4, 5, __, __
3. 0, 1, __, __
4. 6, 7, __, __
5. 2, 3, __, __
6. 5, 6, __, __
7. 1, 2, __, __
8. 3, __, __, 6
9. 8, __, __
10 7, __, __, 10

Maths Challenge Card 4

Order from smallest to biggest.

Ikhadi Lezibalo ezingumceli-mngeni 4

Landelelanisa amanani ukusuka kwelincinane ukuya kwelikhulu

1. 5, 3, 7
2. 10, 4, 9
3. 8, 1, 6
4. 9, 7, 2
5. 1, 0, 10
6. 3, 9, 6
7. 2, 8, 5
8. 7, 4, 6
9. 8, 4, 1
10. 10, 5, 0

Maths Challenge Card 1: Answers

What number comes after?

Ikhadi Lezibalo ezingumceli-mngeni 1: Iimpendulo

Leliphi inani eliza emva kwe -?

1. 3
2. 5
3. 8
4. 2
5. 9
6. 6
7. 10
8. 4
9. 7
10. 1

Maths Challenge Card 2: Answers

What number comes before?

Ikhadi Lezibalo ezingumceli-mngeni 2: Iimpendulo

Leliphi inani eliza phambi kwe-?

1. 3
2. 9
3. 6
4. 1
5. 4
6. 8
7. 5
8. 0
9. 7
10. 2

Maths Challenge Card 3: Answers

Count

Ikhadi Lezibalo ezingumceli-mngeni 3: Iimpendulo

Bala

1. 7, 8, 9, 10
2. 4, 5, 6, 7
3. 0, 1, 2, 3
4. 6, 7, 8, 9
5. 2, 3, 4, 5
6. 5, 6, 7, 8
7. 1, 2, 3, 4
8. 3, 4, 5, 6
9. 8, 9, 10
10. 7, 8, 9, 10

Maths Challenge Card 4: Answers

Order from smallest to biggest.

Ikhadi Lezibalo ezingumceli-mngeni 4: Iimpendulo

Landelelanisa amanani ukusuka kwelincinane ukuya kwelikhulu.

1. 3, 5, 7
2. 4, 9, 10
3. 1, 6, 8
4. 2, 7, 9
5. 0, 1, 10
6. 3, 6, 9
7. 2, 5, 8
8. 4, 6, 7
9. 1, 4, 8
10. 0, 5, 10

Maths Challenge Card 5

1 more than

Ikhadi Lezibalo ezingumceli-mngeni 5

Lingaphezulu nge-1 kwi-:

1. 1
2. 6
3. 2
4. 8
5. 4
6. 9
7. 0
8. 3
9. 5
10. 7

Maths Challenge Card 6

2 more than

Ikhadi Lezibalo ezingumceli-mngeni 6

Lingaphezulu ngesi-2 kwi-:

1. 5
2. 8
3. 2
4. 6
5. 0
6. 3
7. 1
8. 4
9. 7
10. 9

Maths Challenge Card 7

1 less than

Ikhadi Lezibalo ezingumceli-mngeni 7

Lincinane ngesi-1kune -:

1. 10
2. 7
3. 4
4. 2
5. 9
6. 6
7. 3
8. 1
9. 5
10. 8

Maths Challenge Card 8

Add

Ikhadi Lezibalo ezingumceli-mngeni 8

Dibanisa

1. 1 + 3 =
2. 0 + 1 =
3. 2 + 2 =
4. 4 + 1 =
5. 0 + 5 =
6. 1 + 1 =
7. 2 + 1 =
8. 3 + 2 =
9. 4 + 0 =
10. 1 + 4 =

Maths Challenge Card 5: Answers

1 more than

Ikhadi Lezibalo ezingumceli-mngeni 5: Iimpendulo

Lingaphezulu nge-1 kwi- :

1. 2
2. 7
3. 3
4. 9
5. 5
6. 10
7. 1
8. 4
9. 6
10. 8

Maths Challenge Card 6: Answers

2 more than

Ikhadi Lezibalo ezingumceli-mngeni 6: Iimpendulo

Lingaphezulu ngesi-2 kwi-:

1. 7
2. 10
3. 4
4. 8
5. 2
6. 5
7. 3
8. 6
9. 9
10. 11

Maths Challenge Card 7: Answers

1 less than

Ikhadi Lezibalo ezingumceli-mngeni 7: Iimpendulo

Lincinane ngesi-1kune -:

1. 9
2. 6
3. 3
4. 1
5. 8
6. 5
7. 2
8. 0
9. 4
10. 7

Maths Challenge Card 8: Answers

Add

Ikhadi Lezibalo ezingumceli-mngeni 8: Iimpendulo

Dibanisa

1. 4
2. 1
3. 4
4. 5
5. 5
6. 2
7. 3
8. 5
9. 4
10. 5

Enrichment Activity Cards: English Version

Each term a set of new enrichment cards will be provided. You should retain this set, as they will not be reproduced each term.

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 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 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 looks for cards can easily find the one they want to use.

Enrichment Activity 2.1

How many fives can you find?

1	5	5		3	4
	3			3	4
3	2	5	1		1
	1	2	5	5	4
3	5	4	1	3	4
4	2	1	5	2	1
5	5	2	5	4	2
3	1		1	4	4
4		2			2

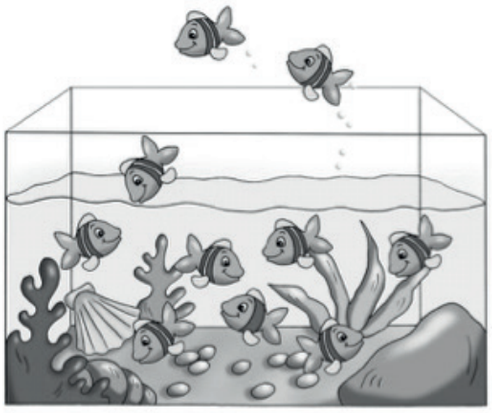
Enrichment Activity 2.2

How many blocks do you find with the answer five?

1 + 2	3 + 1	1 + 3	
	2 + 2		
4 + 0	4 + 1	2 + 0	2 + 3
	2 + 1 + 1	1 + 1	1 + 1 + 1
3 + 1 + 1	2 + 1	3 + 2	2 + 2 + 1
0 + 5	1 + 4	2 + 0 + 3	1 + 2
1 + 0 + 1	0 + 2	0 + 4	5 + 0

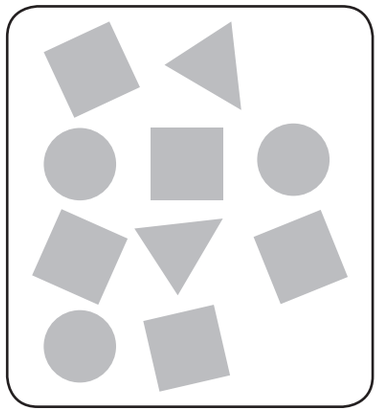
Enrichment Activity 2.3

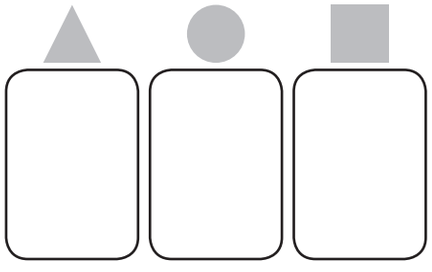
Divide the fish equally amongst the bowls.



Enrichment Activity 2.4

Sort the shapes in the boxes below.





Enrichment Activity 2.1: Answers

There are 10 number fives.

Enrichment Activity 2.2: Answers

9 blocks have an answer of 5.

1 + 2	3 + 1	1 + 3	
	2 + 2		
4 + 0	4 + 1	2 + 0	2 + 3
	2 + 1 + 1	1 + 1	1 + 1 + 1
3 + 1 + 1	2 + 1	3 + 2	2 + 2 + 1
0 + 5	1 + 4	2 + 0 + 3	1 + 2
1 + 0 + 1	0 + 2	0 + 4	5 + 0

Enrichment Activity 2.3: Answers

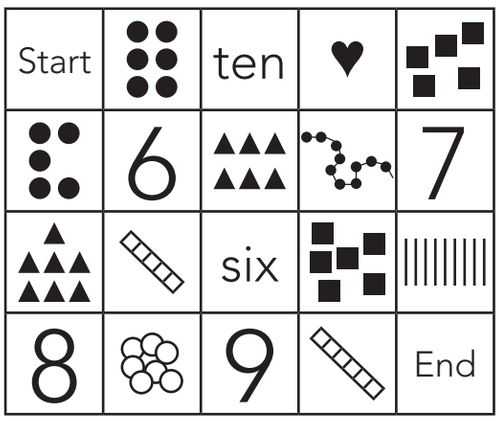
Two fish in each bowl.

Enrichment Activity 2.4: Answers

Note that the orientation of the triangles and squares differs.

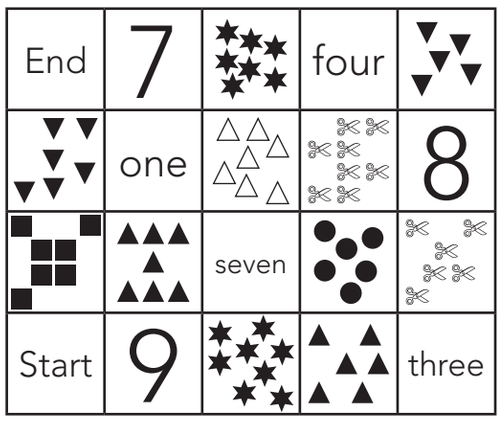
Enrichment Activity 2.5

Find the path from start to end by placing small stones on 6.



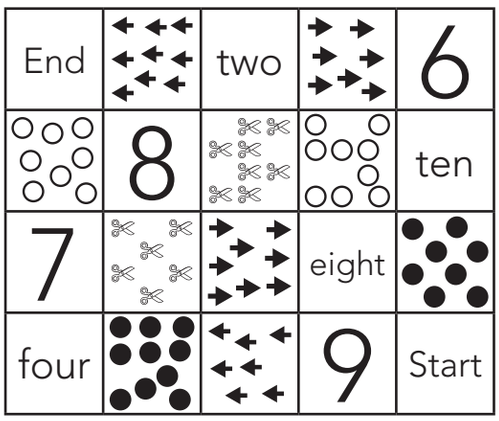
Enrichment Activity 2.6

Find the path from start to end by placing small stones on 7.



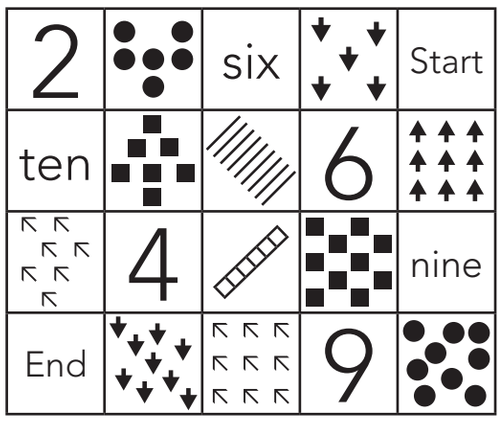
Enrichment Activity 2.7

Find the path from start to end by placing small stones on 8.

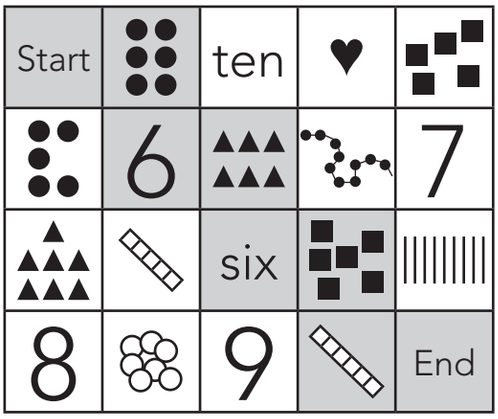


Enrichment Activity 2.8

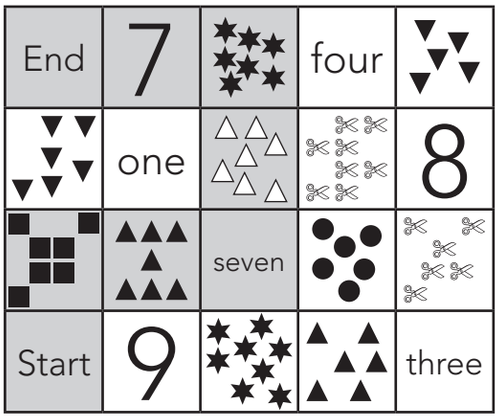
Find the path from start to end by placing small stones on 9.



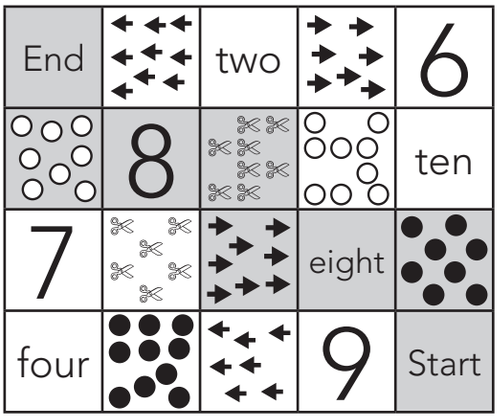
Enrichment Activity 2.5: Answers



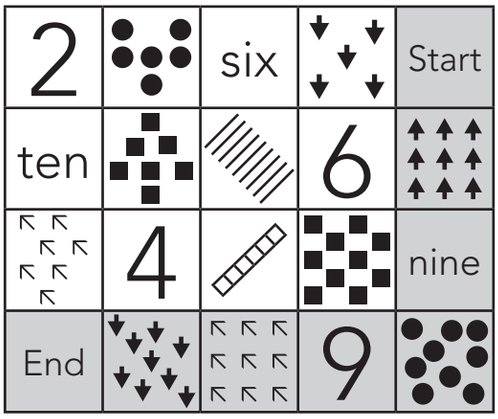
Enrichment Activity 2.6: Answers



Enrichment Activity 2.7: Answers



Enrichment Activity 2.8: Answers



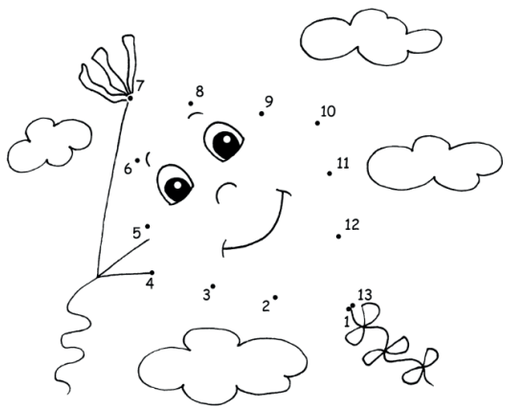
Enrichment Activity 2.9

Find the path from start to end by placing small stones on 10.

nine	7			End
8		six		
	ten			10
Start		seven	9	

Enrichment Activity 2.10

Follow the numbers to complete the picture.



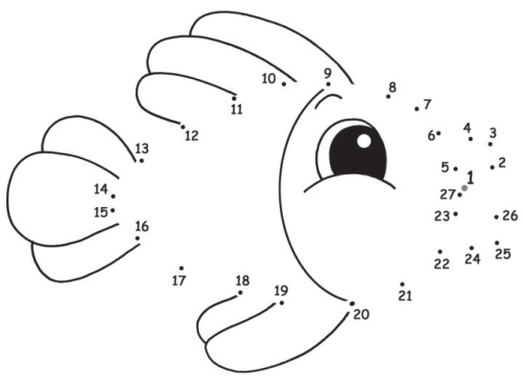
Enrichment Activity 2.11

Complete the Suduko board only using numbers 1 to 4.

			2
	1		4
3		4	
1			

Enrichment Activity 2.12

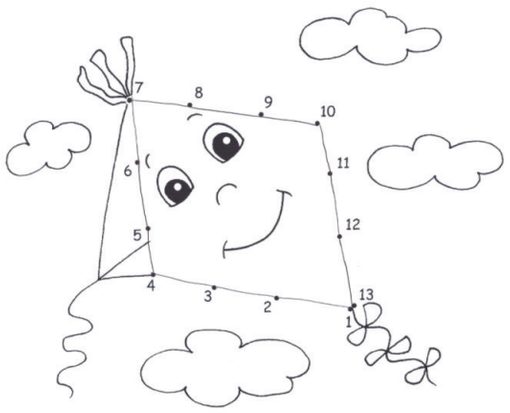
Follow the numbers to complete the picture.



Enrichment Activity 2.9: Answers

nine	7			End
8		six		
	ten			10
Start		seven	9	

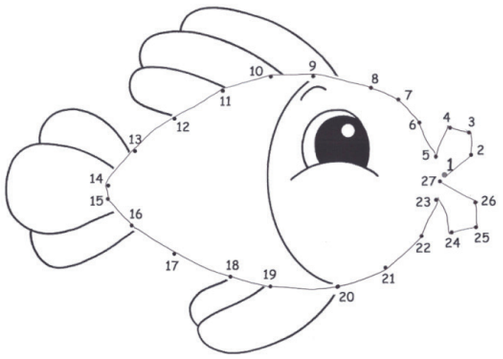
Enrichment Activity 2.10: Answers



Enrichment Activity 2.11: Answers

4	3	1	2
2	1	3	4
3	2	4	1
1	4	2	3

Enrichment Activity 2.12: Answers



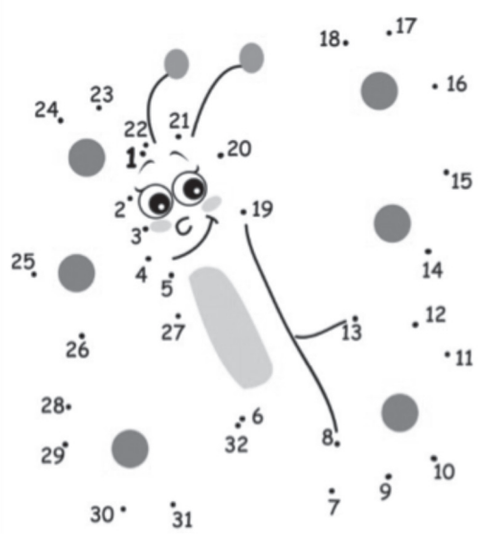
Enrichment Activity 2.13

Complete the Sudoku puzzle using numbers 1 to 4.

	3		
	1	2	
	4	1	
		3	

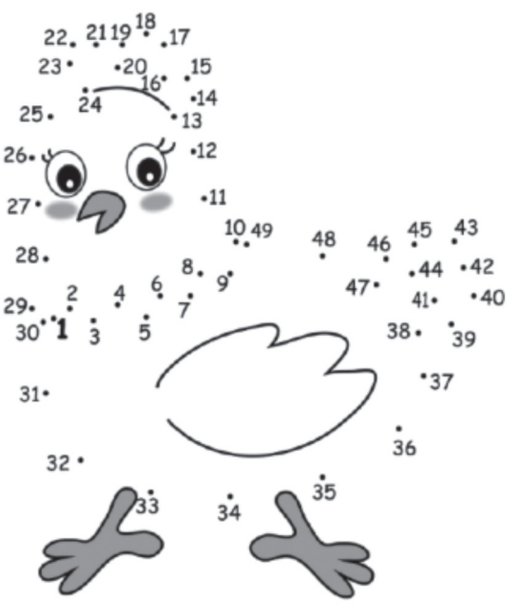
Enrichment Activity 2.14

Complete the number to number picture.



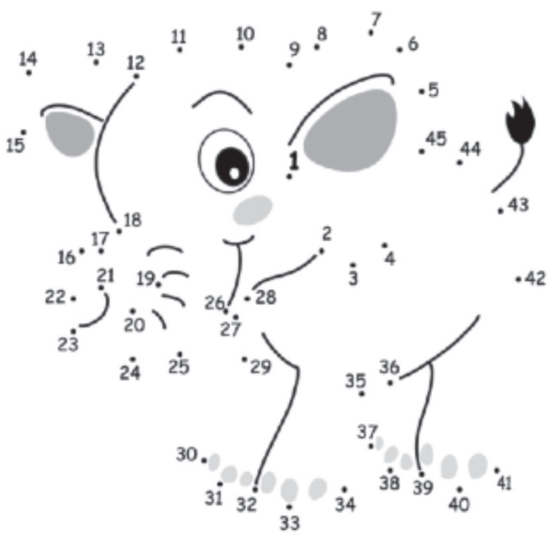
Enrichment Activity 2.15

Complete the number to number picture.

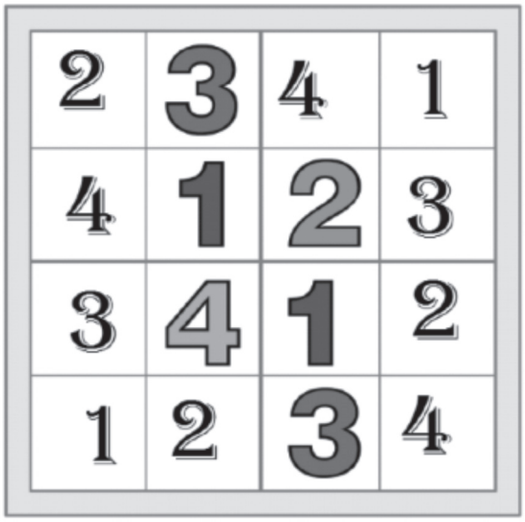


Enrichment Activity 2.16

Complete the number to number picture.

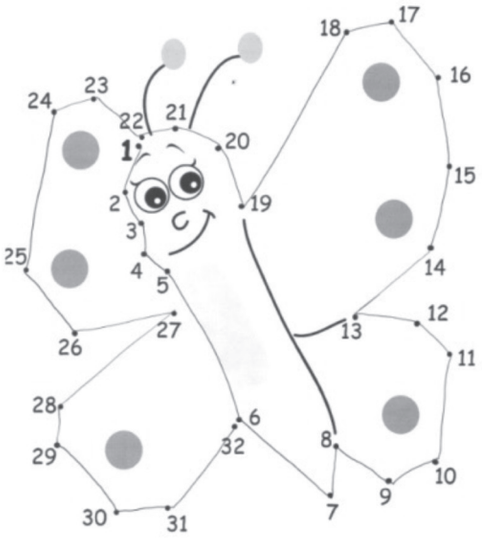


Enrichment Activity 2.13: Answers

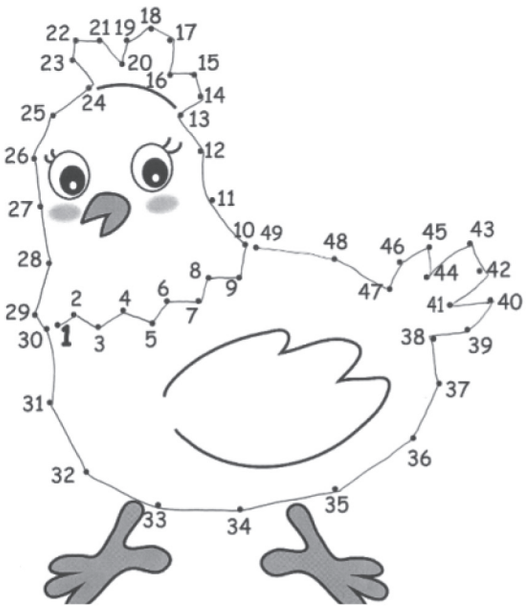


2	3	4	1
4	1	2	3
3	4	1	2
1	2	3	4

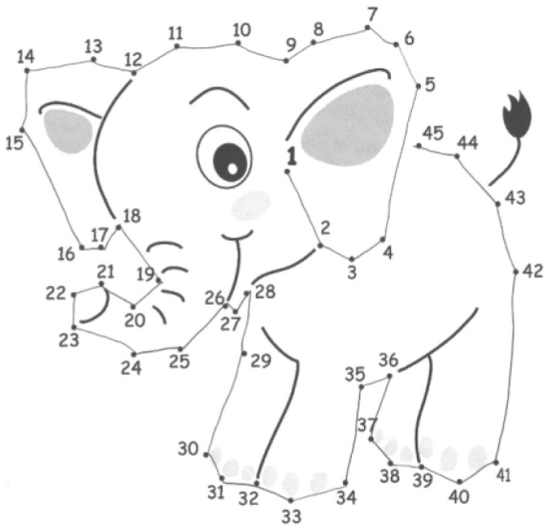
Enrichment Activity 2.14: Answers



Enrichment Activity 2.15: Answers

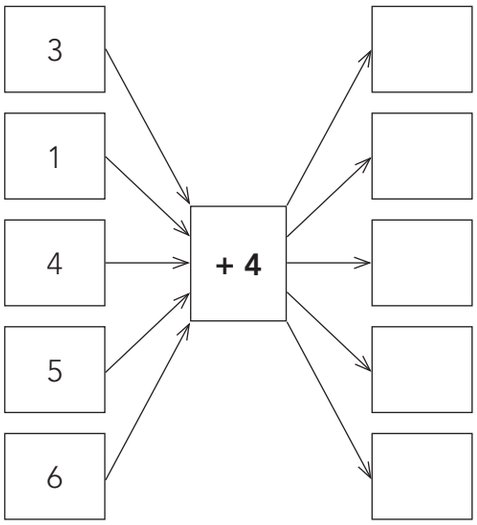


Enrichment Activity 2.16: Answers



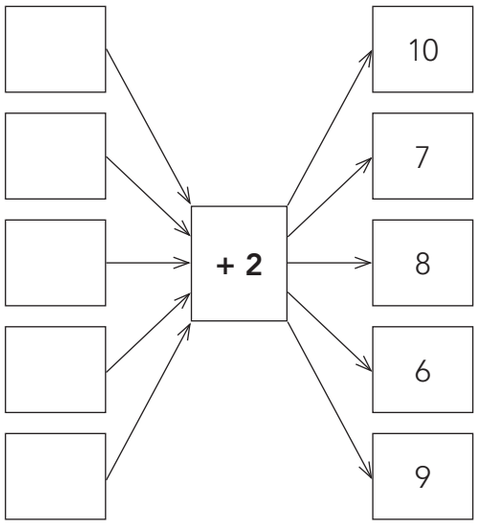
Enrichment Activity 2.17

Complete the spider diagram.



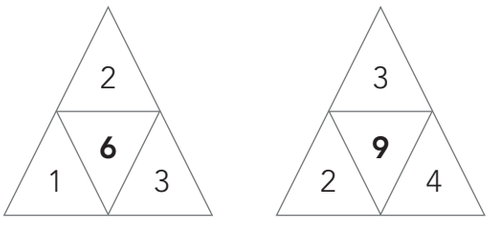
Enrichment Activity 2.18

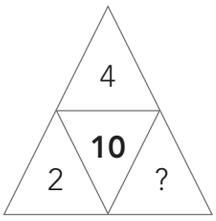
Complete the spider diagram.



Enrichment Activity 2.19

Look at the two top triangles, then work out what number should replace the question mark in the bottom triangle.

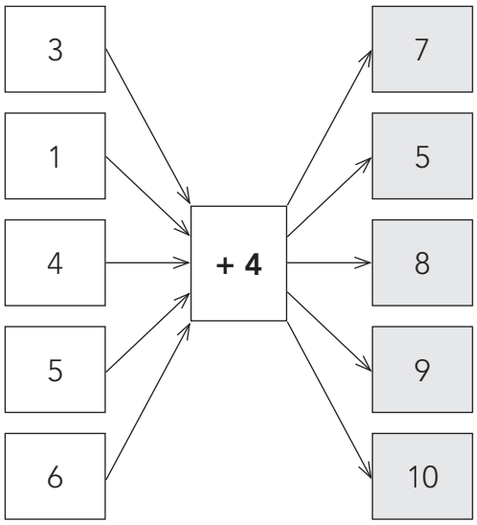




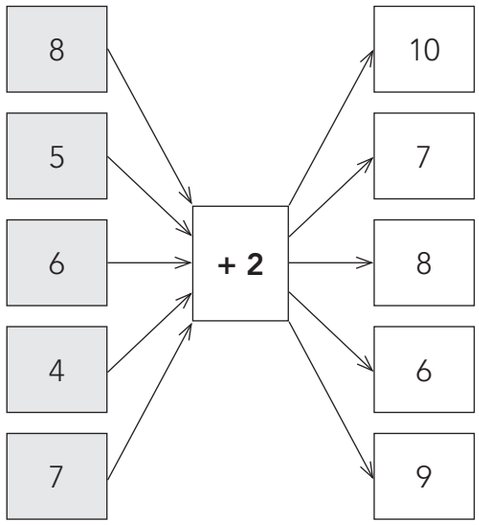
Enrichment Activity 2.20

I bought 4 sweets. My sister bought 3 sweets and my cousin five sweets. How many sweets did my cousin and I buy altogether?

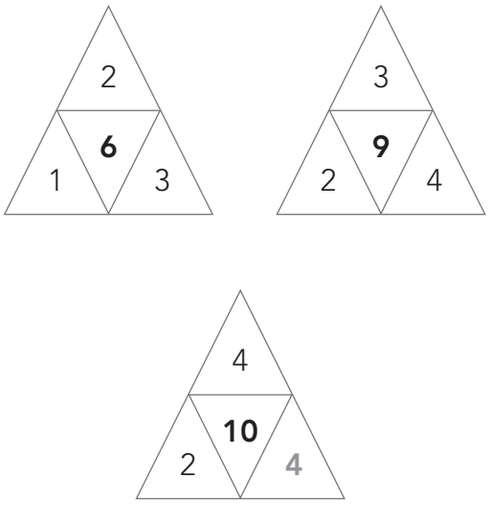
Enrichment Activity 2.17: Answers



Enrichment Activity 2.18: Answers



Enrichment Activity 2.19: Answers



Enrichment Activity 2.20: Answers

Note that the question asks: "How many sweets did my cousin (not my sister) and I buy altogether?"

4 + 5 = 9

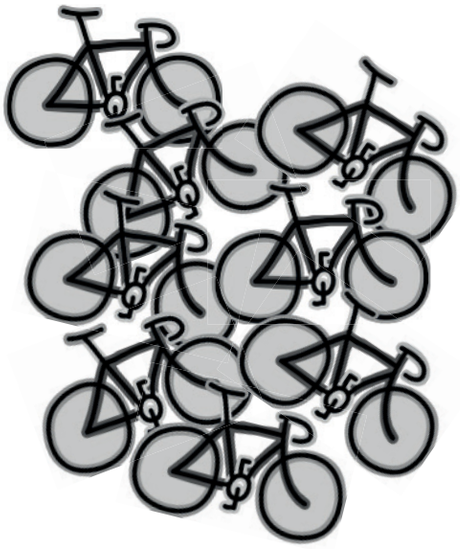
My cousin and I bought 9 sweets altogether.

Enrichment Activity 2.21

How many pairs of shoes can you make?

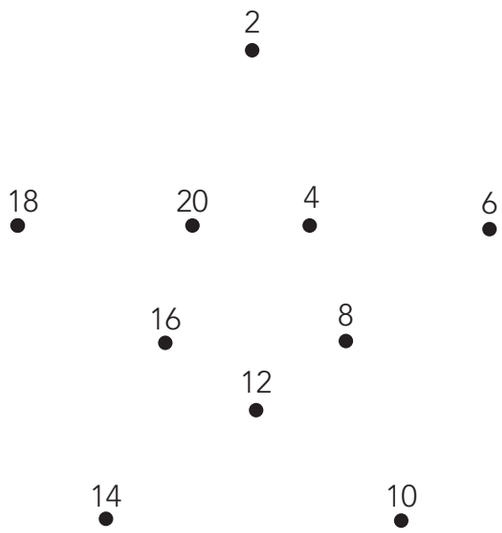
Enrichment Activity 2.22

How many bicycle wheels are there?



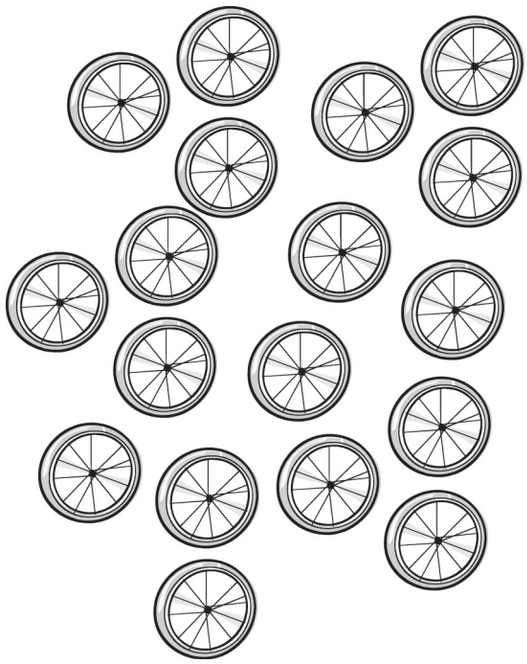
Enrichment Activity 2.23

Count in twos. What shape does it form?



Enrichment Activity 2.24

How many tricycles can you build?



Enrichment Activity 2.21: Answers

There are 16 shoes.

If I put it in groups of 2, I will get 8 groups.

There are 8 pairs of shoes.

Enrichment Activity 2.22: Answers

There are 8 bicycles.

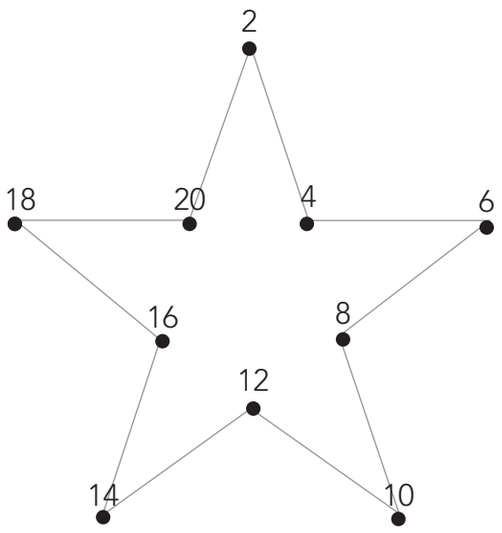
Each bicycle has 2 wheels.

I can count it: 2, 4, 6, 8, 10, 12, 14, 16.

There are 16 bicycle wheels.

Enrichment Activity 2.23: Answers

A star.



Enrichment Activity 2.24: Answers

There are 18 tricycle wheels.

If I place it in groups of 3, I can make 6 groups with 3 tricycle wheels each.

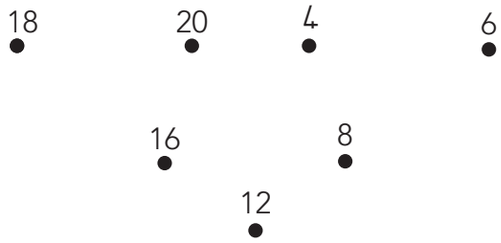
I can build 6 tricycles.

Enrichment Activity 2.25

If you could see the legs, how many legs would there be?

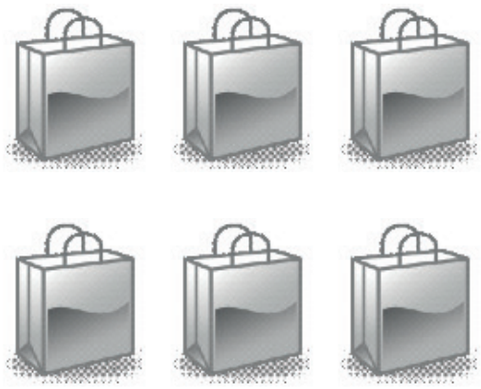
Enrichment Activity 2.26

- If there are five cars in the parking lot, how many wheels will there be?
- If there are seven lions in the park, how many legs will they have altogether?



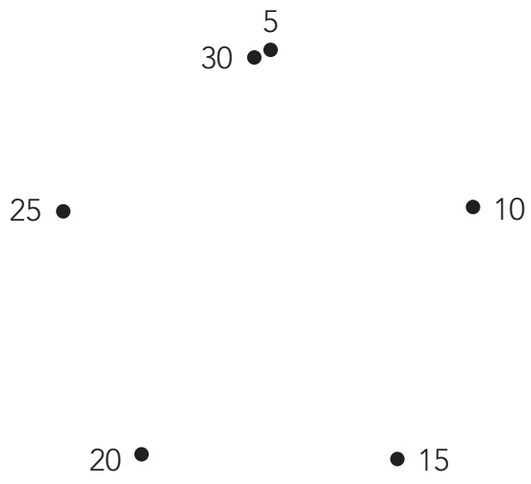
Enrichment Activity 2.27

There are five sweets in each bag. How many sweets are there altogether?



Enrichment Activity 2.28

What shape do you form if you join the dots?



Enrichment Activity 2.25: Answers

Let us count: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40.

There are 40 legs altogether.

Enrichment Activity 2.26: Answers

4 + 4 + 4 + 4 + 4 = 20

Let us count: 4, 8, 12, 16, 20.

There are 20 wheels.

4 + 4 + 4 + 4 + 4 + 4 + 4 = 28

Let us count: 4, 8, 12, 16, 20, 24, 28.

There are 28 legs.

Enrichment Activity 2.27: Answers

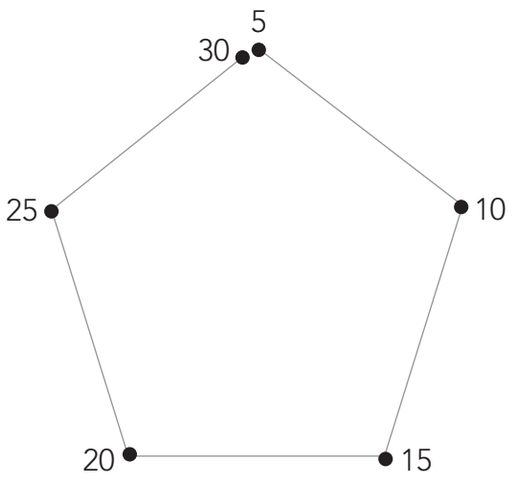
5 + 5 + 5 + 5 + 5 + 5 = 30

Let us count: 5, 10, 15, 20, 25, 30.

There are 30 sweets altogether.

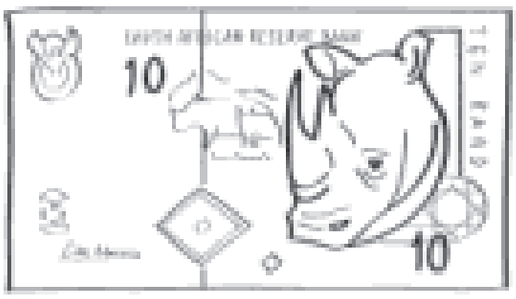
Enrichment Activity 2.28: Answers

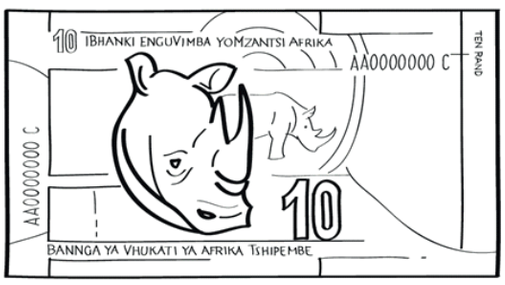
Pentagon



Enrichment Activity 2.29

Compare the old and new R10 note.





Did you find more differences or similarities?

Enrichment Activity 2.30

This is your shop. Make up your own story about it. Share it with the class.

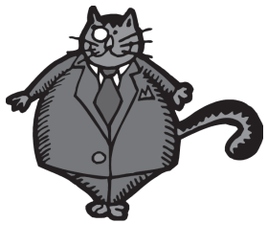
Enrichment Activity 2.31

How many different ways can you make 20c?

Draw it.

Enrichment Activity 2.32

Look at the pictures and write your own word problem.



Enrichment Activity 2.29: Answers

Both have a rhino on them – one of the Big Five.

On the old R10 the rhino looks to the left and on the new to the right.

There are two number tens on the old R10 note and only one on the new note.

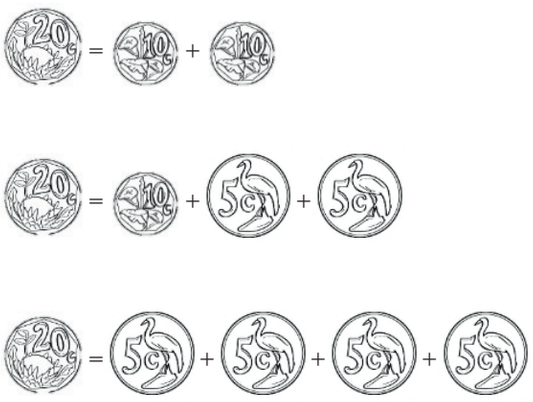
Enrichment Activity 2.30: Answers

Your own story.

Did you use words such as?

- Buy
- Sell
- Money
- Rands
- Cents
- 4 glasses
- 1 glass

Enrichment Activity 2.31: Answers

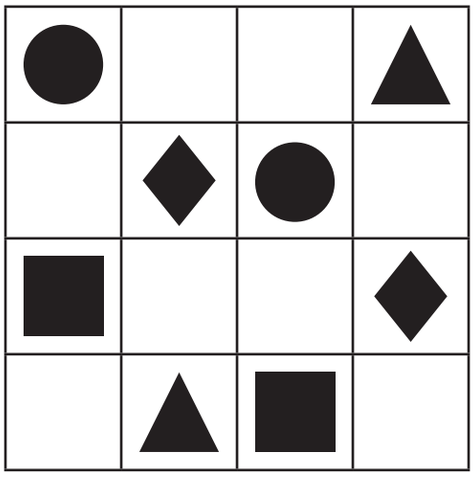


Enrichment Activity 2.32: Answers

There were 7 mice. The cat caught 4 mice. How many mice are left?

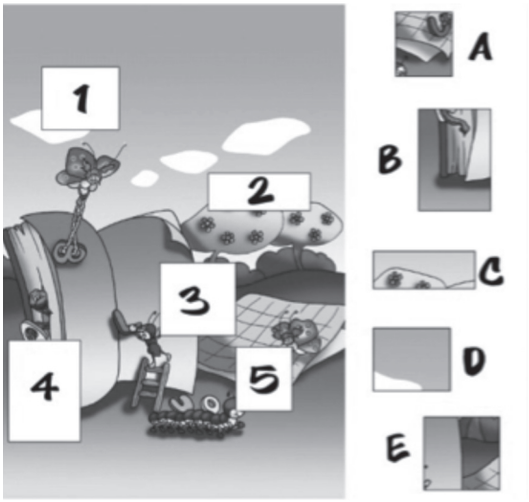
Enrichment Activity 2.33

Fill in the missing Sudoku shapes.



Enrichment Activity 2.34

Match the missing pieces to complete the picture.



Enrichment Activity 2.35

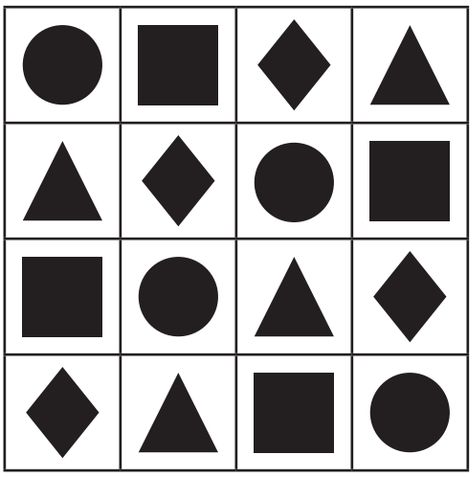
How many fingers do these children have in total?

Enrichment Activity 2.36

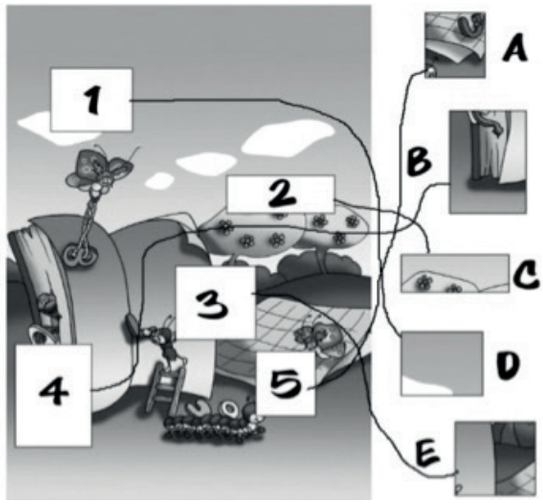
What numbers are hidden under the circles?

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

Enrichment Activity 2.33: Answers



Enrichment Activity 2.34: Answers



Enrichment Activity 2.35: Answers

There are 9 children.

Each child has 10 fingers.

You can count:

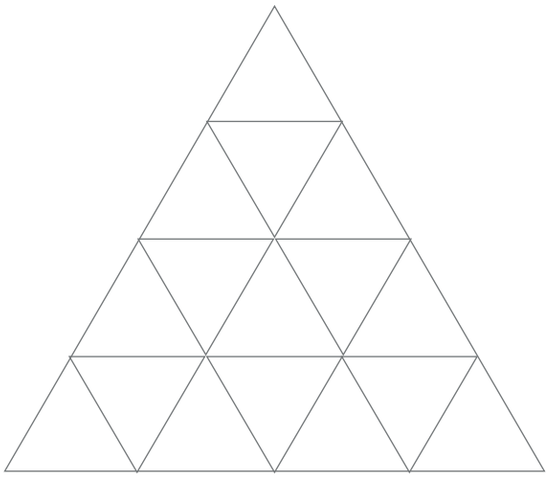
10, 20, 30, 40, 50, 60, 70, 80, 90.

Enrichment Activity 2.36: Answers

Counting in tens: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.

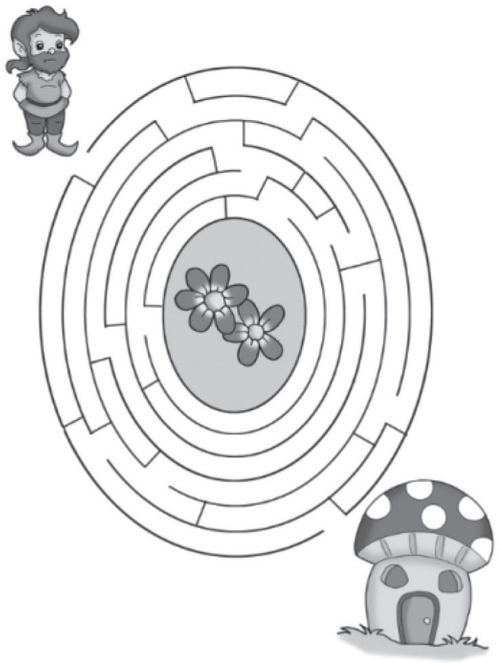
Enrichment Activity 2.37

How many triangles do you see?



Enrichment Activity 2.38

Help the dwarf to get to his house.



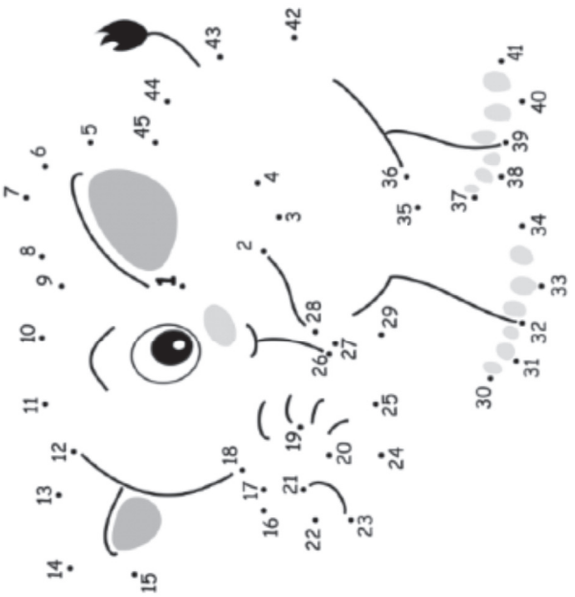
Enrichment Activity 2.39

Redraw and complete the Suduko puzzle.

			2
	1		4
3		4	
1			

Enrichment Activity 2.40

Count in ones. What animal is it?



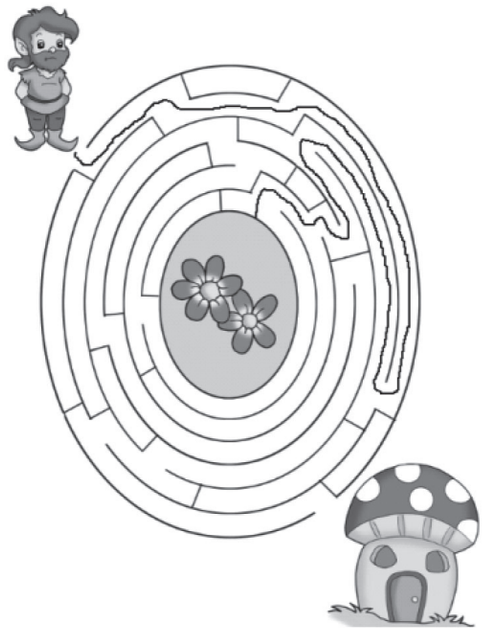
Enrichment Activity 2.37: Answers

There are 16 small triangles.

But you can even have more when you combine some triangles.

See how many more you can find.

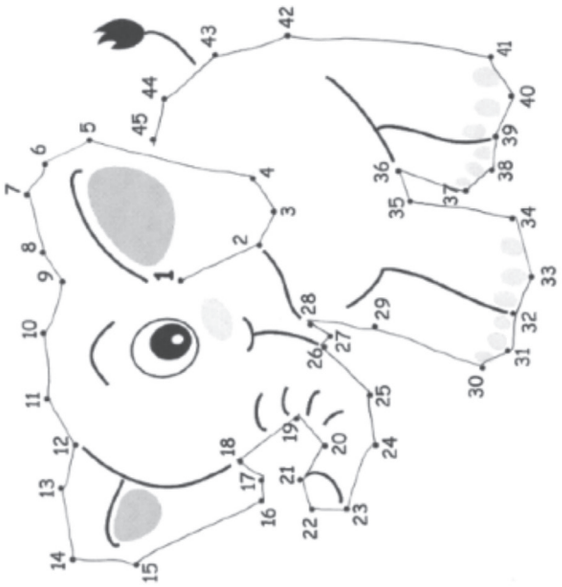
Enrichment Activity 2.38: Answers



Enrichment Activity 2.39: Answers

4	3	1	2
2	1	3	4
3	2	4	1
1	4	2	3

Enrichment Activity 2.40: Answers



Enrichment Activity Cards: isiXhosa Version

Each term a set of new enrichment cards will be provided. You should retain this set, as they will not be reproduced each term.

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 looks for cards can easily find the one they want to use.

Umsebenzi Wophuculo 2.1

Zingaphi izi-5 onokuzifumana?

1	5	5		3	4
	3			3	4
3	2	5	1		1
	1	2	5	5	4
3	5	4	1	3	4
4	2	1	5	2	1
5	5	2	5	4	2
3	1		1	4	4
4		2			2

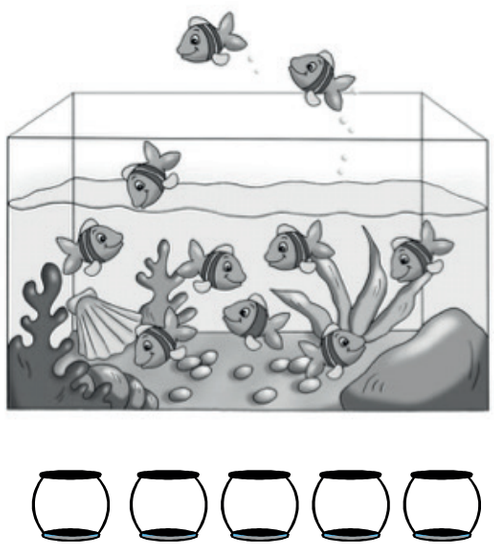
Umsebenzi Wophuculo 2.2

Zingaphi iibhloko ezineempendulo ezisisi-5 ozifumanayo?

1 + 2	3 + 1	1 + 3	
	2 + 2		
4 + 0	4 + 1	2 + 0	2 + 3
	2 + 1 + 1	1 + 1	1 + 1 + 1
3 + 1 + 1	2 + 1	3 + 2	2 + 2 + 1
0 + 5	1 + 4	2 + 0 + 3	1 + 2
1 + 0 + 1	0 + 2	0 + 4	5 + 0

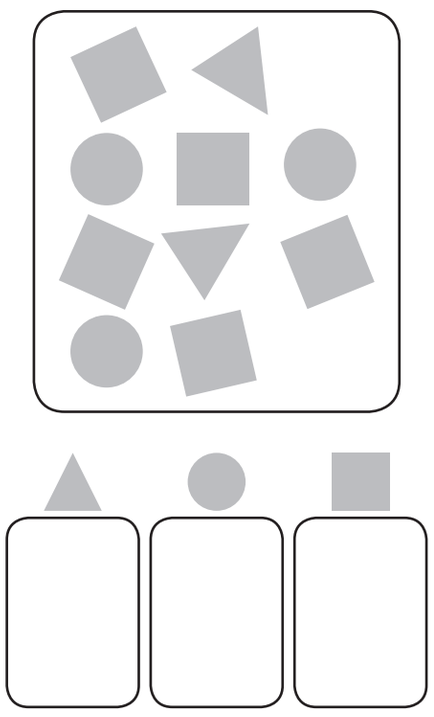
Umsebenzi Wophuculo 2.3

Yahlula iintlanzi ezityeni ngokulinganayo.



Umsebenzi Wophuculo 2.4

Hlela iimilo kwiibhokisi ezingezantsi.



Umsebenzi Wophuculo 2.1: Iimpendulo

Ali-10 amanani azizi -5.

Umsebenzi Wophuculo 2.2: Iimpendulo

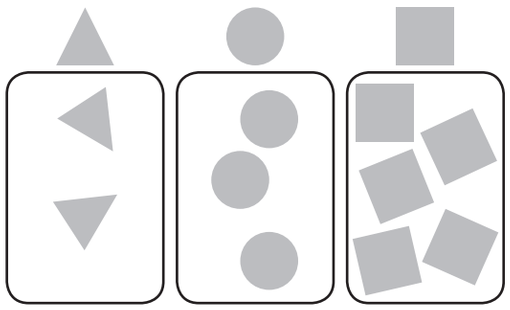
Zili-9 iibhloko ezineempendulo ezisisi-5.

1 + 2	3 + 1	1 + 3	
	2 + 2		
4 + 0	4 + 1	2 + 0	2 + 3
	2 + 1 + 1	1 + 1	1 + 1 + 1
3 + 1 + 1	2 + 1	3 + 2	2 + 2 + 1
0 + 5	1 + 4	2 + 0 + 3	1 + 2
1 + 0 + 1	0 + 2	0 + 4	5 + 0

Umsebenzi Wophuculo 2.3: Iimpendulo

Iintlanzi ezimbini kwisitya ngasinye.

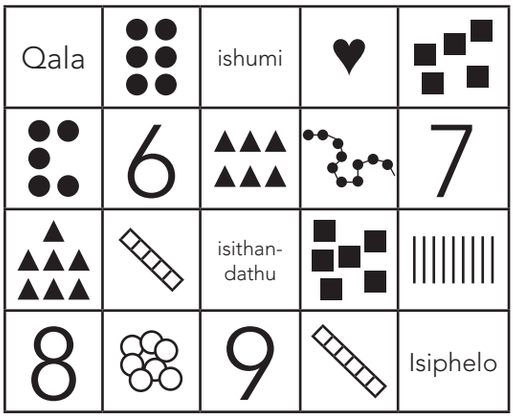
Umsebenzi Wophuculo 2.4: Iimpendulo



Qaphela ukuba oonxantathu nezikwere zimi ngokwahlukileyo.

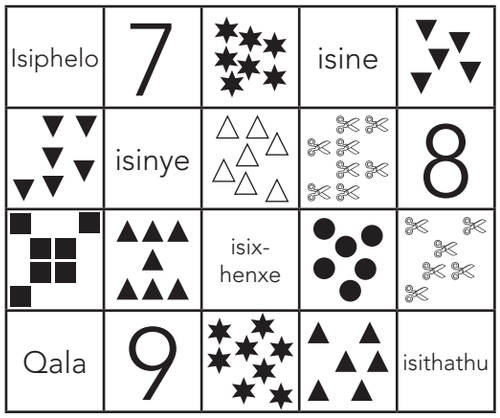
Umsebenzi Wophuculo 2.5

Khangela indlela esuka ekuqaleni ukuya esiphelweni ngokubeka amatye amancinci kwisi-6.



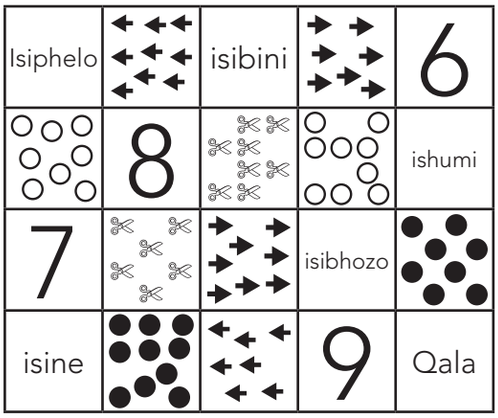
Umsebenzi Wophuculo 2.6

Khangela indlela esuka ekuqaleni ukuya esiphelweni ngokubeka amatye amancinci kwisi-7.



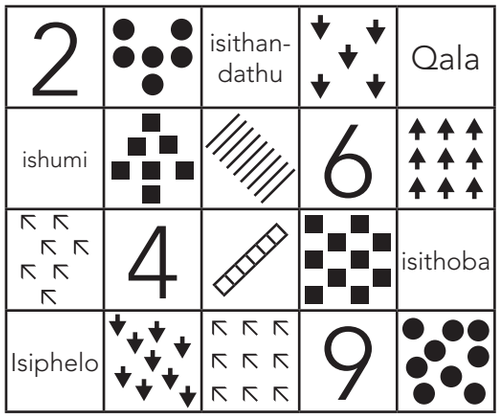
Umsebenzi Wophuculo 2.7

Khangela indlela esuka ekuqaleni ukuya esiphelweni ngokubeka amatye amancinci kwisi-8.

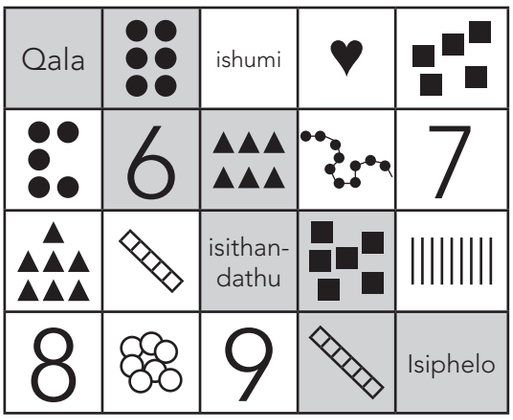


Umsebenzi Wophuculo 2.8

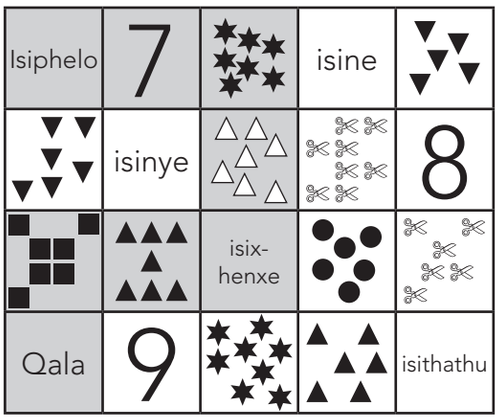
Khangela indlela esuka ekuqaleni ukuya esiphelweni ngokubeka amatye amancinci kwisi-9.



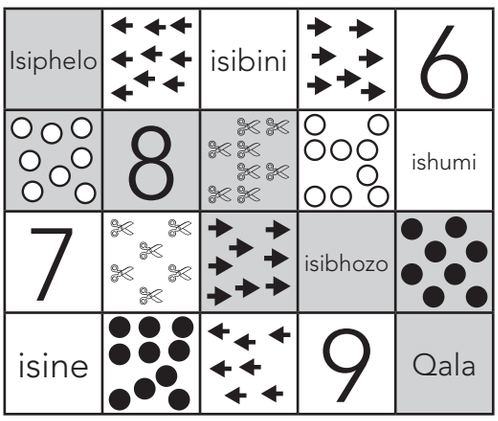
Umsebenzi Wophuculo 2.5: Iimpendulo



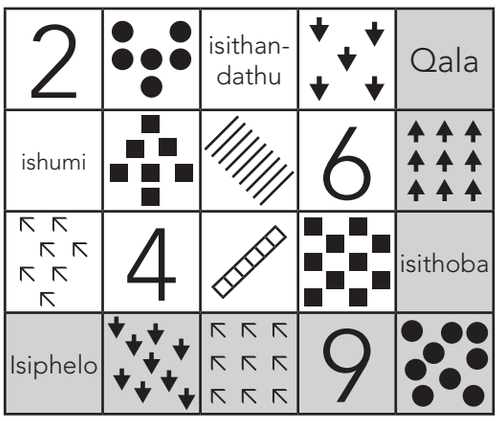
Umsebenzi Wophuculo 2.6: Iimpendulo



Umsebenzi Wophuculo 2.7: Iimpendulo



Umsebenzi Wophuculo 2.8: Iimpendulo



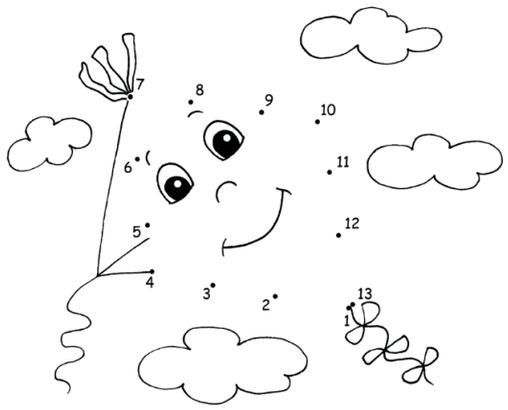
Umsebenzi Wophuculo 2.9

Khangela indlela esuka ekuqaleni ukuya esiphelweni ngokubeka amatye amancinci kwi-10.

isithoba	7			Isiphelo
8		isithan-dathu		
	ishumi			10
Qala		isix-henxe	9	

Umsebenzi Wophuculo 2.10

Gqibezela umfanekiso ngokulandelelanisa amanani.



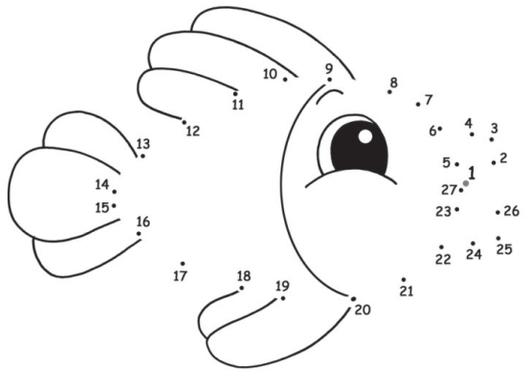
Umsebenzi Wophuculo 2.11

Gcwalisa ibhodi yeSudoku ngokuthi usebenzise amanani aqala kwisi-1 ukuya kwisi-4.

			2
	1		4
3		4	
1			

Umsebenzi Wophuculo 2.12

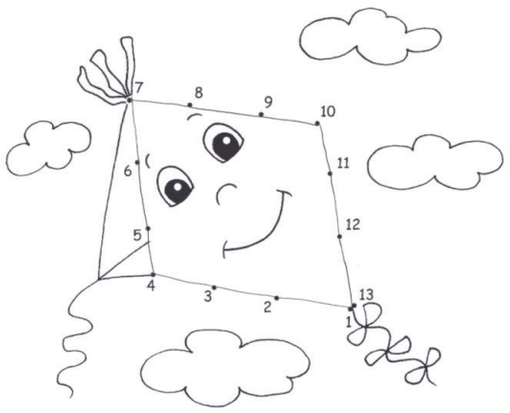
Gqibezela umfanekiso ngokulandelelanisa amanani.



Umsebenzi Wophuculo 2.9: Iimpendulo

isithoba	7			Isiphelo
8		isithan-dathu		
	ishumi			10
Qala		isix-henxe	9	

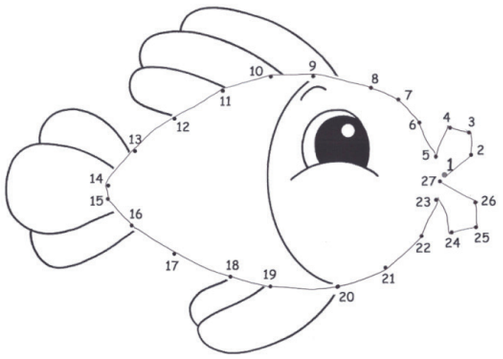
Umsebenzi Wophuculo 2.10: Iimpendulo



Umsebenzi Wophuculo 2.11: Iimpendulo

4	3	1	2
2	1	3	4
3	2	4	1
1	4	2	3

Umsebenzi Wophuculo 2.12: Iimpendulo



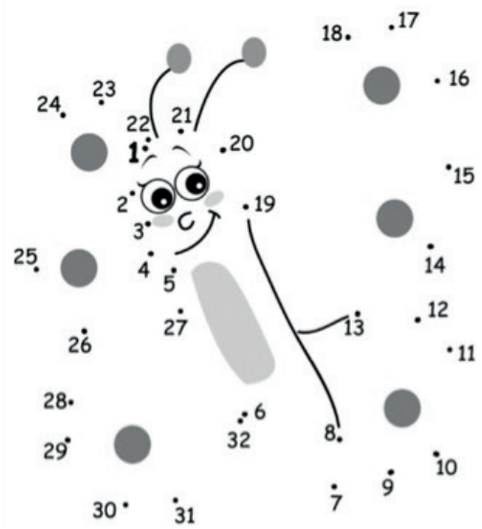
Umsebenzi Wophuculo 2.13

Gcwalisa ibhodi yeSudoku ngokuthi usebenzise amanani aqala kwisi-1 ukuya kwisi-4.

	3		
	1	2	
	4	1	
		3	

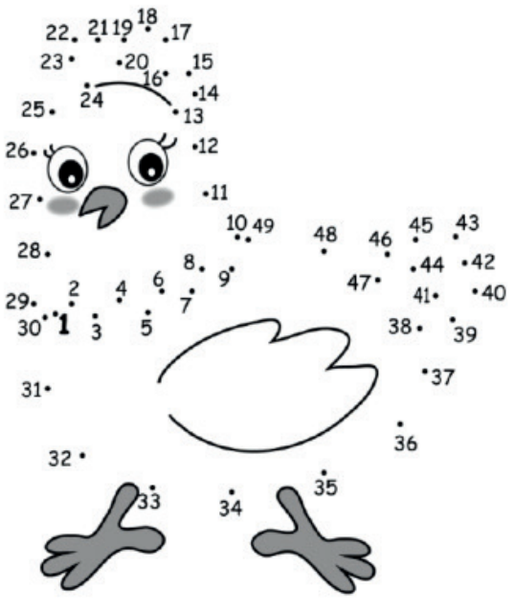
Umsebenzi Wophuculo 2.14

Gqibezela umfanekiso ngokuthi ulandelelanise amanani.



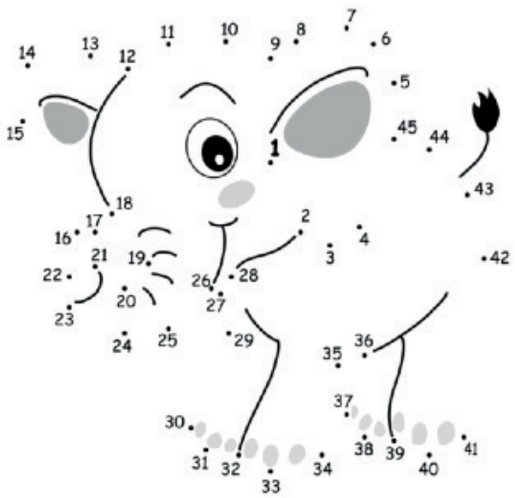
Umsebenzi Wophuculo 2.15

Gqibezela umfanekiso ngokuthi ulandelelanise amanani.

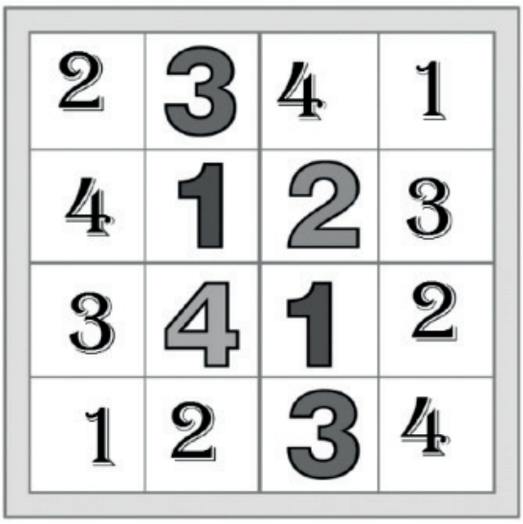


Umsebenzi Wophuculo 2.16

Gqibezela umfanekiso ngokuthi ulandelelanise amanani.

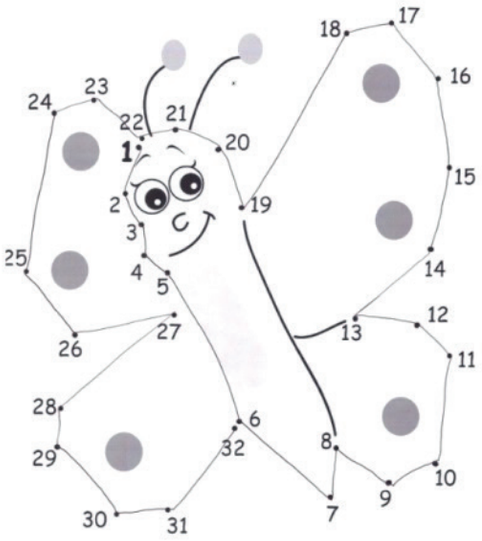


Umsebenzi Wophuculo 2.13: Iimpendulo

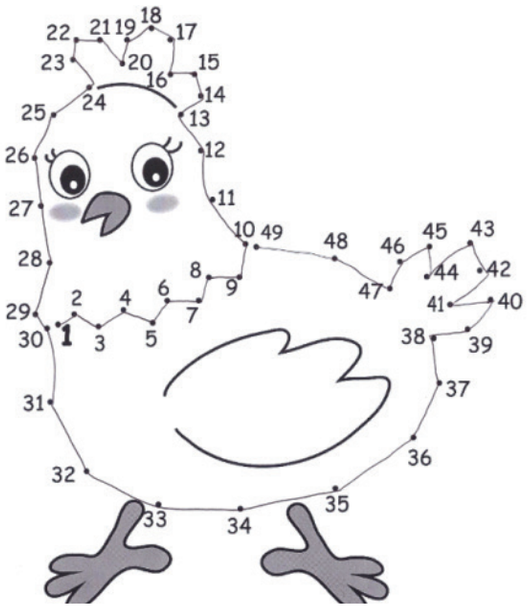


2	3	4	1
4	1	2	3
3	4	1	2
1	2	3	4

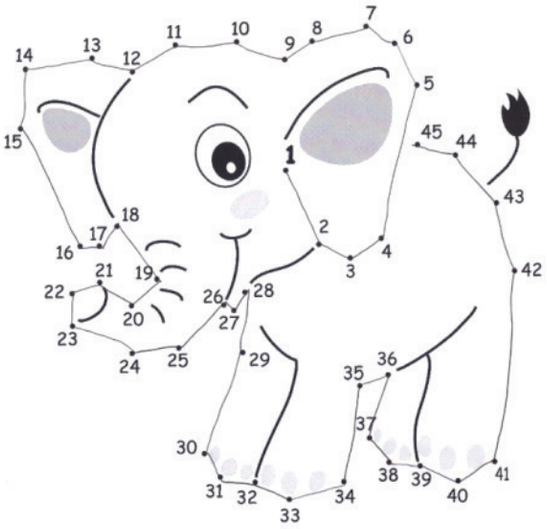
Umsebenzi Wophuculo 2.14: Iimpendulo



Umsebenzi Wophuculo 2.15: Iimpendulo

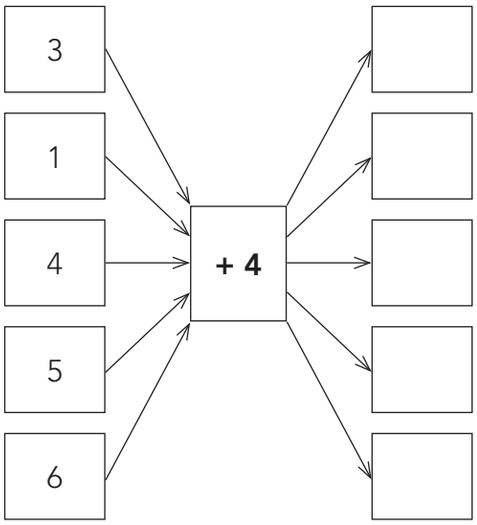


Umsebenzi Wophuculo 2.16: Iimpendulo



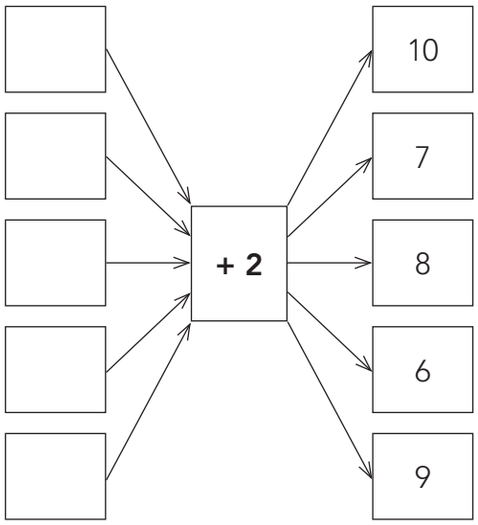
Umsebenzi Wophuculo 2.17

Gqibezela umzobo wesigcawu.



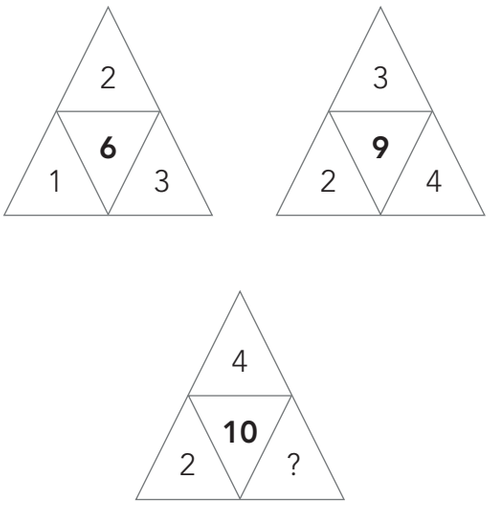
Umsebenzi Wophuculo 2.18

Gqibezela umzobo wesigcawu.



Umsebenzi Wophuculo 2.19

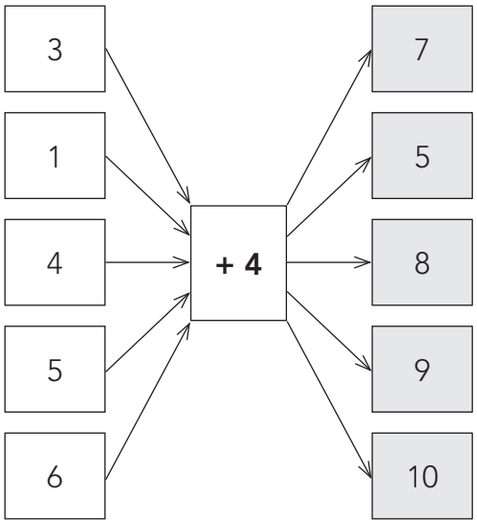
Jonga oonxantathu abaphezulu ababini, uze ufumane inani elizakungena endaweni yophawu lombuzo kunxantathu ongezantsi.



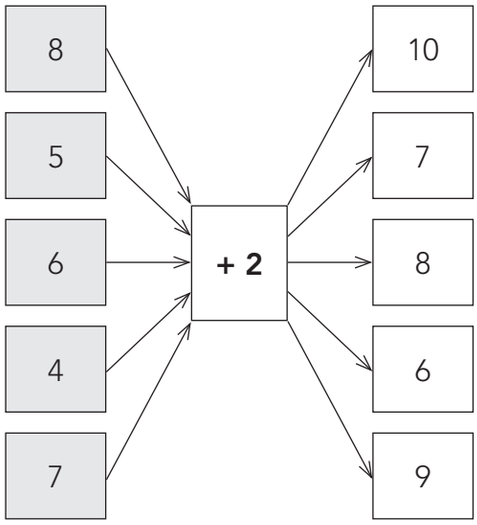
Umsebenzi Wophuculo 2.20

Ndithenge iilekese ezi-4. Udadewethu uthenge iilekese ezintathu waze umzala wam wathenga iilekese ezintlanu. Zingaphi iilekese ezithengwe ndim nomzala wam zizonke?

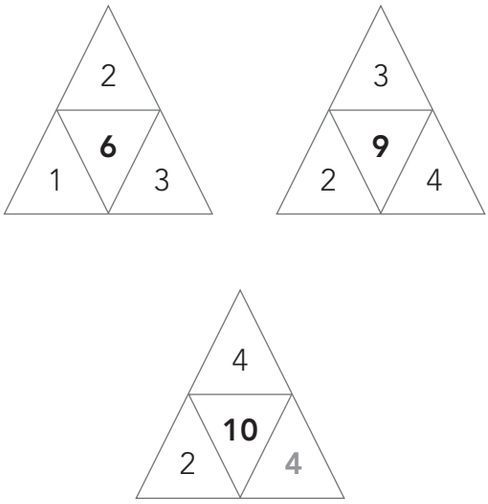
Umsebenzi Wophuculo 2.17: Iimpendulo



Umsebenzi Wophuculo 2.18: Iimpendulo



Umsebenzi Wophuculo 2.19: Iimpendulo



Umsebenzi Wophuculo 2.20: Iimpendulo

Qaphela ukuba umbuzo uthi:"Zingaphi iilekese ezithengwe ngumzala wam (hayi udade wethu) nam zidibene?"

4 + 5 = 9

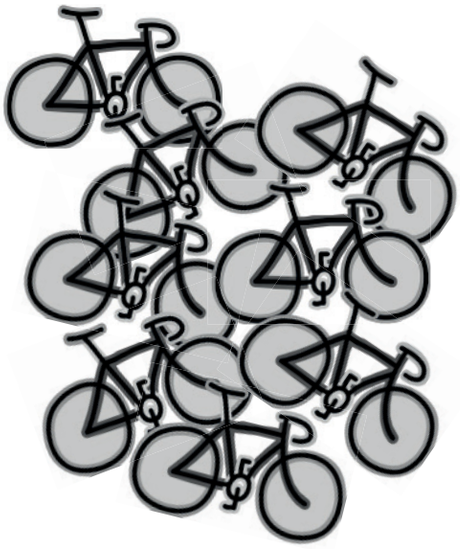
Mna nomzala wam sithenge iilekese ezisi-9 zizonke.

Umsebenzi Wophuculo 2.21

Zingaphi iipere zezihlangu onokuzenza?

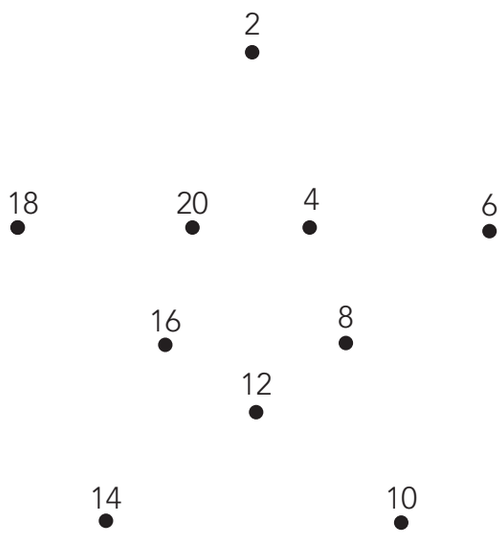
Umsebenzi Wophuculo 2.22

Mangaphi amavili eebhayisekile aphaya?



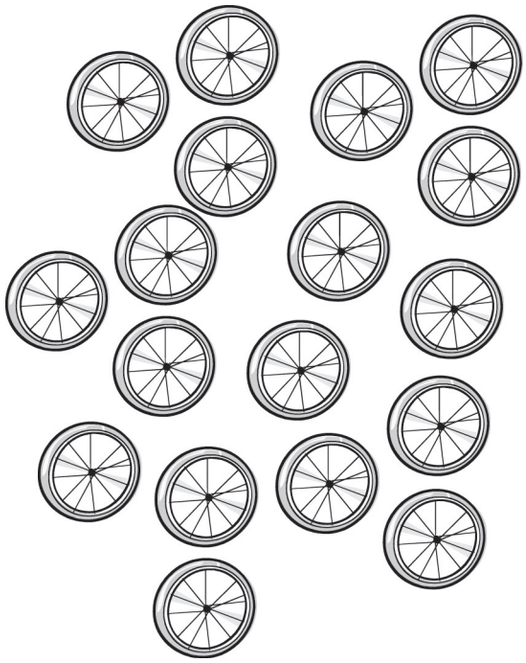
Umsebenzi Wophuculo 2.23

Bala ngezibini. Ngeyiphi imilo ephumayo?



Umsebenzi Wophuculo 2.24

Zingaphi iitrayisekile onokuzakha?



Umsebenzi Wophuculo 2.21: Iimpendulo

Kukho izihlangu ezili-16.

Ukuba ndizibeka kumaqela ezi-2, Ndizakufumana amaqela asi-8.

Kukho iipere ezisi-8 zezihlangu.

Umsebenzi Wophuculo 2.22: Iimpendulo

Kukho iibhayisekile ezisi-8.

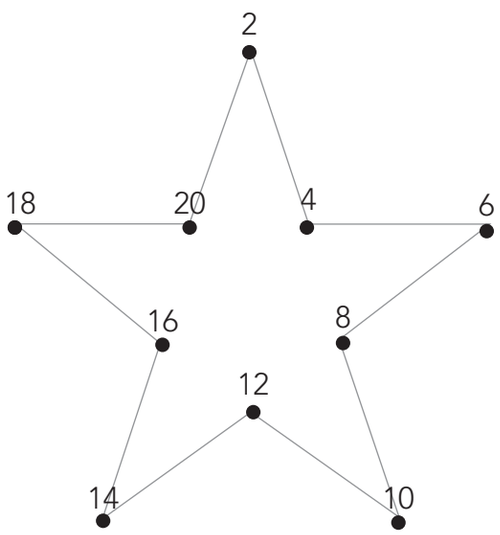
Ibhayisekile nganye inamavili ama-2.

Ndingabala: 2, 4, 6, 8, 10,12.

Kukho amavili ali-16 eebhayisekile.

Umsebenzi Wophuculo 2.23: Iimpendulo

Inkwenkwezi



Umsebenzi Wophuculo 2.24: Iimpendulo

Kukho amavili ali-18 eetrayisekile.

Ukuba ndiwabeka kumaqela anezinto ezi-3, ndingenza amaqela ama-6 ngamavili ama-3 etrayisekile nganye.

Ndingakha iitrayisekile ezi-6.

Umsebenzi Wophuculo 2.25

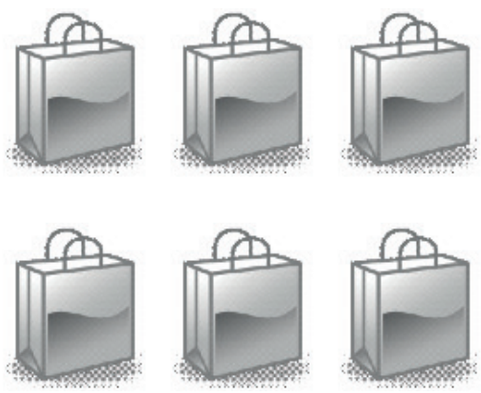
Ukuba ubunokubona imilenze, ingayimilenze emingaphi?

Umsebenzi Wophuculo 2.26

- Ukuba kukho iimoto ezintlanu kwindawo yokupaka, zinganamavili amangaphi?
- Ukuba kukho iingonyama ezisixhenxe epakini, zinganemilenze emingaphi iyonke?

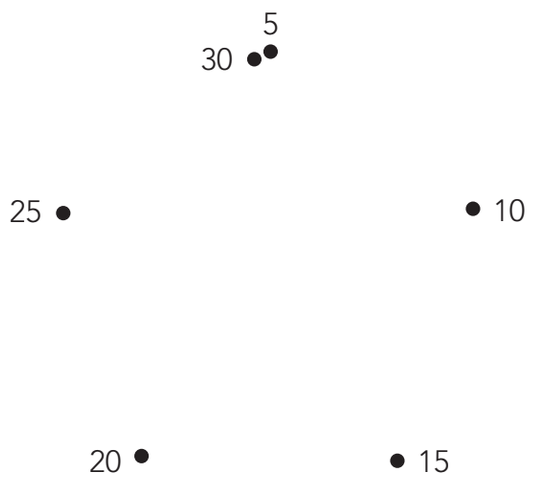
Umsebenzi Wophuculo 2.27

Kukho iilekese ezintlanu kwibhegi nganye. Zingaphi iilekese ezikhoyo xa zizonke?



Umsebenzi Wophuculo 2.28

Ufumana imilo enjani xa udibanise amachaphaza?



Umsebenzi Wophuculo 2.25: Iimpendulo

Masibale: 4, 8, 12, 16, 20, 24, 28, 32, 36, 40.

Kukho imilenze engama -40 iyonke.

Umsebenzi Wophuculo 2.26: Iimpendulo

4 + 4 + 4 + 4 + 4 = 20

Masibale: 4, 8, 12, 16, 20.

Kukho amavili angama -20.

4 + 4 + 4 + 4 + 4 + 4 + 4 = 28

Masibale: 4, 8, 12, 16, 20, 24, 28.

Kukho imilenze engama -28.

Umsebenzi Wophuculo 2.27: Iimpendulo

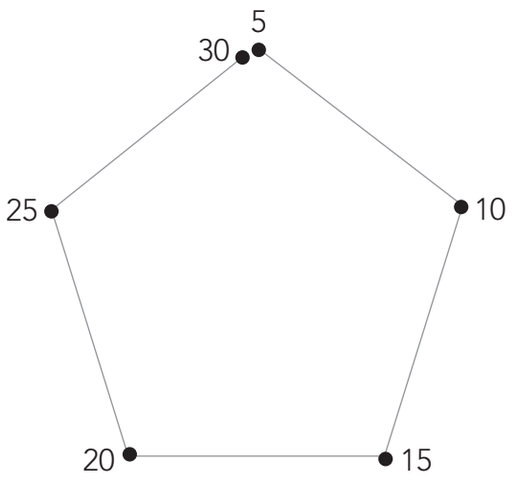
5 + 5 + 5 + 5 + 5 + 5 = 30

Masibale: 5, 10, 15, 20, 25, 30.

Kukho iilekese ezingama -30 zizonke.

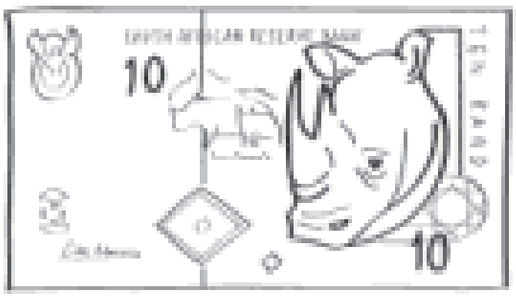
Umsebenzi Wophuculo 2.28: Iimpendulo

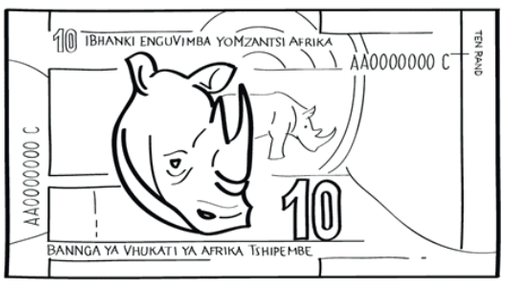
Ipentagoni



Umsebenzi Wophuculo 2.29

Thelekisa imali eliphepha endala nentsha ezii-R10.





Uwutholile umahluko noma ukufana kule mali?

Umsebenzi Wophuculo 2.30

Yivenkile yakho le. Yila elakho ibali ngayo. Ubalisele iklasi.

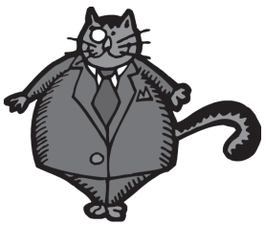
Umsebenzi Wophuculo 2.31

Zingaphi iindlela ezahlukeneyo ongenza ngayo ama-20c?

Zizobe.

Umsebenzi Wophuculo 2.32

Jonga imifanekiso ze ubhale esakho isibalo sesivakalisi.



Umsebenzi Wophuculo 2.29: Iimpendulo

- Zinomkhombe zombini - esinye isilwanyana seBig Five.
- Kwelidala i-R10 umkhombe ujonge ngasekhohlo uze ujonge ngasekunene kwelitsha.
- Kukho amanani amabini angamashumi kwelidala i-R10 ze libe linye kwelitsha i-R10.

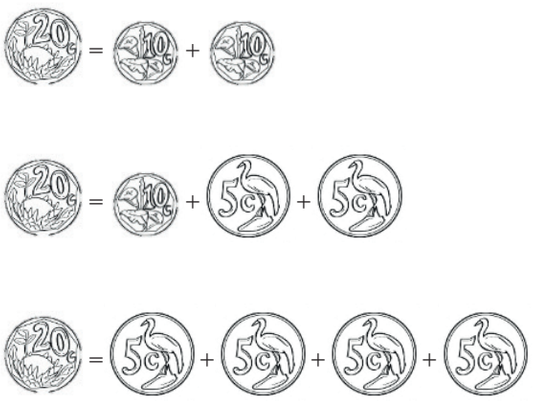
Umsebenzi Wophuculo 2.30: Iimpendulo

Elakho ibali.

Uwasebenzisile la magama?

- Ukuthenga
- Ukuthengisa
- Imali
- Iirandi
- Iisenti
- Iiglasi ezi-4
- Iglasi e-1

Umsebenzi Wophuculo 2.31: Iimpendulo



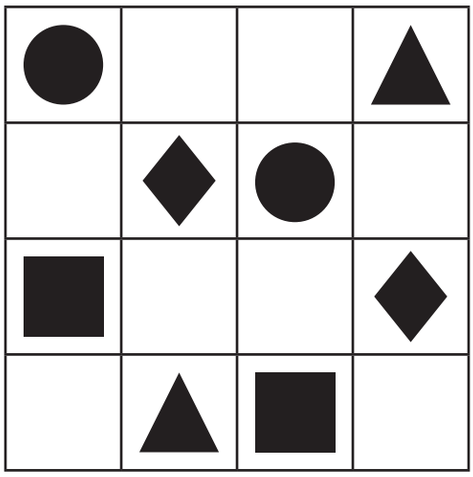
Umsebenzi Wophuculo 2.32: Iimpendulo

Kukho iimpuku ezisi-7. Ikati ibambe iimpuku ezi- 4.

Zingaphi iimpuku ezishiyekileyo?

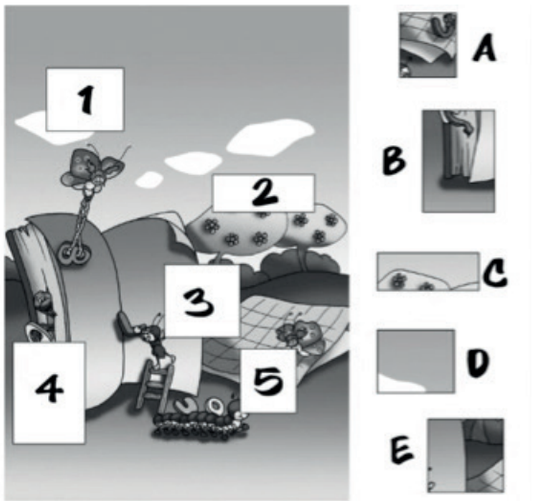
Umsebenzi Wophuculo 2.33

Faka iimilo ezishiyiweyo seSudoku.



Umsebenzi Wophuculo 2.34

Tshatisa amaqhekeza ashiyekileyo ukugcwalisa umfanekiso.



Umsebenzi Wophuculo 2.35

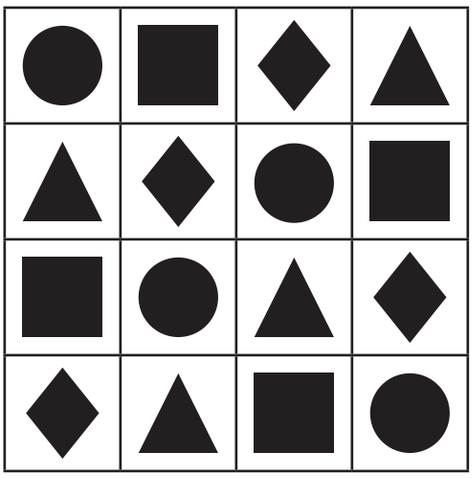
Mingaphi iminwe yaba bantwana iyonke?

Umsebenzi Wophuculo 2.36

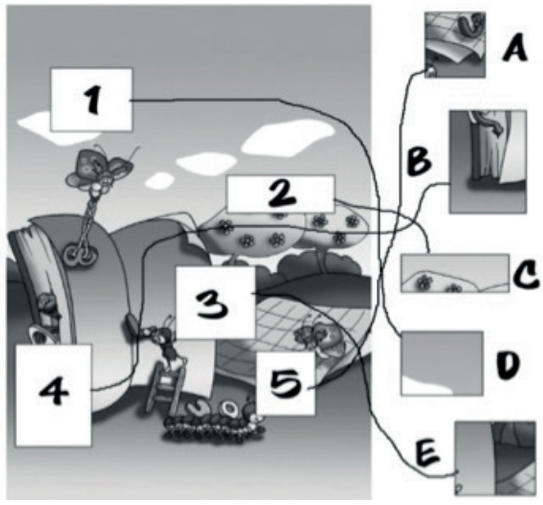
Ngawaphi amanani afihlwe ngaphantsi kwezangqa?

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

Umsebenzi Wophuculo 2.33: Iimpendulo



Umsebenzi Wophuculo 2.34: Iimpendulo



Umsebenzi Wophuculo 2.35: Iimpendulo

Kukho abantwana abali-9.

Umntwana ngamnye uneminwe eli-10.

Ungabala:

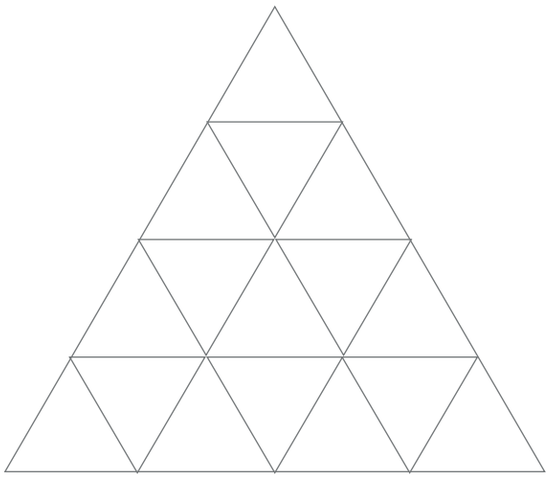
10, 20, 30, 40, 50, 60, 70, 80, 90.

Umsebenzi Wophuculo 2.36: Iimpendulo

Ukubala ngamashumi: 10, 20, 30, 40, 50, 60, 70, 80, 90, 100.

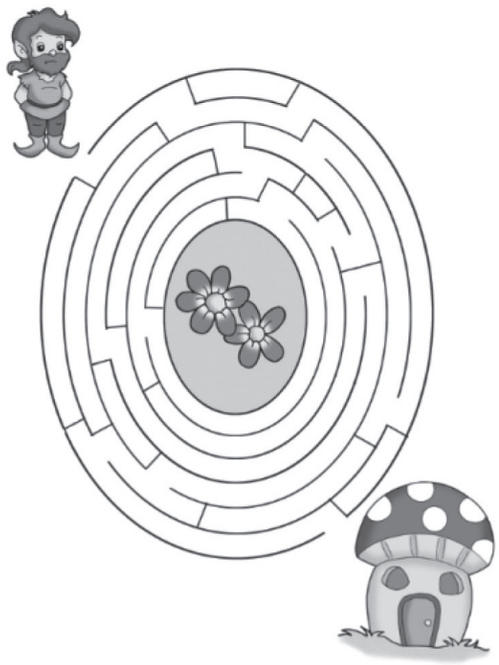
Umsebenzi Wophuculo 2.37

Bangaphi oonxantathu obabonayo?



Umsebenzi Wophuculo 2.38

Nceda uthikoloshe aye endlwini yakhe.



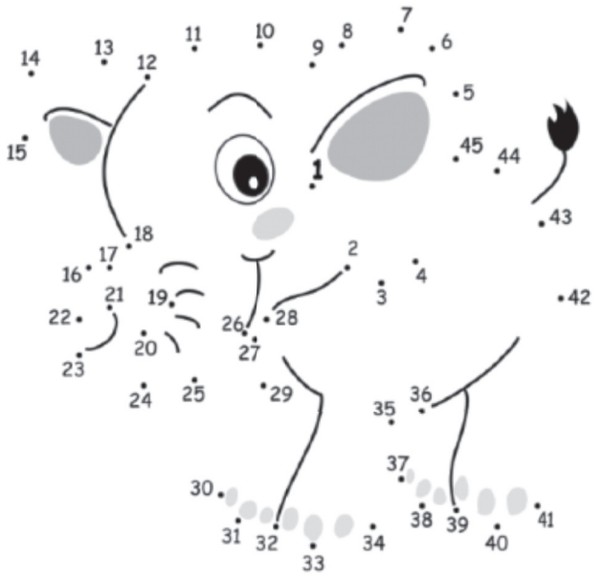
Umsebenzi Wophuculo 2.39

Zoba iphazili yeSudoku kwakhona uyigcwalise.

			2
	1		4
3		4	
1			

Umsebenzi Wophuculo 2.40

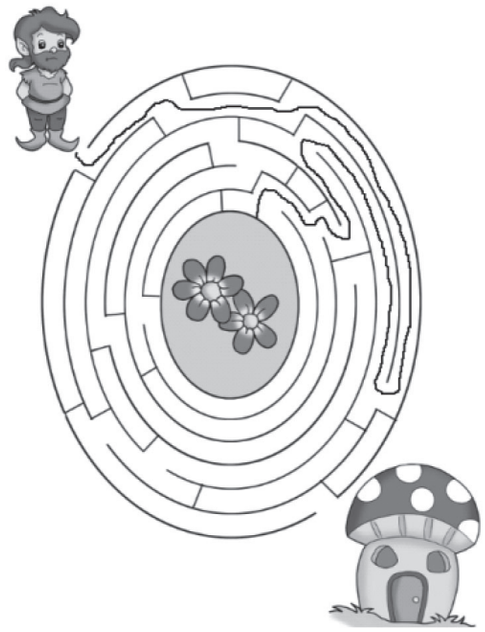
Bala ngoononye. Sesiphi isilwanyana osifumanayo:



Umsebenzi Wophuculo 2.37: Iimpendulo

Kukho oonxantathu abancinane abali-16. Kodwa ungafumana nangaphezulu xa un-okudibanisa abanye oonxantathu. Khangela ukuba ungafumana abangaphi na?

Umsebenzi Wophuculo 2.38: Iimpendulo



Umsebenzi Wophuculo 2.39: Iimpendulo

4	3	1	2
2	1	3	4
3	2	4	1
1	4	2	3

Umsebenzi Wophuculo 2.40: Iimpendulo