Grade R Mathematics Improvement Programme

Activity Guide: Term 1



The Grade R Mathematics and Language Improvement Project is an initiative of the **Gauteng Department of Education** and its key partner, the **Gauteng Education Development Trust**.

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The Grade R Mathematics and Language Improvement Project is managed by **JET Education Services** with **UCT's Schools Development Unit** and **Wordworks** as technical partners.

The **Schools Development Unit** (SDU) at the **University of Cape Town** (UCT) is the mathematics technical partner to the Grade R Mathematics and Language Improvement Project. The SDU is a unit within UCT's School of Education that focuses on teachers' professional development in Mathematics, Science, Literacy/Language and Life Skills from Grade R to Grade 12. The SDU offers teacher qualifications and approved UCT short courses, school-based work, materials development and research to support teaching and learning in all South African contexts.

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Introduction

The Grade R Mathematics Improvement Programme (Grade R Maths) is based on a good knowledge of mathematics, an understanding of the progression in the Grade R curriculum, and a realisation that some teaching approaches are better suited to promote particular learning and outcomes.

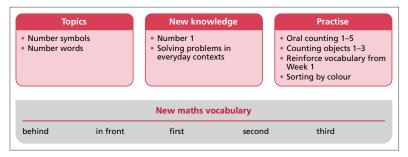
The Grade R Maths *Activity Guide: Term 1* offers a structure for teaching maths in the first term of Grade R by:

- sequencing the content of each Mathematics Content Area across ten weeks
- providing progression and pacing within the five Content Areas
- focusing on one main Content Area per week (However, topics from other Content Areas may be introduced and practised during that week. Number-related learning and teaching takes place every day and is integrated into all the Content Areas.)
- suggesting activities for whole class, teacher-guided and independent group work.

Features of Activity Guide: Term 1

The following features form part of Activity Guide: Term 1:

- A content overview shows the new knowledge and practice focus per week.
- Term, week and Content Area Focus are clearly stated at the beginning of each week.
- Topics, New knowledge and Practise boxes show what will be covered in the week.
- New maths vocabulary to be taught is listed per week.



- A list is given of what you need to prepare for each week.
- Tip boxes give ideas and reminders.
- Integration boxes suggest how the maths can be reinforced in other subjects and daily activities during the Grade R daily programme.
- 'Check that learners are able to' boxes guide observation and continuous assessment.
- A continuous assessment page is based on the term's activities.
- Resources and templates are included at the back of the guide.

Grade R Maths in the daily programme

Routine is important and learners enjoy the repetition and feel secure when they know what to do and what is expected of them.

Planning is also important to ensure that the routine runs smoothly. Read the contents for the week and prepare all the materials you will need for each day in advance. Set out the materials for the day beforehand so that everything is ready in the morning.

Grade R Maths suggests a sequence of activities that are repeated daily over a five-day week. Classroom organisation and activities that can be used to teach and reinforce maths concepts are suggested per week. These include:

Whole class activities per day

- Rhyme or song
- Oral counting
- Counting concrete objects
- Activities and questions linked to Content Area topics

At the end of the whole class activity, show the learners what they will be required to do at their workstations. All the materials they need should be set out so that they can begin working on the activities.



Transitions: moving between activities

Moving between the mat and the workstations is a great time to practise rhythmic counting and fun, creative ways to move, for example, slowly like tortoises, hopping like rabbits, quietly like mice, one by one with their name/picture symbol cards.

Small group activities

- There is one teacher-guided activity per day.
- There are four small group activities per day. These four independent activities (or side activities) should be set out at four **workstations** around the classroom either at tables where the learners are seated or stand, or on the mat, or outside. The groups rotate to each **workstation** over the course of a week, depending on how the teacher has planned the activities. Remind learners to take turns, share materials and help each other while working.

Tidy-up time

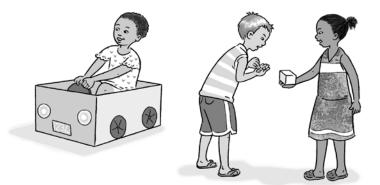
Learners need to know where materials belong. A shelf or table that is dedicated to maths equipment will help learners to be organised. Encourage learners to help each other during tidy-up time. Initially learners will need assistance and you will have to remind them where to put things, but they will soon get into the routine of putting things where they belong.

Choose group leaders and tidy-helpers each week. Give them specific tasks and responsibilities.

Free choice activities

Set out creative, interesting activities that learners can choose from once they have completed their workstation activity. These could include:

- blocks or other construction toys
- puzzles
- playdough
- books in the reading corner
- fantasy play, for example, shopping
- workbook or worksheet pages.



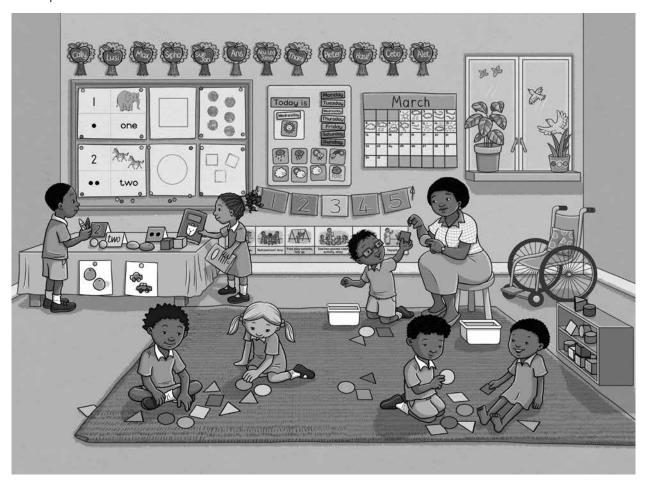
Assessment

Observation and continuous assessment during teacher-guided and whole class activities provides opportunities for insights into and a good overview of each learner's progress. This information is important for guiding further teaching and interventions for individual learners. The continuous assessment checklist on pages 96–97 of this guide is based on the content that has been taught in Term 1. This template can be used to record each learner's progress during the term.

Grade R Maths in the classroom

Set up an area in the classroom that is dedicated to maths and is near the mat. This is a shared space where learners can contribute to and engage with the topic they are learning about. An ideal maths area will include:

- small table against a wall
- number line made with string and pegs
- daily weather chart
- calendar for each month with blocks for each day
- chart with the names of the days of the week
- daily programme with pictures for the different activities
- learners' name cards and symbols arranged according to their group names
- helpers' symbols to move between learners' names according to each day of the week
- helpers' chart.



Make a 'classroom rules' poster with the learners. Display it where they can easily see it. There should be no more than six or seven rules.

Our classroom rules

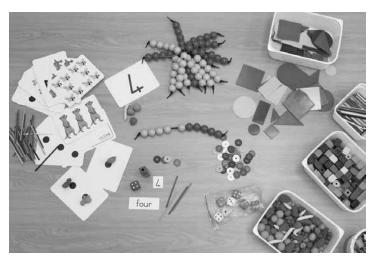


Resources for Grade R Maths

Grade R Maths Resource Kit

Grade R Maths provides a kit for learning and teaching maths that provides apparatus for a small group of six to eight learners to use. The kit includes the following items:

- counting materials, for example, coloured discs and sticks, fruit and animal counters, Unifix blocks
- jumbo dice
- strings of ten structure beads
- dot cards
- number cards: number symbols (0–10) and number words (zero–ten)
- attribute blocks.



These should not be the only resources that teachers and learners use during maths activities. Everyday objects from home are ideal for sorting, counting and exploring shapes.

Recycled materials

Store recycled materials in labelled containers with lids (such as: fruit and vegetable packaging, 2-litre ice-cream containers and 500-ml feta tubs). Place the containers on a shelf or somewhere that the learners can reach. Encourage learners to put the objects away during tidy-up time if they have used them at their workstations or during free choice activities. Here are some ideas for maths resources:

- bottle caps and lids (different shapes, sizes and colours)
- different-sized boxes (toothpaste, matchbox, cereal, medicine, packaging)
- plastic containers (500-ml and 1-litre bottles, margarine tubs, 250-ml and 500-ml yoghurt tubs, ice-cream containers, vegetable packaging)
- tubes and cylinders (cardboard toilet roll inners, paper towel inners, foil roll inners, tins)
- egg boxes
- buttons, old keys, plastic spoons, ice-cream sticks, bread packet tags
- variety of balls, beanbags, hula hoops.



Other resources

Other useful classroom resources for Grade R Maths teaching include:

- crayons, paint, glue, scissors
- playdough or modelling clay
- books that can be used for maths discussions
- building blocks and construction toys (collect wood offcuts if necessary)
- a variety of jigsaw puzzles and games, for example, dominoes, snakes and ladders, Ludo, Lotto

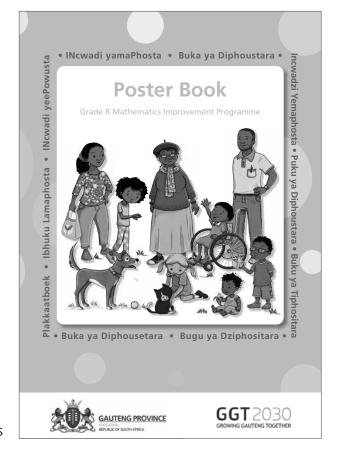
- height chart
- jumbo playing cards
- pretend money: coins and notes (to use in a play shop)
- large analogue wall clock
- balance scale
- beads for sorting, threading and patterning
- equipment for sand and water play
- apparatus for climbing, balancing, swinging and skipping.

The Grade R Maths Poster Book

There are eleven posters in the Grade R Maths *Poster Book*. The posters present familiar contexts that learners can relate to that capture some aspect of maths, for example, in the classroom, on the playground, and in the kitchen. The posters are intended to stimulate interest and discussion on maths topics, including: number, patterns, space and shape, sequencing of time and measurement. The posters can be used to engage learners in critical thinking and reasoning. They are perfect for developing problem-solving skills and for maths investigations.

Teachers can encourage learners to discuss the posters and share their thinking by asking questions to guide them in focusing on a particular aspect of the poster, for example:

- What do you see in the picture?
- Where do you think the children/people are?
- What is happening in the picture?
- Can you tell me a story about the picture?
- How many ... can you see? What if there was one more/fewer ...?
- Where is the ...?
- What would happen if ...?
- What do you think will happen next?
- What do you think ... can see from where they are standing?
- What pattern can you see? Describe the pattern.
- What shapes can you see?
- Which ... is the tallest/shortest?
- Can you use any maths words to describe something in the picture?



Content overview: Term I

NOTE: Content Area Focus and New knowledge are in red. Other content covered in the week is in grey.

Content Area Focus	Week 1	Week 2	Week 3	Week 4	Week 5
1. Numbers, Operations and Relationships	Oral counting 1–5 Counting objects 1–3 One-to-one correspondence	Number 1 Solving problems in everyday contexts Oral counting 1–5 Counting objects 1–3 Reinforce vocabulary from Week 1	Counting objects 1–5 Oral counting 1–5 Reinforce 1	Number 2 Oral counting 1–5 Number 1 Counting objects 1–5	Number concepts 1 and 2 Oral counting 1–5 Counting objects 1–5
2. Patterns, Functions and Algebra					
3. Space and Shape (Geometry)	Tidy-up chart Learners' symbols Helpers' chart Building a six- piece puzzle Modelling with playdough/clay Building with blocks		Properties of balls and boxes Objects that roll or slide Position: in and out Big and small Biggest and smallest	Circle Symmetry Six-piece puzzles	2-D shapes: square Direction: forwards and backwards Position: inside and outside Circle Boxes and balls Six-piece puzzles
4. Measurement	Sequencing daily events Birthday chart				
5. Data Handling	Sorting by colour Drawing	Sorting by colour	Sorting by size		

Content Area Focus	Week 6	Week 7	Week 8	Week 9	Week 10
1. Numbers, Operations and Relationships	Number 3 Sequencing numbers 1–3 Oral counting 1–5 Counting objects 1–5 Reinforce number concepts 1 and 2 Problem solving using objects	Oral counting 1–10 Counting objects 1–5 Reinforce number concepts 1–3 Sequencing numbers 1–3	Counting backwards 5–1 Oral counting 1–10 Sequencing numbers 1–3 Counting objects 1–5 Reinforce 1–3	Zero Estimation Problem solving Numbers in familiar contexts Counting forwards 1–10 Counting backwards 5–1 Counting objects 1–5 Sequencing numbers 1–3 Number concept 1–3	Oral counting 1–10 Counting objects 1–5 Sequencing numbers 1–3 Number concept 1–3 Problem solving
2. Patterns, Functions and Algebra	Identify patterns Copy patterns				Before and after Copy patterns
3. Space and Shape (Geometry)		2-D shapes: triangle Figure ground Position: in front of and behind Circle, square Symmetry Big, small Six-piece puzzles	Position: on, under, on top, below, next to, between	Direction: up and down Circle, square and triangle Six-piece puzzles	
4. Measurement			Sequencing time: day and night, light and dark Length: height chart		
5. Data Handling		Sorting by shape			Collect, sort and represent collections of objects Discuss and report on sorted collections of objects

Content Area Focus: Numbers, Operations and Relationships

Topics

- Oral counting
- Counting objects

New knowledge

- Oral counting 1–5
- Counting objects 1–3
- One-to-one correspondence
- Sequencing daily events
- Birthday chart
- Tidy-up chart
- Learners' symbols
- Helpers' chart
- Build a six-piece puzzle

Practise

- Sorting by colour
- Modelling with playdough/clay
- Drawing
- Building with blocks

New maths vocabulary

count	two	four	before	next	sort
one	three	five	after	last	

Getting ready

For the activities this week, you will need to prepare the following:

- make finger puppets of the Grade R Maths characters (page 102)
- picture symbol for each learner
- picture cards for the activities in the daily programme
- cut out small squares of paper for each learner to draw his/her face on (birthday chart)
- copy and colour pictures of each of the Grade R Maths characters (on the inside front cover of the *Poster Book*)
- prepare a wall display (see Day 5, page 16)
- make 6 six-piece puzzles (page 112)
- collect blocks (or make these from wood offcuts).

Whole class activities

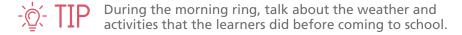
Day 1

- Classroom rules poster (see page 7)
- Daily programme picture cards
- Learners' symbols
- 1. **Introduction:** Talk about how we listen to each other, take turns and help each other.

- 2. **Learners' symbols:** Give each learner their own picture symbol to be used as their 'name tag' in the classroom, for example, South African flag, springbok, elephant, beetle, butterfly, lion, flower, car. Ask the learners to identify and describe each picture symbol.
- 3. **Sequencing daily events:** Show the learners the daily programme picture cards. Discuss the sequence of daily activities pointing to the relevant pictures. Display the daily programme picture cards at the learners' eye level.

Guiding questions:

- ★ What did you do before you came to school?
- ★ What do we do before we have a snack ... and after we've had our snack?
- ★ What do we do next?
- ★ What is the *last* thing we do *before* we go home?



4. Introducing small group activities: Explain that learners will be working in small groups each day. Show learners the five workstations. Explain the daily rotation. Remind learners of the group names. Remind them of the class rules. Explain and show the activity at each workstation. Explain the tidy-up process.

Integration

Home Language and Life Skills: sequence of daily events; classroom rules.

Day 2

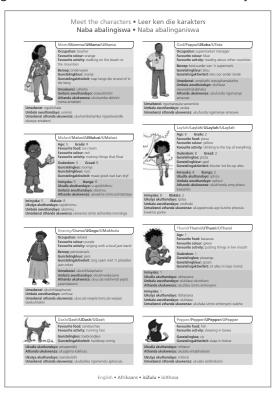
- Poster Book, inside front cover
- Finger puppets
- Rhyme: Five in my family (page 98)
- Classroom rules poster (page 7)
- Tidy-up chart
- Helpers' chart
- Learners' symbols
- 1. Introduction: Remind learners of the classroom rules.
- 2. **Helpers' chart:** Discuss groups and classroom duties. Introduce the helpers' chart and tidy-up chart. Use the learners' symbols on the helpers' chart and tidy-up chart.
- 3. **Rhyme:** Introduce the rhyme, *Five in my family*, showing the finger puppets one at a time.



4. **The Grade R Maths family story:** Show learners the inside front cover of the *Poster Book*. Talk about each of the characters and read the information about them. Together count the members in this family.

Guiding questions:

- ★ What can you see?
- How many people can you see? (Point and count.)
- What do you remember about these people?
- ★ What are their names?
- How many girls/boys are there?
- **★** How old are they?
- How are they different from each other? (for example, short/tall, younger)
- How many people are wearing trousers/ shoes, and so on?



5. **Small group activities:** Remind the learners about the activities at each workstation. Explain and show the activity at each workstation. Remind learners about the tidy-up process.

Day 3

- Classroom rules poster (page 7)
- Finger puppets
- Rhyme: Five in my family (page 98)
- Poster Book, Poster 4
- Grade R Maths family story (page 98)
- Helpers' chart
- Tidy-up chart
- Learners' symbols
- Paper plates
- Arrow for each plate
- 1. **Helpers' chart:** Remind the learners which groups they are in. Also remind them about the classroom duties and rules. Using a different paper plate for each group, glue the learners' symbols onto the paper plate and place an arrow on it. Learners touch and count the number of symbols on each plate. Use the arrow to point to the learner who is the group leader in each group.
- 2. **Tidy-up chart:** Place a learner symbol next to each tidy-up task and explain that the learner is responsible for that task.
- 3. **Rhyme:** Say the rhyme, *Five in my family*. Show the finger puppets one at a time and add actions.

- 4. **Oral counting 1–5:** Count from 1 to 5, clapping your hands on each number. Let the learners count and clap with you. Repeat as you say each learner's name by clapping on each syllable.
- 5. Grade R Maths family story: Show the learners Poster 4.

Guiding questions:

- ★ What can you see?
- How many children are hiding?
- ★ How many children are behind the door?
- How many more children could fit under the table?
- ★ Why do you think Granny isn't hiding under the table?
- ★ Where could she hide?
- ★ How many pets are there?

Together, point to and count the adults, the children and the animals on the poster. Tell the Grade R Maths family story and act it out with the learners.

6. **Small group activities:** Discuss the activities at each workstation. Remind learners about the tidy-up process.

Day 4

What you need

- Rhyme: Five in my family (page 98)
- Poster Book, Poster 4
- Small pieces of paper
- 12 paper plates
- 1. **Rhyme:** Say the rhyme, *Five in my family*. Learners show the correct number of fingers each time they say a number word.
- 2. **Oral counting 1–5:** Count from 1 to 5, stamping your foot on each number. Let learners count and stamp with you.
- 3. **Counting objects 1–3:** Show learners Poster 4. Point to and count three different items on the poster (for example, a book, the chair, the dog) with the learners.
- 4. **Sequencing daily events:** Ask the learners what they did when they woke up. Ask what they did when they arrived at school. Ask a learner to point to the matching picture on the daily programme. Ask questions about the order of activities in the daily programme.

Guiding questions:

- ★ What were we doing before we did maths?
- ★ What will we do next?
- ★ What will we do at the end of the day?
- ★ What will happen after that?

5. **Birthdays:** Give each learner a small piece of paper. Let the learners draw their faces on the paper. Seat learners in rows according to the month they were born in.

Guiding questions:

- ★ Which month has the most/fewest number of birthdays?
- ★ Which months have the same number of birthdays?

Display 12 paper plates. Write the name of a month on each plate. Paste the learners' face pictures on the paper plates according to the month of their birthday.

6. **Small group activities:** Discuss the activities at each workstation. Remind learners about the tidy-up process.

Day 5

What you need

- Rhyme: Five in my family (page 98)
- Learners' symbols
- Wall display
- 1. **Rhyme:** Say the rhyme, *Five in my family*. Learners show the correct number of fingers each time they say a number word.
- 2. **Oral counting 1–5:** Learners lift their arms and count from 1 to 5 each time.
- 3. **Learners' symbols:** Learners identify their symbols and then place them on the matching block on the wall display.

Guiding questions:

- ★ Where is your symbol?
- ★ What is the colour of your symbol?
- ★ Tell me about your symbol.
- 4. **Small group activities:** Discuss the activities at each workstation. Remind learners about the tidy-up process.

Integration

Home Language and Life Skills: oral vocabulary development; turntaking during discussions; fine motor development.

Small group activities



There is no teacherguided activity in Week 1. Move between each of the workstations to observe and support learners.

(0)

Observe how learners engage during the activities:

- How do they participate?
- Can they follow instructions?
- Are they able to concentrate on the activity?
- Are they able to share?
- How do they communicate with you and each other?
- How do they handle the resources?

Workstation 1

What you need

• A container with different-coloured animal and fruit counters (Resource Kit) for each learner

Learners sort counters by colour.



Workstation 2

What you need

• Playdough or clay

Learners use playdough or clay to make a model.

Workstation 3

What you need

Paper

Crayons

Learners draw a picture of their own choice.



Choose a range of puzzles to suit the different abilities of the learners.

Workstation 4

What you need

• A six-piece puzzle for each learner (see page 112)

Learners build a six-piece puzzle.

Workstation 5

What you need

Building blocks

Learners use building blocks to create their own constructions.



Content Area Focus: Numbers, Operations and Relationships

Topics

- Number symbols
- Number words

New knowledge

- Number 1
- Solving problems in everyday contexts

Practise

- Oral counting 1–5
- Counting objects 1–3
- Reinforce vocabulary from Week 1
- Sorting by colour

New maths vocabulary

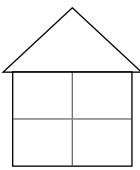
behind in front first second third

Getting ready

Use opportunities in the daily routine to introduce the new maths vocabulary.

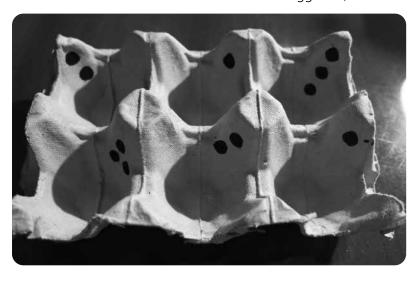
Remember to talk about the daily





For the activities this week, you will need to prepare the following:

- fill a bag with enough different small objects so that you have one for each learner
- a number frieze for number 1:
 - make a house shape on an A3 page
 - copy and colour in the templates on page 103 1, one, one dot, one elephant
 - glue the labels and pictures into the house
- set up the maths area with a focus on '1' look for pictures of single objects
- make 15 number '1' dot cards
- make 15 number '1' symbol cards (template page 103)
- make 5 number 'one' word cards (template page 103)
- collect 10 egg boxes (Mark each egg cup with one, two or three dots. Make various combinations of dots on each egg box.)



- 8 everyday objects, for example, tennis ball, mug, pen, hairbrush, scissors, teaspoon, key, cellphone
- 8 photocopied 'number 1' templates (page 106) covered in plastic or in a plastic sleeve
- 3 tub lids per learner in a small group (approximately 18 lids).

Whole class activities

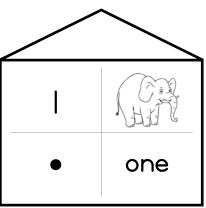
Day 1



Remind learners of group names and class rules, and the tidy-up process.

What you need

- Song: Hokey Pokey (page 98)
- Number 1 story (page 99)
- 15 number '1' dot cards
- 15 number '1' symbol cards
- Enough different small objects so that you have one for each learner
- Number frieze: Number 1
- 1. **Song:** Introduce the song, *Hokey Pokey*, with actions.
- 2. **Oral counting 1–5:** Count and stamp your foot on each number. Repeat with learners joining in.
- 3. Introducing number '1': Tell the Number 1 story. The animal's house is the focus of the story. Show the parts of the number frieze as you build up the story of the animal and images of the house: the different representations of number 1, for example, the elephant picture, the dot, the symbol and the word. Display the parts of the frieze in the animal house on the wall in the maths area.



- 4. **Body parts:** Talk about body parts that we only have one of, for example, one nose, one mouth, one head, one tongue.
- 5. **Identifying one object:** Place enough different small objects in a bag for each learner to take one. Learners take turns to take out one object. They describe the objects and say how they would use it. Prompt the use of the word 'one', for example, 'I have one hairbrush.' Now place the objects on a table. Five learners place a number 1 dot card and number 1 symbol card next to five of the objects on the table. Repeat the process with two other groups of five learners.
- 6. **Small group activities:** Show the learners the four workstations. Demonstrate the activity at each workstation. Explain the tidy-up process.

Integration

Home Language and Life Skills: packing away according to picture labels on shelves, boxes and containers (emergent literacy); parts of the body.



During routine times and lining up, use ordinal numbers such as: first, second, third.

Remember to do the calendar, days of the week, months of the year and birthday chart each day.

What you need

- Song: *Hokey Pokey* (page 98)
- Number frieze: Number 1
- Number '1' symbol cards and number 'one' word cards
- 1. **Song:** Sing the song, *Hokey Pokey*, with the actions.
- 2. **Oral counting 1–5:** Learners pretend to be elephants and stamp their feet as they count to five.
- 3. **Number frieze:** Discuss the number frieze and the story from Day 1. **Guiding questions:**
 - ★ How many elephants live in the house?
 - How many trees are in the garden?
 - ★ Why do you think the elephant lives alone?
 - ★ Why do you think there is only one bench in the garden?
 - ★ Which parts of the story did you enjoy? Why?

Give learners number '1' symbol cards and number 'one' word cards. They match these to '1' and 'one' on the number frieze.

- 4. **Body parts:** Play a game. Learners must only copy your action if it correctly matches your words:
 - ★ I have one nose. (Touch both eyes.)
 - ★ I have one mouth. (Touch both ears.)
 - ★ I have one neck. (Touch your neck.)
 - ★ I have one head. (Touch your toes.)

Learners point to the body parts they have one of. They repeat, 'one head, one nose, one mouth, one chin, one neck' as they point to these parts on their own bodies.

- 5. **Practising number '1':** Ask, 'Who can see something that there is only one of in the classroom?' Give a number '1' symbol card to each learner who responds. Learners place the card on the object.
 - Show learners how to 'write' the number symbol '1' in the air. Learners 'write' '1' in the air, on their hands and legs, and on a friend's back.
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

What you need

- Song: Hokey Pokey (page 98)
- Different objects grouped in 1s, 2s and 3s (for example, toy cars, blocks, socks, balls) and

placed around the classroom. The groups of objects should be at learners' eye level and easily visible.

- 1. **Song:** Sing the song, *Hokey Pokey*. Add another verse in which learners use another part of their bodies, for example, a foot or finger.
- 2. **Oral counting 1–5:** Learners march on the spot while counting to five.
- 3. **Counting objects 1–3:** Learners look for objects around the classroom, for example, 1 ball, 2 blocks, and so on.

Play 'I spy', for example, 'I spy with my little eye, one thing that is round.' (one ball); 'I spy with my little eye, two things that you can drive.' (two cars); 'I spy with my little eye, three things that I can use to build a tower.' (three blocks). When a learner correctly identifies the object/s, they bring the objects to the front of the class. Touch and count them together.

4. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 4

What you need

- Rhyme: Bananas (page 98)
- Poster Book, Poster 4
- Grade R Maths family story (page 98)
- 5 number '1' dot cards
- 2 soccer balls
- 1. **Rhyme:** Introduce the rhyme, *Bananas*.
- 2. Oral counting 1–5: Learners click their fingers and count to five.
- 3. **Counting objects 1–3:** Tell the Poster 4 story (Grade R Maths family story (page 98)).



Guiding questions:

- ★ What are the names of the people and the dog?
- ★ How many children can you see?
- ★ Why do you think Dad isn't in this picture?

Together count how many people there are and how many animals there are.

- * Are there more people or more animals in the picture?
- ★ What can you see in the picture that there is only one of?

- ★ What can you see that there are two of?
- * If we made a group of three things that belong together in this picture, what would they be?

Learners take turns to come and point to objects in the picture. Learners place a number 1 dot card where there is only one object.

4. **Problem solving:** Talk about Poster 4.

Guiding questions:

- ★ Who do you think plays with this soccer ball?
- * If Laylah and Malusi both want a ball, how many more balls would Mom have to buy? (Use two learners and two soccer balls to demonstrate.)
- ★ How many cats can you see?
- ★ How many mugs are on the table?
- * Are there more people or more mugs?
- * How many more mugs do we need for all the people in the picture to have one?
- 5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 5

What you need

- Rhyme: Bananas (page 98)
- Classroom objects
- Number '1' symbol cards, number '1' dot cards and number 'one' word cards
- 1. **Rhyme:** Say the rhyme, *Bananas*.
- 2. **Oral counting 1–5:** Learners nod their heads and count to five. Repeat.
- 3. **Counting objects 1–3:** Do a movement sequence using three different actions, for example, one stamp, two nods of the head and three claps. Repeat a few times. Ask learners to suggest three different actions to create a new sequence.
- 4. **Reinforcing number '1':** Ask a few learners at a time to fetch an object from the classroom and place it on the maths table. Give other learners a '1' number symbol or a dot card to attach to the object on the table. Repeat.
- 5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Integration

Home Language and Life Skills: look for 'one' in stories and other activities.

Small group activities

Teacher-guided activity

What you need

- Handful of counters for each learner
- For each learner, a tub with:
 - Number '1' dot and symbol cards
 - Picture card representing one object
 - 3 animal counters

- 8 objects to match the picture
- 3 plastic yoghurt lids for each learner
- Extra animal counters
- Playdough
- 1. Counting objects one-to-one correspondence: Place a pile of different-coloured counters in front of each learner. Learners touch and count them.
- 2. **Sorting:** Learners sort their animal counters according to colour. They count how many of each colour they each have.
- 3. **Practising number '1':** Place the 8 objects that match the picture cards on the mat. Ask each learner to choose one object from the pile in the middle of the circle that matches their picture card. Learners match the number symbol card to their picture cards. Learners swap picture cards with each other and repeat.

Give each learner three plastic yoghurt tub lids. Ask learners to place one animal counter from their tubs on each lid. Learners place dot cards, number symbol and word cards next to each lid. Place a few extra animal counters on one of each learner's lids. Ask the learners to remove the counters to make each lid have 'one' again.

Form/write '1' in the air. Give each learner a small amount of playdough and ask them to make the shape of the number '1' symbol.







Observe, support and ask questions of learners. It is important to know what the learners can already do so that you can build on their prior knowledge. Keep detailed notes on each learner in the group.

Check that learners are able to:

- sort the counters according to colour
- count a group of objects using one-to-one correspondence
- match one object to the picture symbol card and learner's symbol
- match the number '1' symbol to a picture card symbol for '1' and one object

Workstation 1

What you need

- 10 egg boxes marked with groups of dots from one to three in each egg cup
- A pile of fruit counters for each learner

Learners choose an egg box. They match the number of fruit counters to the number of dots in each egg cup. Learners repeat this using different egg boxes.



Workstation 2

What you need

- Playdough
- Paper

Crayons

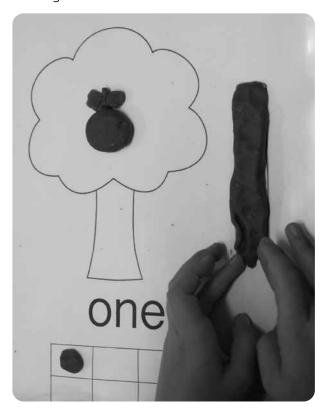
Learners use playdough to make one object. Learners draw a picture of that object.

Workstation 3

What you need

Playdough template: Number 1 Playdough per learner (page 106)

Learners use playdough to form the number '1', to roll one ball of playdough to place on the tree, and to roll one ball of playdough to place in the grid.



Workstation 4

What you need

• Building blocks

Learners use building blocks to build anything of their choice.

Independent activities could include threading, peg boards, buttoning, zipping, drawing and painting.

Content Area Focus: Space and Shape (Geometry)

Topics

- Recognise, identify and name 3-D objects
- Describe, sort and compare
 3-D objects: balls and boxes
- Position, orientation and views: in and out

New knowledge

- Counting objects 1–5
- Properties of balls and boxes
- Objects that roll or slide
- Position: in and out
- Big and small
- Biggest and smallest

Practise

- Oral counting 1–5
- Reinforce 1
- Sorting by size

New maths vocabulary

roll slide big/biggest small/smallest in out side corner edge straight flat round

Getting ready

For the activities this week, you will need to prepare the following:

- 5 A4-sized banana pictures
- 5 small cardboard fish
- 1 large cardboard fish, big enough to fit the 5 small cardboard fish into
- 2 medium-sized cardboard boxes, one with a 'big' picture label and one with a 'small' picture label
- a small ramp made from a hardcover book, a wooden board/plank, or a table top resting on a small stone or box
- newspaper
- 12 small cardboard boxes, for example, toothpaste, soap or spice boxes
- a collection of balls of different sizes.

Whole class activities

Day 1

- Rhyme: Bananas (page 98)
- 5 banana pictures
- A collection of boxes and balls of different sizes
- 1. Rhyme: Say the rhyme, Bananas.
- 2. Oral counting: The learners pat their knees and count from 1 to 5.

- 3. **Counting objects 1–5:** Six learners stand at the front. Give one learner the five banana pictures. All the learners say the *Bananas* rhyme while the learner holding the banana pictures gives one to each of the other five learners standing in the front. Discuss:
 - ★ How many bananas is each learner holding? (Count one for each learner.)
 - ★ How many bananas are there all together? (Count these.)

Two learners stay standing. The others give their banana pictures to them and then sit down. Ask the class who has more bananas and who has less. Count the bananas that each learner has.

4. **Discovering properties of boxes:** Place five different-sized boxes on the mat. Count the boxes. Hold up a box and discuss.

Guiding questions:

- ★ What can you tell me about this box?
- Can anyone show me where you can see a corner in our classroom? (Ask one learner to stand in a corner.)
- ★ Can anyone show me a corner on this box?
- * Let's count all the corners on the box.
- Can you show me one side of the box?
- Can you show me another side of the box?
- ★ How many sides are there altogether?
- ★ Where is the edge of the box?
- Can we count all the edges?
- 5. Discovering properties of balls: Hold up a ball for the class to see.
 Guiding questions:
 - ★ What can you tell me about this ball?

Ask the learners to sit in a circle and pass the ball around. As it is passed from learner to learner, they describe the shape of the ball. Prompt the learners to tell you that it is round and that it has no corners or edges.

- ★ What can you tell me about the surface of the ball?
- ★ Does the ball have corners or edges?
- 6. **Sliding and rolling:** Learners roll a ball to each other. Describe how the ball moves: we 'roll' it. Show the learners a box.

Guiding questions:

- ★ How does the ball move?
- ★ Can we roll the box?
- What would be the best way to move the box across the floor? (Prompt learners to say slide.)
- 7. **Small group activities:** Describe the activities at the four workstations. Remind learners about the tidy-up process.



When referring to other objects in the classroom, for example, desks, books or blocks, use maths vocabulary such as: round, sides, corners, edges, straight, flat.

What you need

- Rhyme: One baby fish (page 99)
- 5 cardboard fish
- An empty box to put the fish into A tambourine or shakers
- A collection of different-sized balls and boxes
- 1. **Rhyme and counting objects 1–5:** Hold up and count the five cardboard fish as learners say the rhyme, One baby fish. Ask five learners to stand and each hold one fish. These five learners put the fish into a box as everyone says the rhyme together.
- 2. **Oral counting 1–5:** Count to the rhythm of a tambourine or shakers.
- 3. **Problem solving:** Use the five fish in the box to solve problems. **Guiding questions:**
 - ★ If I take out enough fish to hold one in each of my hands, how many fish will I be holding?
 - If I take out one more fish, how many fish will I be holding? Count 1, 2, 3 fish with the class. Take another fish out and count 1, 2, 3, 4 together. Repeat this, counting to 5.
 - ★ How many fish will I be holding if I put one fish back into the box?
- 4. Sorting and comparing balls and boxes: Put a collection of differentsized boxes and balls on the mat. Ask learners to show you something with corners, something that is round, something with edges, something that can roll. Sort the balls and boxes into two groups with the learners. Choose learners to take turns to fetch a box or ball from the collection.

Guiding questions:

- Can you tell me about the box/the ball?
- ★ Which group will you put it in?
- ★ Why do you think it belongs in this group?
- 5. **Comparing sizes of boxes:** Learners identify which of the boxes are big and which are small. Compare a big box and a small box.
- 6. **Comparing sizes of balls:** Learners identify which of the balls are big and which are small. Compare a big ball with a small ball.
- 7. **Practising 'big' and 'small':** Ask questions about big and small objects. **Guiding questions:**
 - Who can point to the biggest object in the pile?
 - ★ Who can point to the biggest object in the classroom?
 - ★ What makes it the biggest?
 - ★ Who can point to the smallest object in the pile?
 - ★ Is there anything smaller than this in the classroom?
 - Can anyone think of something else that is bigger?
 - Can anyone think of something else that is smaller?
- 8. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.



Leave the balls and boxes in containers on or next to the maths table for the learners to further explore in their own time.

What you need

- Rhyme: One baby fish (page 99)
- 5 cardboard fish
- 1 large cardboard fish
- Prestik

- A collection of different-sized balls and boxes
- A small ramp
- A ball and a box for the maths table
- 1. **Rhyme:** Hold up the cardboard fish one at a time as you say the rhyme, *One baby fish*. Ask five learners to stand and each hold one fish. The five learners put the fish into the box as they say the rhyme together.
- 2. Oral counting: Learners nod and count from 1 to 5.
- 3. **Reinforcing 'big' and 'small':** Put the big fish on the wall above the maths table. Say, 'This big fish wants to eat the small fish in the box.' Hand the five small cardboard fish to five different learners. Say together, 'It eats one fish.' 'It eats another fish.' as each learner attaches a small fish to the large fish. After each fish is added, ask the following question.

Guiding question:

How many small fish has the big fish eaten?

Continue in this way until the learners have attached all five smaller fish. Ask the learners how many small fish the big fish ate altogether. Count the small fish.

4. **Comparing properties of boxes and balls:** Mix up a collection of boxes and balls. Learners sort the boxes and balls.

Guiding questions:

- ★ Why did you sort them like that?
- ★ What is the same about all the things in this group? (Point to the boxes.)
- And in this group? (Point to the balls.)
- Could you sort them another way?
- ★ Why have you put this in this group?
- ★ Where should this one go? Why?
- ★ If you choose an object with corners, which group should you put it in?
- If you choose an object with flat sides, which group should it go into?
- 5. **Sliding and rolling:** Set up a ramp. Learners choose a ball or a box.

Guiding questions:

- ★ Which of these do you think will slide down the ramp?
- ★ Why do you think they will slide?
- ★ Which of these do you think will roll?
- ★ Why do you think they will roll?
- ★ Which one do you think will get to the bottom first? Why?
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.



This ramp activity could be done outside. Give the learners time to experiment with sliding and rolling the boxes and balls.



What you need

- Rhyme: One baby fish (page 99)
- A collection of different-sized balls and boxes placed around the classroom
- 1. **Rhyme:** Say the rhyme, *One baby fish*. Add actions. Choose five learners to be the five fish. Repeat giving five other learners a turn.
- 2. **Oral counting:** Learners flick their fingers and count from 1 to 5 to the rhythm of the tambourine or shakers.
- 3. **Reinforcing 1, practising big and small:** Choose a few learners to fetch one large/small object in the classroom and return to the mat. They tell the group what their object is and whether it is big or small. Learners place their objects in groups of big objects and small objects.
- 4. **Reinforcing sliding and rolling:** Learners describe what happened on Day 3 with the boxes and balls on the ramp. A few learners fetch balls and boxes and roll or slide them to another learner in the circle. Discuss which objects roll and which objects slide.

Guiding questions:

- ★ Which things roll? Why do you think they roll?
- Which things slide? Why do you think they slide?
- 5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 5

What you need

- Any rhyme or song from Weeks 1-3
- The big fish picture with 5 smaller fish pictures (from Day 3) • Buckets or other large containers
- Hula hoops for half the learners
- Big boxes for climbing into
 - Beanbags
- 1. **Rhyme:** Say or sing any of the rhymes or songs from Weeks 1 to 3.
- 2. **Oral counting:** Learners swing their arms and count from 1 to 5.
- 3. **Counting 1–5:** Take the pictures of the smaller fish off the big fish, and count them as you put them in the box on the maths table.
- 4. Introducing 'in' and 'out': Talk about where the fish are. This is a movement activity that requires space. Learners work in groups and follow instructions:
 - Jump into a hula hoop and jump out.
 - Stand with one leg in the hula hoop and one leg out.
 - Climb into the box and climb out.
 - * Throw a beanbag into a bucket and take it out.

Learners say where they are, or where the beanbag is.



floor space for this activity as boxes are often difficult to slide on a mat.



Draw shapes with chalk if you do not have hula hoops or large boxes. Make balls out of newspaper if you do not have beanbags.

5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Integration

Home Language and Life Skills: place a number of boxes outdoors for the learners to use to experiment with 'in' and 'out'.

Small group activities

Teacher-guided activity

What you need

- Selection of ball- and box-shaped
 Big and small building blocks
 everyday objects
 15 big and small objects
- Small ramp
- 1. **Counting 1–5:** Learners hold up a hand and count from 1 to 5 on their fingers.
- 2. **'Big' and 'small' game:** Put a selection of 15 big and small objects in the centre of the group. Discuss which are big and which are small. Explain the game to learners:
 - Call out a learner's name and then say 'big' or 'small'. As quickly as possible the learner takes a big or small object. Each learner has a turn. At the end of the game, learners replace the objects in the centre of the mat. Ask learners if they had a big or a small object, and what the object was.
- 3. **Sorting objects into 'big' and 'small', counting:** Give each learner five different-sized blocks that can be sorted into big and small. Learners count their blocks. Learners show their biggest and smallest block to the group. Learners order their blocks from smallest to biggest. Learners order the blocks from biggest to smallest.
- 4. **Properties of balls and boxes game:** Put a selection of ball- and box-shaped objects on the mat. Call out a learner's name and one property of a box or a ball, for example, it has corners, it is round, it has edges, it has sides, it rolls, it slides. Learners identify the object with that property. Learners keep the object once identified. Compare the similarities and differences between their objects.

Guiding questions:

- ★ Which have corners?
- ★ Which are round?
- ★ Which have sides?

Sort objects that slide and roll. Choose five objects.

- ★ Which objects do you think will roll? Why?
- ★ Which objects do you think will slide? Why?

Learners use the ramp to explore whether the objects roll or slide. Learners make two piles of objects: those that slide and those that roll.

- ★ How many objects do we have that slide? How many that roll?
- ★ Which group has more? Which group has less?

Integration

Home Language and Life Skills (outdoor activities):

- Vocabulary development (opposites) and responding to instructions.
- Learners work in groups to explore which objects roll or slide down a ramp.
- To reinforce the concept of big and small, the learners roll up into a small ball shape and then stretch out to make themselves as big as they can.



Check that learners are able to:

- sort and compare balls and boxes
- identify the properties of balls and boxes
- identify objects that roll and that slide
- understand the positions 'in' and 'out' (Observe during the whole group activity on Day 5.)
- understand the concepts 'big' and 'small'

Workstation 1

What you need

- Boxes of various sizes
- Glue or stickers

• Strips of newspaper

Learners use the boxes, glue (or stickers) and strips of newspaper to construct objects of their choice.

Workstation 2

What you need

Playdough

 2 boxes, one with a 'big' picture label and one with a 'small' picture label

Learners make big and small playdough balls and then sort them by placing them in the boxes with 'big' and 'small' labels on them.

-`@́- TIP

Keep a selection of these prints for display to be discussed in Week 5.

Workstation 3

- Paint in trays
- Flat sponges (optional)
- Paper

• Different-sized wooden blocks or cardboard boxes

Pour a thin layer of paint into a tub or plastic tray. Learners dip one side of a block (or small cardboard box, for example, a toothpaste, soap or spice box) into the paint tray. They press the block down onto paper to make prints.

What you need



Workstation 4

What you need

• Building blocks of different sizes • Plastic farm animals

Put out wooden blocks and plastic farm animals. Learners build animal shelters.



Content Area Focus: Space and Shape (Geometry)

Topics

- Recognise, identify and name 2-D shapes: circle
- Describe, sort and compare 3-D objects and 2-D shapes (circle)
- Symmetry

New knowledge

- Circle
- Number 2
- Symmetry

Practise

- Oral counting 1-5
- Number 1
- Counting objects 1–5
- Six-piece puzzles

New maths vocabulary

circle same curved line shape

top bottom middle

Getting ready

For the activities this week, you will need to prepare the following:

- maths table for number '2'. Clear the objects and cards used for number '1'.
- a number frieze for number 2 using the house outline on page 19 and templates on page 104 (2, two, two dots, two zebras)
- a set of number '2' cards: symbol, word and dot
- a box containing a collection of 16 circular objects, for example, cup, plate, can, bucket, clock, bowl, cardboard toilet roll inner, lids
- 2 large labelled circles
- pictures of a fish and a frog
- 1 picture of a beetle (template on page 109)
- 10 pictures of circles drawn or cut out of magazines or newspapers
- 8 photocopied 'number 2' templates (page 107) covered in plastic or in a plastic sleeve
- a circle outline drawn on A4 paper for each learner
- 6 six-piece puzzles (template on page 112)
- advertising pamphlets, magazines and newspapers
- 2 plastic yoghurt lids
- picture cards for 1 and 2.

Whole class activities

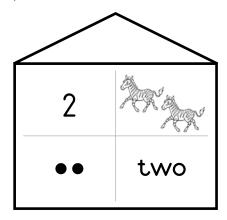
Day 1

-`@́- TIP

Remember to use the toilet routine to practise ordinal numbers (first, second, third) and position (in front of, behind, between, tallest, shortest).

What you need

- Rhyme: One baby fish (page 99)
- Number 2 story (page 99)
- Number frieze: Number 2
- Place 5 pairs of objects around the classroom
- 15 number '2' dot, word and symbol cards
- 1. **Rhyme:** Say the rhyme, *One baby fish*.
- 2. **Oral counting:** Learners count from 1 to 5 and tap their knees. Repeat while learners tap their shoulders.
- 3. **Introducing number '2':** Talk about the *Number 1 story*. Tell the *Number 2 story*. The animals' house is the focus of the story. Show the parts of the number frieze as you build up the story of the animals and images of the house: the different representations of number 2, for example, the picture, the dots, the symbol and the word. Display the parts of the frieze in the animal house on the wall in the maths area.



Guiding questions:

- ★ How many zebras live in this house?
- ★ What else are there two of in the story?
- ★ How many more zebras than elephants are there in the pictures?
- Can you think of two things you would like to add?
- 4. Matching dots, pictures, number symbols and words for '2':

 Ask learners to match a picture, a dot and a symbol to the Number 2 frieze. Show learners the number word and say the word 'two'. Ask a learner to match the number word to the frieze.
- 5. **Finding 2 things:** Select learners to find two of the same objects in the classroom. Give other learners the number '2' cards to match to the objects. Place them on the maths table.
- 6. **Small group activities:** Describe the activities at the four workstations. Remind learners about the tidy-up process.

Day 2

What you need

- Fish picture
- Frog picture
- Rhyme: One, two, three, four, five (page 99)
- Soccer ball
- 2 large sheets of paper and a koki
 2 large labelled circles
- 16 circular objects
- Shallow tray with paint
- Paper
- Circle attribute blocks (Resource Kit)
- 1. Rhyme: Say the rhyme, One, two, three, four, five, as you show the pictures of the fish and frog. Learners say the rhyme with you.
- 2. Oral counting: Learners jump like frogs and count from 1 to 5.
- 3. Counting objects 1–5: Learners hold up the correct number of fingers as they say the rhyme. Say the rhyme, clapping once for each number. Discuss the rhyme.

Guiding question:

- ★ How many fish did the child catch? How many frogs?
- 4. Comparing 2-D shapes and 3-D objects: Discuss 'shape': everything has a shape. There are many different shapes, for example, your body has a shape, the windows in the classroom have a shape, the soccer ball has a shape, the picture has a shape.

Guiding questions:

- What can you tell me about the shape of the windows?
- ★ What can you tell me about the shape of the soccer ball?
- ★ What other shapes can we see in our classroom?
- What shapes can you remember from your bedrooms at home?
- 5. Going from 3-D to 2-D: Ask one learner to stand. Demonstrate that depending on where you are looking from, you can see a different view of the learner – from the front, back, side and above (use a chair to stand on). Demonstrate that it is possible to turn the learner around, hold him/her and hug him/her.

Let the learner lie on his/her back on a large sheet of paper. Trace around him/her. Draw learners' attention to the line as you draw: 'around his/her head', 'along his/her side'. When the learner stands up, ask what learners can see on the paper (a picture of the learner's body).



-©-TIP

Put two labelled pictures of a circle on the wall above the maths table.



6. **Introducing the circle:** Learners sit in pairs. Place a box containing a collection of circle-shaped objects on the mat. One learner from each pair fetches an object. In pairs, they take turns to run a finger around the circular edges of the objects, for example, the rim of the cup, the edge of the plate.

Take one object, for example, a plate. Say, 'What will happen if we draw around the edge of the plate?'

Put a piece of paper on the mat. Trace around the plate with a koki. Ask learners if they know what this shape is called. Tell them it is a circle. Ask about the shape. Ask the learners to watch the line as you draw. Talk about how the line curves as it goes around the object.

Ask a learner to choose another object and help them to draw around it. Talk about how the line curves. Ask learners if they can see any other circles in the classroom.

7. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 3

What you need

- Rhyme: One, two, three, four, five (page 99)
- Song: Circles (page 99)
- 10 pictures of circles (drawn or cut out of magazines or newspapers)
- 1. Rhyme: Say the rhyme, One, two, three, four, five.
- 2. **Oral counting:** Learners move their arms like fish fins as they count from 1 to 5.
- 3. **Counting objects 1–5:** Learners show their fingers as they count from 1 to 5.
- 4. Reinforcing number '2': Draw a large number '2' in the air. Learners copy you and draw a '2' on their hands and on a friend's back. Ask what parts of our bodies we have two of (hands, wrists, arms, legs, eyes, ears, feet, knees, ankles, elbows, hips, shoulders). Count body parts as they mention them: '1, 2 hands' and so on.
- 5. **Song:** Introduce the song, *Circles*. Add actions.
- 6. **Looking for circles:** Ask a few learners at a time to find two circles in the classroom and place them on the mat. Ask the other learners whether all the shapes are circles. Ask a few learners to put the circles into groups of twos.
- 7. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

-©- TIP

Use the opportunity to talk about whether everyone has two hands, wrists, arms, and so on.

Day 4

What you need

- Song: Circles (page 99)
- A large ball

- 5 counters (Resource Kit)
- Mirrors (optional)
- 1. **Song:** Sing the song, *Circles*.
- 2. **Oral counting:** Learners pass a large ball around, counting from 1 to 5. Repeat this until everyone has had a turn to pass the ball.
- 3. **Counting objects 1–5:** Show five counters and ask how many they think you are holding. Count the counters together.
- 4. **Reinforcing the circle:** Use chalk to trace around at least five large round objects (for example, a hula hoop, bucket, tyre) on the floor. Learners take turns in groups to walk on the drawn shapes.
- 5. **Symmetry:** Ask one learner to stand facing the other learners. **Guiding questions:**
 - What does _____ have on this side of her body (point to the left side of the learner's body, for example, an ear, eye, arm, leg) that she also has on the other side of her body?
 - ★ Does she have an arm on the other side? And an ear?
 In pairs, learners face each other and identify the body parts they have that match on each side.
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 5

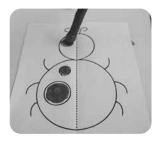
What you need

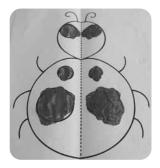
- Rhyme: One, two, three, four, five (page 99)
- Song: Circles (page 99)
- 5 large different-coloured circle attribute blocks (*Resource Kit*)
- Poster Book, Poster 8
- Beetle picture (page 109)
- Paint and paintbrush
- 1. **Rhyme and song:** Say the rhyme, *One, two, three, four, five*, and sing the song, *Circles*.
- 2. **Oral counting:** Learners tap both their hands on their shoulders and count from 1 to 5. Repeat tapping each shoulder with the opposite hand.
- 3. **Counting objects 1–5:** Give five learners each a different-coloured circle attribute block. Together count them. Ask how many are red, yellow, blue, and so on.
- 4. **Looking for circles:** Look at Poster 8. Learners look for the circles on the poster.





If you have mirrors available, let learners look at themselves in the mirrors to explore symmetry in their own bodies by identifying the matching body parts on the left and right sides.





5. **Symmetry in circles:** Show the learners the beetle picture. Ask them how many circles they can see – the body, head, two spots and one eye. Count the circles together. Tell this Beetle story: 'Beetle is worried that she doesn't look like other beetles. Their bodies look exactly the same on each side. She also wants to have two dots on each side of her body.'

Guiding question:

- ★ How do you think we can help this beetle solve her problem? Put paint on each of the two spots and eye on the one side of the beetle picture. Fold the picture of the beetle in half along the midline, so that two dots and another eye are printed on the other half of the beetle. Discuss with learners whether they think the two sides of the beetle are the same.
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Integration

Home Language and Life Skills:

- Vocabulary development (same/different).
- Outdoor activity: Trace the outline of the learners' bodies using chalk or a stick. Help the learners to draw a line down the middle of their body outlines.

Small group activities

Teacher-guided activity

What you need

- 30 different-coloured counters For each learner:
- A tub with:
 - Number symbol, picture and dot cards: 1 and 2 (Resource Kit) • 2 plastic yoghurt lids
 - 5 colour counters (Resource Kit)
 - 'Circle' pictures (page 110)
- Small chalkboards, whiteboards or A4 paper
- Chalk/whiteboard markers/ crayons
- 1. Practising number '2': Give each learner a tub. Talk about the contents. Learners take out and place each of their picture cards for 'one' and 'two' in front of them.

Guiding questions and instructions:

- ★ What do you see?
- ★ What is the same? What is the difference between them?
- ★ How many pictures are there on each of your picture cards?
- ★ Match each dot card to a picture card (1 and 2).
- ★ How many counters do you need to match to each of the picture cards?
- ★ Match your number '2' card. (Point to the Number 2 frieze above) the maths table.)

-`@́- TIP

Learners who are not yet ready to write or draw can use playdough to make a '2' and two objects.



Write a large '2' on a chalkboard, whiteboard or paper. Learners copy this and draw two objects on their own chalkboards, whiteboards or paper.

2. **Reinforcing the circle:** Learners take the eight pictures from page 110 out of the tub. They place them on the mat in front of them.

Guiding questions:

- ★ What do you see in each of these pictures?
- ★ What can you tell me about the shapes in each of these pictures?
- Point to a shape that is not a circle. Why is this not a circle?
- * How do we know if something is a circle?

Hold up a coloured disc counter.

Guiding questions and instructions:

★ What shape does this look like?

Place a pile of counters on the mat and give instructions. Ask learners to:

- ★ Pick up one blue counter.
- ★ Pick up one red counter.
- ★ Pick up one yellow counter.
- _____, take a red counter and give it to _____.
- _____, take any colour counter.
- _____, find a counter exactly like the one _____ has.

Give each learner two plastic yoghurt lids.

- Everyone take one counter and put it on a lid.
- ★ Have you all got one? Let's check.
- Everyone take two counters and put them on your other plastic lid.
- ★ Have you all got two? Let's count.
- Can you arrange your two counters differently on your lid?
- Count again.

Learners match their dot cards 1 and 2 to the counters on the lids. Encourage the learners to arrange their counters to match yours.







Check that learners are able to:

- match number 2 pictures with two objects, dot cards and symbol cards
- recognise, identify and name a circle

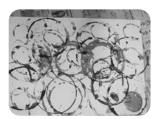
Workstation 1

What you need

 Playdough template: Number 2
 Playdough per learner (page 107)

Learners use playdough to form the number '2', to roll two balls of playdough to place on the tree, and to roll two balls of playdough to place in the grid.

Workstation 2



What you need

- Paint in shallow trays
- Large sheets of paper for each learner
- Different-sized objects with circular surfaces (for example, yoghurt containers, tins, toilet roll inners, disposable cups, lids)

Learners print using circle-shaped objects. Press the object into the paint and then onto paper to create a circle print.

Workstation 3



What you need

- Pictures of food from advertising 1 large circle drawn on A4 paper pamphlets, magazines and newspapers
 - per learner
 - Scissors and glue

Learners cut out the circle to make a 'plate'. They cut out and glue pictures of food onto their plates.



Learners who struggle with cutting can tear pictures and can roll playdough into a 'sausage' shape to place on the 'plate' outline.

Workstation 4

What you need

• Puzzles with a 'body' theme

Learners each build a puzzle.

Content Area Focus: Space and Shape (Geometry)

Topics

- Recognise, identify and name 2-D shapes: square
- Describe, sort and compare 3-D objects and 2-D shapes
- Direction: forwards, backwards
- Position: inside, outside

New knowledge

- 2-D shapes: square
- Direction: forwards and backwards
- Position: inside and outside

Practise

- Circle
- Number concepts 1 and 2
- Oral counting 1–5
- Counting objects 1–5
- Boxes and balls
- Six-piece puzzles

New maths vocabulary

square side flat forwards corner straight surface backwards

Getting ready

For the activities this week, you will need to prepare the following:

- a large box that has at least two square faces
- a large cardboard square and circle
- square shapes of any size and colour
- 5 pages with a red square and 5 pages with a blue square
- colour squares for each learner
- square-shaped objects, for example, wooden blocks, small square notepad, square beanbag, dice, mosaic pieces, square attribute blocks
- circle-shaped objects, for example, plastic milk bottle caps, plastic lids, large buttons, circle attribute blocks
- make 6 sets of 2 dot cards with 1 and 2 dots, 2 picture cards with 1 and 2 pictures of animals for learners' tubs
- 7 pictures of squares
- dot and animal cards (Resource Kit).



Remember to use the toilet routine to practise ordinal numbers: first, second, third; position: in front of, behind, between, tallest, shortest.

Whole class activities

Day 1

What you need

- 3-D objects such as blocks, boxes of different sizes, square containers for the maths table
- 1 large box1 large sheet of paper
- A koki
- 1 large cardboard square
- 1. **Rhyme:** Say any of the counting rhymes from the previous weeks.
- 2. **Oral counting:** Learners pat their tummies and count from 1 to 5.
- 3. **Counting objects 1–5:** Place the boxes and blocks on the mat. Ask learners to fetch one block and one box.

Guiding questions:

★ How many objects do we have?

Ask them to fetch another block.

★ How many objects do we have now?

Repeat until there are five objects. The learners count as they touch each object.

- ★ Do we have more boxes or more blocks?
- ★ Which do we have fewer of?
- 4. Making squares: Talk about one of the boxes in the classroom. Trace around a large square box to draw a square. Talk about how the line goes straight along, makes a sharp turn at a corner and then goes straight again, along all the edges.

Guiding questions:

- ★ Do you know what this shape is called?
- How many straight lines does the square have?
- How many corners does this square have?
- ★ Which other sides could I use on this box to make another square shape on the paper?
- ★ Will it be the same? Why?

Trace around the side learners identify, describing the lines as you do so.

5. **Properties of a square:** Show the cardboard square.

Guiding questions:

- ★ Does anyone know what this shape is called?
- ★ Is this shape the same as the one we have just drawn? Why?



As you trace around the box, focus on the lines being straight rather than curved (discussed when tracing around a circle in Week 4).





At the end of the day ask the learners to bring square-shaped objects from home for Day 2.

Pass the square attribute blocks around the class for learners to feel and explore the properties.

- What do you feel around the edge of the objects?
- ★ What do the sides look like? And the corners?
- ★ What else can you see and feel on your square?
- ★ How is this different to the circle shapes we looked at last week?
- 6. **Small group activities:** Describe the activities at the four workstations. Remind learners about the tidy-up process.

Day 2

What you need

- Rhyme: Five happy tortoises (page 99)
- Square-shaped objects brought from home
- 1 large square and 1 circleshaped cardboard cut-out
- 1. **Rhyme:** Say the rhyme, Five happy tortoises.
- 2. **Oral counting:** Learners blink their eyes slowly and count from 1 to 5. Repeat, blinking faster.
- 3. Counting objects 1–5: Place square-shaped objects, for example, book, box, lid or block on the mat. Ask five learners each to fetch an object and stand in front. Count from 1 to 5 together. Learners describe their object and count the corners, the sides and the edges.

Guiding questions:

- ★ What makes these objects square?
- ★ _____ fetch another square-shaped object.
- ★ What is the same about the object _____ is holding and the one that _____ is holding?
- Can you think of anything else you could have brought from home that is square-shaped?
- 4. **Compare squares and circles:** Place the large cardboard squares and circles on the wall. Ask the learners what the shapes are called. Ask learners to 'walk' a circle, then a square. Ask learners to draw a square and a circle in the air. Discuss the differences and similarities between the square and the circle.

Guiding questions:

- ★ What is different about these two shapes?
- ★ Which one has straight lines? (Count these.)
- ★ Which one has a curved line?
- ★ Which one has corners? (Count these.)
- 5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.



Be prepared to provide extra squareshaped objects, for example, tiles, mosaics, lids, blocks, mirrors, Lego, Duplo and so on.

Day 3

What you need

- Rhyme: Five happy tortoises (page 99)
- Poster Book, Poster 8
- 5 pictures of squares of any size and any colour
- 1. **Rhyme:** Say the rhyme, *Five happy tortoises*, adding actions.
- 2. Oral counting: Learners move slowly and count from 1 to 5.
- 3. **Counting objects 1–5:** Put up five pictures of squares around the classroom. Learners take turns to find the pictures of squares. Learners discuss whether they agree that the pictures the learners have found are of squares, and they explain why.
- 4. Problem solving: Talk about Poster 8.



Guiding questions:

- ★ What do you see in this picture? What are the people doing?
- Can you see any squares? (Count these.)
- ★ How do we know that these are squares?
- Can you see any circles?
- Are there more squares or more circles? How do you know? (Count them.)
- ★ How many cars are waiting for the traffic officer to say they can go?
- ★ How many motorbikes are there?
- ★ If the white car drives away (cover this car in the picture), how many will be left? (Count the cars together.)
- ★ How many people do you see inside the small yellow car?
- ★ Which has more people in it: the small yellow car or the taxi?
- ★ How many people do you see on the pavement?
- Can you see any people inside the buildings?
- 5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 4



What you need

- Rhyme: Five happy tortoises (page 99)
- A big toy car
- 1. **Rhyme:** Say the rhyme, *Five happy tortoises*, with actions.
- 2. **Oral counting:** Learners shrug their shoulders and count from 1 to 5.
- 3. **Counting objects 1–5:** Ask three learners to stand in front. Ask how many learners there will be if another one is added. Another learner stands in front. Count together. Repeat until there are five learners in front.
- 4. **Introducing 'forwards' and 'backwards':** Learners move slowly like a tortoise forwards and backwards in different ways, for example, they walk forwards and then crawl backwards, crawl forwards and then jump backwards. Point out the difference between 'walking backwards' and 'walking back towards'.
 - Move a big toy car forwards and backwards in different ways. Ask learners to explain whether you are moving the car forwards or backwards. Say the words 'forwards' and 'backwards' together as you do this. Give a few learners turns to move the car forwards and backwards and say how they are moving it.
- 5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 5

What you need

- Rhyme: Five happy tortoises (page 99)
- 5 pages with a red square
- 30 objects from around the classroom
- 5 pages with a blue square
- 1. **Rhyme:** Say the rhyme, *Five happy tortoises*, with actions.
- 2. **Oral counting:** Learners march forwards counting from 1 to 5. Repeat, with learners marching backwards.
- 3. **Counting objects 1–5:** Place the objects from around the classroom on the mat. Together count from 1 to 5 as a learner takes out five objects. Repeat as other learners make groups of five objects.
- 4. Reinforcing the square using pattern: Show learners a page with a red square.

Guiding questions:

- ★ What is the shape on this page called?
- ★ What colour is the shape?



- Can you see anything else in the classroom that reminds you of a square?
- Can you see anything else that is the same colour? Repeat with the blue square.

Give two learners a red square each, and two learners a blue square each. Arrange them into a red, blue, red, blue pattern so that others can see their shapes. Learners say the colours together as you point.

- What can you tell me about the way the squares are arranged?
- What comes after the first red square? What comes next?
- Should I add a red square or a blue square to the end of this pattern?
- ★ Why do you think that?

Give six other learners pages with red or blue squares and ask them to stand so that they can make a longer pattern.

5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Integration

Home Language and Life Skills:

- Discussing pictures, vocabulary development (shapes).
- Outside play: Provide a variety of large cardboard packaging boxes for the learners to play in and explore with. They can build with these as part of fantasy play.
- Outside play: Shape hopping use masking tape or chalk to draw a square on the ground and play a hopping or musical squares game.

Small group activities

Teacher-quided activity

What you need

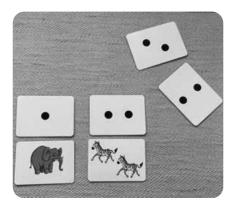
- For each learner, a tub with:
 - 3 animal counters (1 of one) kind and 2 of another)
 - Number dot, word and symbol
 A koki cards 1 and 2
 - 2 picture cards of animals that match the selected counters
- A feely bag with balls and boxes
- 1 large square cardboard box
- Large sheets of paper
- 1. **Oral counting:** Learners tap the floor moving their hands forwards as they count from 1 to 5. Repeat, with learners moving their hands backwards.
- 2. **Counting objects 1–5:** Learners face each other in pairs and match one hand with their partner's. They touch each matching finger and thumb, counting from 1 to 5 as they do so. Learners repeat with the other hand.

3. Matching dot cards 1 and 2:

Show the 1 and 2 dot cards (from the Resource Kit) and place them on the mat. Show the elephant and zebra pictures. Learners match the elephant to the 1 dot card, and the zebras to the 2 dot card.

Guiding questions:

Can you match the zebras to another card?



Learners take out their dot cards and put them face down on the mat. They turn over any card and take turns to say what number their dot card represents. They match the correct number of animal counters to the card. Repeat with another dot card.

- ★ Which animal do you have one of?
- ★ Which animal do you have two of?
- ★ How many animals do you have altogether? (Count them.)

Learners match their picture cards to their dot cards. They match their number symbol and number word cards to their picture cards.

- 4. **Reinforcing boxes and balls:** Explain to the group how to use the feely bag. Without looking at it, a learner feels for an object inside the bag and describes what it feels like. The other learners says what they think it is. The learner takes the object out of the bag and learners look at it together, discussing all the properties. Encourage learners to use vocabulary such as: sides, smooth, round, sharp corners and straight sides.
- 5. Exploring the properties of a box 3-D activity: Learners explore the inside and outside of a large cardboard box. They climb inside the box and then stand outside the box, walk around it tracing the edges with their hands, touch the corners and turn the box over. Count the sides of the box together.
- 6. Exploring the square 2-D activity: On a large sheet of paper, trace around one of the faces of a big box.

Guiding questions:

- ★ What do you think this shape will look like?
- ★ How do you know it is a square?
- ★ Could we trace around another side of this box if we want to make another square?
- ★ How many lines does the square have? Tell me about them.



Draw a face on each side of the box to assist learners in counting the sides.



Observe the learners' progress across other Grade R Mathematics Content Areas that have been covered in previous weeks.

Check that learners are able to:

- recognise, name and describe a square
- identify properties of a box and a square shape
- follow instructions to move forwards and backwards
- follow instructions related to inside and outside
- match objects to dot, picture and number symbol cards



Prepare squares for those learners who struggle with tracing.

Workstation 1

What you need

- Playdough
- Playdough boards for each learner
- Rollers and dough cutters (square and circle)

Learners make playdough shapes using circle- and square-shaped dough cutters. They use these shapes to make models of their choice.

Workstation 2

What you need

Coloured paper

- Plain paper for each learner
- Scissors and glue
- Cubes or blocks

Learners trace around cubes or blocks to draw a square. They cut out the squares of different sizes and colours. They paste them onto plain paper to make a picture.

Workstation 3 (This is a group activity.)

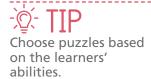
What you need

- For each learner: square- and circle-shaped everyday objects
- A large piece of paper with a circle drawn on it
- A large piece of paper with a square drawn on it

Learners sort the objects into two groups – square objects and circular objects. They place the objects on the piece of paper with the matching shape.



Workstation 4



What you need

• A six-piece puzzle for each learner (see page 112)

Learners build puzzles with a minimum of six puzzle pieces.

Content Area Focus: Patterns, Functions and Algebra

Topics

Geometric patterns

New knowledge

- Identify patterns
- Copy patterns
- Number 3
- Sequencing numbers 1–3

Practise

- Oral counting 1–5
- Counting objects 1–5
- Reinforce number concepts 1 and 2
- Problem solving using objects

New maths vocabulary

same as not the same as

different pattern copy repeat next beginning end

Getting ready

For the activities this week, you will need to prepare the following:

- a number frieze for number 3 (page 105)
- a set of number symbol, word and dot cards 1–3
- 3 big red paper circles, 3 big blue paper circles and 3 small blue paper circles
- collection of everyday objects to be used to make groups, for example, buttons, matchboxes, same-sized candles, crayons, bottle tops, plastic cups, spoons
- picture cards, dot cards and number symbol cards for 3 (1 set per learner in a group)
- set of 3 circle-shaped and 3 square-shaped stamps made out of sponge, wood or cork (1 set per learner in a group)
- 10 pattern strips made with the stamps
- sheets of paper with space for the learners to fingerprint a worm's body (see page 59)
- 10 pattern cards using sticks and counters from the *Resource Kit* (the items can be repeated in 1–3 number range)
- playdough template: Number 3 (page 108).

∵Ö: TIP

Remember to use the toilet routine to practise ordinal numbers: first, second, third; position: in front of, behind, between, tallest, shortest.

Whole class activities

Day 1

What you need

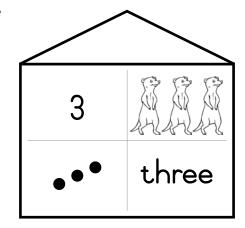
- Rhyme: Five happy tortoises (page 99)
- Number friezes 1–3
- Numbers 1, 2 and 3 symbol, word and dot cards
- Number 3 story (page 100)
- 3 paper plates or paper circles of the same size (on the maths table)
- 1. **Rhyme:** Say the rhyme, *Five happy tortoises* from Week 5.
- 2. **Oral counting:** Learners clap hands as they count from 1 to 5. Drum a beat on a box or table top. Tap alternate soft and loud beats. Learners count softly and loudly.

Guiding question:

- ★ What pattern do you hear?
- 3. **Counting objects 1–5:** Ask learners to show one, two or three objects in the class. All count as they point.
- 4. **Introducing number '3':** Point to 'Number 1' and 'Number 2' friezes. **Guiding questions:**
 - ★ Who lives in the first house? (Point to this.)
 - ★ How many elephants live there? Who lives in the next house?
 - ★ How many zebras live there?
 - ★ Are there more zebras or more elephants? How many more?
 - ★ How many animals do you think will live in the next house?
 - ★ Will there be more or less than two?
- 5. **Introducing number '3':** Tell the *Number 3 story* and talk about the 'Number 3' frieze.

Guiding questions:

- Who has seen a meerkat before? Where do meerkats live?
- How many more meerkats are there than zebras?
- ★ What is the difference between the elephant's house and the meerkats' house?



- ★ How many fewer animals are there in the elephant's house than in the meerkats' house?
- ★ If one meerkat went to the zebras' house, how many animals would be in the zebras' house? And in the meerkats' house?
- 6. **Matching number cards to frieze number 3:** Give learners one number symbol, dot and word card for 1, 2 and 3. Learners take turns to match their cards to each frieze.

Guiding questions:

- ★ What does _____ have in her hand?
- ★ Which house does it match? Why?
- ★ Who is holding the dot card with the most dots? And the least dots?
 Tell learners that the one with the least dots should go first.
- ★ Which learner should put their card up first?
- ★ Who should be next? Why?
- 7. **Look for 3 objects:** Learners get into groups of three. They go outside and look for three things to bring inside. Back in the classroom each group shows what they have found.

Guiding question:

★ Who also found _____? Let us count them.

Learners put groups of three objects on the maths table and match number symbol and word cards.

8. **Small group activities:** Describe the activities at the four workstations. Remind learners about the tidy-up process.

Day 2

What you need

- Song: I have a little wheelbarrow (page 100)
 1 additional small blue paper circles
- 3 big red paper circles and 2 small blue paper circles
- 1. **Song:** Sing the song, *I have a little wheelbarrow*. Ask learners to listen for how many spades of sand are put into the wheelbarrow. Sing the song together with actions.
- 2. **Oral counting:** Learners choose which body parts they want to use as they count from 1 to 5, as on Day 1. Ask different learners for their suggestions of which body parts to use.
- 3. **Counting objects 1–5:** Count from 1 to 5 together as five learners come to the front and take a shape. Learners hold the shape facing the class. **Guiding questions:**
 - ★ How many shapes can we see?
 - ★ How many shapes is each learner holding?
 - ★ What is the same about the shapes?
 - ★ What is the difference between them?
 - Can you make a group of blue circles and a group of red circles?
 - ★ Which group has more circles? And fewer circles?
 - What do we need to do so that each group has the same number of circles?



Remind learners that they can explore the maths table and change objects later in the day.



Keep the sequences short and simple and focus on either the sizes or colours of the circles. 4. **Exploring pattern:** Give another learner the remaining small blue circle. Ask learners with blue circles to remain standing and those with red circles to place them on the mat. Give three learners the three big blue circles. Arrange the learners in a line with their circles so that they make a pattern: small, big, small, big. Ask the class what size circle should come next. Repeat until all the learners are standing in the line with their circle.



Guiding questions:

- Can you see a pattern? Tell me about it.
- ★ Where does the pattern start?
- ★ What size circle is at the beginning? What size circle comes next?
- ★ If we added another circle to the end of the pattern, what size would it have to be? And next?
- 5. **Identifying patterns in the classroom:** Ask learners to look for patterns on their clothing and/or in the classroom and to describe the patterns.

Guiding question:

- ★ What pattern do you see? Why do you think it is a pattern?
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 3

What you need

- Song: *I have a little wheelbarrow* 3 red paper circles and 3 blue (page 100) paper circles all the same size
- Poster Book, Poster 7
- 1. **Song:** Sing the song, *I have a little wheelbarrow*, with actions.
- 2. **Oral counting:** Count from 1 to 5. Clap, stamp, clap, stamp, clap.
- 3. **Counting objects 1–5:** Identify patterns in Poster 7. Identify and count objects 1–5.

4. **Problem solving 1–3:** Talk about Poster 7.

Guiding questions:

- ★ What time of day do you think it is? Why?
- ★ What do you think Dad will buy next? How many?
- * How many pineapples are there? How many would be left if we bought one?
- 5. **Reinforcing pattern:** Three learners hold the three red circles. Ask how many learners you need to hold the blue circles. Learners make two groups, one holding red and one holding blue circles. Arrange learners so that they are holding circles as follows: blue, red, blue, red, and say the colour names.

Guiding questions:

- ★ Tell me about the pattern.
- ★ What colour did we start with? What came next?

Ask learners if it is possible to hear patterns or whether they can only be seen. Make a body sound pattern, making each sound twice, for example, clap, clap, stamp, stamp, clap, clap, stamp. Repeat this pattern a few times.

Guiding questions:

- ★ What did you hear?
- ★ How many times did I clap? (Clap and count together.)
- ★ How many times did I stamp? (Stamp and count together.)
- ★ What did I do next?
- ★ What were the first two sounds?
- ★ What came after that?
- ★ What were the two sounds that we repeated?
- ★ What pattern did I make?
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 4

What you need

- Song: I have a little wheelbarrow (page 100)
 Animal counters
 1–5 numbers on the washing line
- 1. **Song:** Sing *I have a little wheelbarrow*, with actions.
- 2. **Oral counting:** Learners choose which body parts they want to use as they count from 1 to 5, as on Day 1. Ask different learners for their suggestions of which body parts to use.
- 3. **Counting objects 1–5:** Learners choose five duck and five chicken counters and count them.



Let some learners make a short body sound pattern that other learners can copy. They may need guidance. For example, ask, 'Which sound do you want at the beginning?', 'Which sound do you want to make next?' and so on.

4. Reinforcing pattern: Ten learners stand at the front, each holding a duck or chicken counter. Each learner says what kind of farm animal they have. Ask them to arrange themselves into two groups: one with chickens and the other with ducks. Ask what is the same about the animals the learners are holding in their groups, and what is different. Ask how you can arrange the learners to make a pattern using the animals. Together with the class, arrange learners to stand in a line to create a pattern. Ask the class who to call next. Say the name of the animals in the pattern, for example, duck, chicken, duck, chicken, duck, chicken.

Guiding questions:

- ★ What animal do we put next to carry on this pattern?
- ★ Can we make a different pattern using the animals the learners are holding? (for example, duck, duck, chicken, duck, duck, chicken) Complete the pattern together.
- 5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 5

What you need

- Song: I have a little wheelbarrow 2 hula hoops (page 100)
 - Counters (Resource Kit)
- 2 number '3' dot and number symbol cards
- 1. **Song:** Sing I have a little wheelbarrow.
- 2. **Oral counting:** Learners choose which body parts they want to use as they count from 1 to 5. Ask different learners for their suggestions of which body parts to use.
- 3. **Counting 1–5:** Together count a group of five learners to stand at the front to do the actions for the song. Sing the song a few times, with the learners in the front doing the actions.
- 4. **Problem solving 1–3:** Put two hula hoops next to each other in the middle of the mat. Ask two learners to stand in each hula hoop.

Guiding questions:

- How many learners are in the hula hoops?
- ★ What do I need to do to make one group more than the other? Add another learner to one of the hula hoop groups.
- * Are the groups the same or are they different? How are they different?
- ★ How many more does this group have? (Point to the group with three learners.)

Focus on practising 1, 2 and 3 by placing objects in the hula hoop that fall within this range.

Count how many learners there are in each group.

★ What do we need to do to make the group of two the same as the group of three?

Add another learner to the group of two. Count each group. Two learners fetch the dot cards from the maths table that match each group. Two learners fetch the number symbol cards that match the groups.

Two learners from the one group and one from the other group sit with the rest of the class. Count the number of learners left in each group.

- ★ Do these number cards still match the groups?
- ★ What must we do to match the cards?
- 5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Small group activities

Teacher-guided activity

What you need

- For each learner, a tub with:
 - Number symbol cards 1–3
 - Dot cards 1-3
 - 10 fruit counters (Resource Kit)
 - 6 coloured sticks
- Dot cards (Resource Kit)
- Paper plates or small plastic yoghurt containers – 2 per learner (OR A4 sheets of paper with 2 circles on each – 1 per learner)
- A length of string
- 1. Counting 5 objects: Give each learner a tub. Learners each count out five fruit counters.
- 2. Dot cards 1–3: Show dot cards for 1 and 2. Show one '3' dot card and ask, 'How many dots?' Ask learners to place counters in the same arrangement. Ask if they can arrange the counters another way. Repeat for different '3' dot card arrangements.
- 3. Matching dot cards and counters 1-3: Learners use the fruit counters to count and match to each of the dot cards.

Guiding questions:

- ★ How many fruit counters do you need to match the first dot card?
- * How many more will you need for the next dot card?
- 4. Matching dot cards and number symbol cards 1–3: Learners keep their fruit counters and dot cards in order in front of them. Place a set of



number symbol cards 1, 2 and 3 in front of them. Ask them if they can remember which animals from the number stories go with each number card. Point to each card and ask learners to say the numbers. Learners discuss which number symbol and word cards match their dot cards. They match the number symbol cards from their tubs to their counters and dot cards.

5. **Reinforcing pattern:** Make a simple pattern with fruit counters, for example, banana, berries, banana, berries. The learners say the names of the fruit in the order in which they appear.

Guiding questions:

- How do you know if this is a pattern?
- ★ Which fruit do you see at the beginning of the pattern?
- ★ Which fruit do you see next?
- 6. **Copying a pattern:** Make another pattern using the fruit. Ask learners to copy the pattern with their counters.
- 7. **Making groups the same 1–3:** Put a piece of string down the middle of the mat. Ask one learner to stand on each side.

Guiding questions:

- ★ How many learners are on this side? And on the other side?
- ★ How are both sides the same?

Add another learner to one side. Discuss the difference between the two sides.

- ★ What do we need to do to make both sides the same? Add two learners to one of the sides.
- * Tell me what to do to make both sides the same.
- 8. **Problem solving using objects:** Give each learner two small yoghurt containers and six sticks. Ask them to place the sticks in the containers so that both containers have the same number of sticks. Ask what 'the same' means. Give each learner a turn to count the objects in each container to check if they are the same.

Integration

Home Language and Life Skills: visual literacy (patterns in pictures); patterns in songs and rhythms.



Check that learners are able to:

- recognise, match and name number symbols, number words and dot cards 1–3
- match objects with dot cards 1–3
- identify patterns
- copy patterns



Learners can group their fruit counters 1, 2 and 3 in any way. The focus is on having the correct number of counters. Learners will see that three objects can be grouped in any way and they remain three objects.



Use two pattern strips if the group is large so that they can all see. Once the pattern strip paint has dried, paste the drawings on the pages with the borders.



Workstation 1

What you need

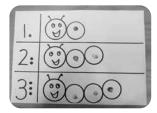
- Pattern strips
- Sponge, wood or cork stamps
- 1 piece of A4 paper per learner
- 1 piece of A5 paper per learner
- Paint in polystyrene trays
- Crayons

Learners use the stamps to copy a pattern to make a border on the A4 paper. Place a pattern strip in the middle of the table for them to copy. On the A5 paper, they draw a picture with any three objects they like.

Workstation 2

What you need

- Paint
- 1 worm counting page per learner
- 1 piece of A4 paper per learner
- A basin with water
- A towel



Learners dip their finger into the paint and make the correct number of fingerprints – 1, 2 or 3 – to form the body of each worm on their worm counting page.

When they have finished the worm, they use finger paint to make their own images representing three things.

Workstation 3

What you need

- Paper and crayons
- Pattern cards (representing counters and stick patterns)
- Counters and sticks from the Resource Kit – enough for each learner to copy the pattern cards

Learners choose a pattern card. They copy the pattern using the counters and sticks.

Workstation 4

What you need

Playdough

 Playdough template: Number 3 per learner (page 108)

Learners form the playdough and place it in the correct positions on the playdough template. They should use playdough to form the number '3', to roll three balls of playdough to place on the tree, and to roll three balls of playdough to place in the grid.

Content Area Focus: Space and Shape (Geometry)

Topics

- Recognise, identify and name 2-D shapes: triangle
- Compare 3-D objects and 2-D shapes
- Sort 2-D shapes
- Figure ground
- Symmetry

New knowledge

- Oral counting 1–10
- 2-D shapes: triangle
- Figure ground
- Position: in front of and behind

Practise

- Circle, square
- Counting objects 1–5
- Reinforce number concepts 1–3
- Sequencing numbers 1–3
- Symmetry
- Big, small
- Sorting by shape
- Six-piece puzzles

New maths vocabulary

triangle corner points

smooth in front of

behind smaller bigger

Getting ready



For the activities this week, you will need to prepare the following:

- 3 different-sized paper bag puppets (make sure the sizes are clearly differentiated: big, bigger, biggest)
- 3 tins as stands for the puppets
- make 1 big and 1 small post box
- small (all same size) and big (all same size) paper triangles made from newspaper, magazines or plain paper



- triangle, circle, square and rectangle cardboard cut-outs of different sizes and colours
- a copy of the A4 page with triangles (page 111) per learner in a group
- small circle, square and triangle cut-outs of coloured paper for each learner
- make six-piece puzzles if you don't have any (page 112)
- paint a number track 1–10 outdoors.





Whole class activities

Day 1

What you need

- Song: This is a triangle (page 100) Large cardboard circle, square
- Number friezes 1-3
- 3 square, 4 circle and 5 triangle attribute blocks (*Resource Kit*)
- Large cardboard circle, square and triangle
- A large piece of paper
- A koki
- 1. **Song:** Introduce the song, *This is a triangle*. Show a picture of a triangle and point to the corners and sides as learners sing. Learners raise their arms above their heads and join their fingertips to form a triangle shape.
- 2. **Oral counting 1–10:** Learners hop or jump along the number track outside while counting from 1 to 10.
- 3. **Practising 1–3 with the number friezes:** Point to the number friezes. **Guiding questions:**
 - ★ Which animal is there only one of?
 - ★ Which house has the most animals?
 - ★ Are there more zebras or more meerkats?
 - ★ If a zebra friend came to visit the two zebras, how many zebras would there be in their house?
 - ★ If one meerkat moved in with the elephant, how many meerkats would be left in the meerkats' house?
- 4. **Counting objects 1–5:** Place the square, circle and triangle attribute blocks on the mat. Together count the squares and place these in a group. Do the same for the circles and triangles.

Guiding questions:

- ★ Which group has the most shapes?
- Which group has the least shapes?
- ★ How can we make sure?
- 5. **Introducing triangles:** Point to the circle and square attribute blocks. Ask if learners remember the names of these shapes. Hold up a triangle. **Guiding questions:**
 - ▼ Does anyone know what this shape is called?
 - ★ Can anyone see a shape like this anywhere else in the classroom? Hold up the large cardboard triangle.
 - ★ How many sides does this shape have? (Count these.)
 - ★ How many corners does it have? (Count these.)

- 6. **Exploring triangles:** Trace around the cardboard triangle onto a large piece of paper.
 - Guiding questions:
 - What is the shape on the paper called?
 - Is this shape the same as the ones on the mat?

Tell me about the triangle we have drawn.

- ★ How many lines does it have?
- What can you tell me about the lines?

Hand out triangles from the *Resource Kit*. In pairs, learners explore the triangle, feeling the straight sides and touching the points.

- ★ How many sides are there? How many corners?
- ★ What do they feel like?
- 7. **Small group activities:** Describe the activities at the four workstations. Remind learners about the tidy-up process.

Day 2

What you need

- Rhyme: Hear me count (page 100) A large cardboard circle, square
- Tambourine
- 10 triangle attribute blocks (Resource Kit)
- A large cardboard circle, square and triangle attached to the wall behind the maths table
- Plate
- Song: This is a triangle (page 100) Poster Book, Poster 8

1. **Rhyme:** Introduce the rhyme, *Hear me count*.

- 2. **Oral counting 1–10:** Learners stamp and count to the beat from 1 to 10 as you play the tambourine.
- 3. **Counting objects 1–5:** Put 10 triangle attribute blocks on the maths table. Together count five learners to come to the front. Ask how many triangles you will need for each learner to hold one. Ask another learner to give each learner who is in the front one triangle.

Guiding questions:

- How many learners gave out the triangles?
- ★ How many learners are holding a triangle?
- ★ If one learner gives me their triangle (one learner sits down), how many triangles are left? (Count together.)

Repeat until all the learners are sitting down. Each time ask how many learners/triangles are left.



Encourage learners to jump on the number ladder from 1 to 10 during outside play.

- 4. **Identifying triangles:** Point to the large triangle on the wall. **Guiding questions:**
 - ★ What do you remember about the triangle? What makes it a triangle?
 - ★ How many corners does it have? How many sides? How many lines? Sing This is a triangle.
- 5. **Comparing shapes:** Point to the large circle, square and triangle. **Guiding questions:**
 - Which shape has straight lines like the triangle?
 - ★ How many sides does the triangle have? And the square?
 - Which shape has more sides, the square or the triangle?
 - ★ How is the circle different to the square? And the triangle?
- 6. **Solving problems 1–5:** Talk about Poster 8. Learners look for triangle shapes in the picture.

Guiding questions:

- Can you see any triangles? Show me where they are.
- ★ What other shapes can you see?
- ★ (Point to a square or circle shape.) Is this shape a triangle? Why/why not?
- ★ How many scoops of ice cream does the girl have?
- ★ How many scoops will she have left if she eats one scoop?
- ★ What time of the day do you think it is? How do you know?
- 7. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 3

What you need

- Rhyme: Hear me count (page 100) Number 1–3 dot, animal and
- Tambourine
- symbol cards
- Skipping rope
- 1. **Rhyme:** Say the rhyme, *Hear me count*, with actions.
- 2. Oral counting 1–10: Jump slowly while counting from 1 to 10 to the rhythm of the tambourine.
- 3. Counting objects 1–5: Count five learners to say the rhyme, Hear me count, together. Repeat with five other learners.
- 4. **Practising numbers 1–3:** Show number 1–3 dot, animal and symbol cards. Ask learners to fetch the number of objects represented on the card from the maths table.

5. **Exploring position:** Put learners into twos. Give each learner a number 'one' or 'two'.

Guiding instructions:

- One stand behind two.
- One stand next to two.
- Two stand in front of one.
- 6. **Exploring symmetry:** A learner stands facing the class. Hold the skipping rope so that it hangs in front of the learner, down their midline. **Guiding questions:**
 - ★ How many eyes/ears/feet does have on one side of her/his body? And the other side?
 - ★ Where on her/his body do you see only one body part?
 - ★ What happens to her/his nose when the skipping rope hangs down the middle of the front of her/his body?
- 7. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 4

What you need

- Rhyme: Hear me count (page 100) 3 different-sized puppets
- Tambourine
- A collection of 3 classroom objects Big and small paper triangles for
- Number 1-3 picture, dot and symbol cards
- 3 tins as stands for the puppets
- each learner
- A big and a small post box
- 1. **Rhyme:** Say the rhyme, *Hear me count*, with actions.
- 2. Oral counting 1–10: Learners swing their hips counting from 1 to 10 to the rhythm of the tambourine.
- 3. Counting objects 1–5: Together count five different learners from Day 3 to say the rhyme, *Hear me count*. Repeat with five other learners.
- 4. Exploring big and small: Display the puppets on the tin stands.

Guiding questions:

- ★ Which one is the biggest/smallest? How do you know?
- ★ Is this one bigger than this one?
- ★ What makes it bigger/smaller?

Give three learners each a puppet. Ask them to stand in front holding the puppets from biggest to smallest. Repeat with three different learners. Muddle the order of the puppets and ask them to arrange themselves from smallest to biggest. Ask the class to point to the smallest, biggest, and so on.

Explain the body parts that you have two of that are found on both sides of the body.



- 5. **Sorting big and small:** Show learners the post boxes. **Guiding question:**
 - ★ Which box is bigger? Which box is smaller?
 Give learners a big or a small triangle. They post big triangles into the big post box and small triangles into the small post box.
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 5

What you need

- Rhyme: Hear me count (page 100) Number 1–3 picture, dot and
 - symbol cards
- 5 classroom objects
- Beanbags
- 1. **Rhyme; counting 1–10:** Say *Hear me count*, with actions.
- 2. **Oral counting 1–10:** Learners stand in a circle and count from 1 to 10. They jump forwards and backwards on each count and jump high on 10.
- 3. **Counting objects 1–5:** Learners show the number of fingers as you say, 'I wish I had two sweets, four sweets,' and so on, for one to five.
- 4. **Exploring symmetry:** Learners stand in a circle. Say, 'Touch your ears, eyes, shoulders, knees.' Ask, 'How many feet, hands, chins, noses, tummies do you have?'
- 5. **Practising position:** Give each learner a beanbag or object to hold. Stand with your back to the learners and do the actions with them.

Guiding instructions:

- ♣ Put the beanbag on this side of your body. And on the other side. (Do the action.)
- Put the beanbag in front of your body. And behind your body.
- Put it next to your feet. And on top of your feet.



6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Integration

Home Language and Life Skills:

- Vocabulary development (prepositions).
- Tell stories to reinforce small, smaller, smallest; big, bigger, biggest.
- The learners move through a simple obstacle course. Focus on directions, for example, over, under, behind, on top of.

Small group activities

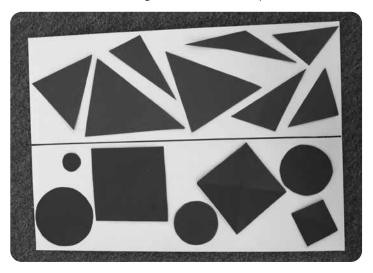
Teacher-guided activity

What you need

- Pile of Unifix blocks for each learner
- Circle, square and triangle attribute blocks (more triangles than other shapes)
- Triangle, circle, square, rectangle cut-outs
- 1. Counting 1–10: Learners show their fingers as they count from 1 to 10.
- 2. **Counting objects 1–5:** Give learners a pile of Unifix blocks. Ask them to build a tower of five blocks.
- 3. **Reinforcing the triangle:** Ask learners to show you a circle, square and triangle shape.

Guiding questions:

- ★ What shape is that? (circle, square, triangle) How do you know?
- ★ What can you tell me about the shape?
- 4. **Sorting shapes:** Learners make two groups of shapes with the attribute blocks: triangles and other shapes.



Guiding questions:

- ★ Why did you put this in this group?
- ★ How can we check if this is a triangle?
- ★ Which group has more/fewer shapes?
- ★ Which group has the most/the least shapes?



Check that learners are able to:

- count orally 1-10
- count 5 objects
- recognise and name triangles and describe the properties
- sort 2-D shapes into triangles and other shapes

Workstation 1

What you need

- A copy of the A4 page with triangles (page 111) per learner
- 1 blank A4 page per learner
- Scissors, crayons and glue

Learners cut along the lines to make four triangles. They decorate their triangles and glue them onto a page in a way that makes a single big triangle, as in the original.



Workstation 2



What you need

• A4 paper folded in half

Paint

Learners put dots of paint on one half of the page. They fold the page in half so that the paint prints on the other half.

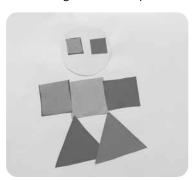
Workstation 3



What you need

- Paper and glue
- Small coloured paper circles, squares, triangles
- 1 blank A4 page per learner

Learners glue the shapes onto a sheet of paper to make a shape person.



Workstation 4

What you need

• Shape puzzles, minimum six pieces, for each learner

Learners complete shape puzzles.

Content Area Focus: Measurement

Topics

- Time: day and night
- Height
- Compare and order objects to describe length

New knowledge

- Sequencing time: day and night, light and dark
- Length: height chart
- Position: on, under, on top, below, next to, between
- Counting backwards 5–1

Practise

- Oral counting 1–10
- Sequencing numbers 1–3
- Counting objects 1-5
- Reinforce 1–3

New maths vocabulary

on top	under	between	morning	dark	tallest
below	underneath	day	evening	taller	shortest
on	next to	night	light	shorter	

Getting ready

-ŵ- TIP

Remember to use the toilet routine to practise ordinal numbers and position.

For the activities this week, you will need to prepare the following:

- 1 large sun and 1 large moon cut-out
- 5 large (A4 size) cloud, star, moon and sun cut-outs
- 3 lamp and 2 candle cut-outs
- a variety of household objects to represent day and night activities, for example, toothbrush, hairbrush, breakfast bowl and spoon, picture story book, torch, candle, light switch, pillow
- picture cards of these objects
- a table and enough blankets to cover it completely
- 5 night pictures and 5 day pictures (for example, looking at stars, lighting a candle, sleeping in bed, street light, putting pyjamas on; playing soccer, arriving at school, swimming on a sunny day, braaiing outdoors, feeding a pet)
- day and night pockets that the story pictures can fit into (see page 76)
- a day and night page per learner in the group (see page 77)
- 1 A4 page per learner with circles of different sizes and colours
- 5 sets of 5 day/night matching puzzle pictures (made from magazines or drawn).

Whole class activities

Day 1

What you need

- Song: The sun is in the sky (page 100)
- 1 sun and 1 moon cut-out
- A length of string per learner
- 1. **Song:** Introduce the song, *The sun is in the sky*. Use the sun and moon cut-outs.
- 2. **Oral counting 1–10:** Learners count from 1 to 10 as they jump. They clap and count backwards from 5 to 1 as you point to the number washing line.
- 3. Day and night: Discuss day and night.

Guiding questions:

- ★ What did you do last night?
- ★ Could you have done this in the day? Why not?
- ★ What do you do in the morning when you wake up?
- ★ What do you do in the evening before it gets dark?
- ★ Have you ever seen the moon?
- ★ What do you do during the day?
- ★ What do you do at night?
- 4. **Measuring:** Guide learners to discuss different ways of measuring things.

Guiding questions:

- ★ If we wanted to know who was the tallest between _____ and ____, what could we do?
- ★ What could we do to measure people and/or things?
- ★ Have you ever seen anybody measuring anything before? How did they do it?
- 5. **Measurement:** Call a group of learners to stand one next to the other in front of the class.

Guiding questions:

- ★ Who is the tallest in this group? How do you know?
- ★ Who is the shortest in this group? How do you know?
- ★ Is anyone the same height? How do you know?
- ★ How can we find out?

Learners stand back to back to compare height.

★ Is there another way we could measure the height of each learner? The group of learners stand with their backs against the wall. Draw a line with chalk above their heads. Write each learner's name on the line. Cut individual lengths of string for each learner according to their height. Attach the string to each

learner's name as they are measured. Ask one learner to come and point to the name of the shortest person in the group, and one to point to the name of the tallest person in the group. Discuss whether learners think that someone else in the class will be taller than/shorter than the learners in this group.



6. **Small group activities:** Describe the activities at the four workstations. Remind learners about the tidy-up process.

Day 2

What you need

- Song: The sun is in the sky (page 100)
- Number 1, 2 and 3 symbol, word,
 1 moon and 1 sun cut-out dot and picture cards
- **Tambourine**

- 5 large star cut-outs and 5 large cloud cut-outs
- String lengths for one group for the height chart
- 1. **Song:** Sing the song, *The sun is in the sky*, with actions.
- 2. Oral counting 1–10: Learners count forwards from 1 to 10. Point to the number washing line as learners count backwards from 5 to 1 to the beat of a tambourine.
- 3. Counting objects 1–5: Place five clouds and five star cut-outs on the walls around the classroom. Ask learners to find the clouds and put them on the wall in the maths area. Ask other learners to find the stars and put them on the wall. Together, count the clouds and stars as the learners find them.

Guiding questions:

- ★ Do we see clouds in the sky in the daytime or the night-time?
- ★ Do we see stars in the sky in the daytime or the night-time?
- ★ How many stars have been collected so far? And clouds?
- 4. Practising numbers 1–3: Put number symbol cards 1, 2 and 3 on the wall below the number friezes. Place dot cards, picture cards and number word cards for 1, 2 and 3 in a box. Learners take turns to reach into the box without looking and take one card. They attach the card to the wall next to either 1, 2 or 3.

Guiding question:

★ Is this card in the right place? How do we know?

Ask three learners to put one moon or sun next to number symbol 1, two stars next to number symbol 2 and three clouds next to number symbol 3.

5. Day and night: Discuss day and night with learners.

Guiding questions:

- ★ Was it light or dark when you woke up this morning?
- ★ What do you do first when you wake up: eat, wash, dress?
- ★ What do you do next?
- Was it light or dark when you got home after school yesterday?
- ★ What did you do when you got home?
- ★ What did you do after that?
- ⋆ Do you prefer daytime or night-time? Why?
- ★ What do you enjoy doing most at night?
- ★ What do you like the most about the daytime?
- ★ What will you do after school today?
- 6. **Measurement:** Look at the height chart. Measure another group of learners. The class estimates who in this group will be shorter or taller than the learners measured yesterday.

Guiding questions:

- ★ Who do you think will be the tallest today?
- ★ Who do you think will be the shortest today?
- ★ Why do you say that?

Stand learners back to back to check.

- ★ Is _____ taller or shorter than _____?
- 7. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 3

What you need

- Rhyme: Five happy tortoises (page 99)
- Number 1, 2 and 3 symbol, picture
 String lengths for one group for and dot cards (Resource Kit)
- 5 animal counters in a seethrough container
- 5 beans or buttons in a seethrough container
- the height chart
- 1. **Rhyme:** Say the rhyme, *Five happy tortoises*, from Week 5. Ask learners what they think tortoises do in the day and at night. Do the action of pulling into their tortoise shells.
- 2. Oral counting 1–10: Learners count forwards from 1 to 10 and backwards from 5 to 1. Jump forwards and backwards outside on the number track.



Link sequencing daily events to the activities

in the daily programme.

3. **Counting objects 1–5:** Show the two containers with animal counters and beans or buttons in them. Ask learners to count how many they think are in each container. Count them together.

Guiding questions:

- ★ Whose answer was the closest?
- * Are there the same number of counters in each container?

 Talk about the fact that the animal counters took up more space than the beans/buttons, but there were still the same number in each container.
- * Are there the same number of objects in each container?
- 4. **Practising numbers 1–3:** Shuffle the dot, picture and symbol cards. Show these to learners. Play a game to see how quickly they can say what the number represents.
- 5. **Measurement:** The class estimates who in the next group of learners will be shorter or taller than the learners yesterday. Measure the next group of learners and write their names on the wall. Learners stand back to back to compare height.
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 4

What you need

- Song: The sun is in the sky (page 100)
- Number '3' symbol, word and dot cards
- A variety of household objects to represent day and night activities
- Cut-outs of 3 candles, 3 lamps and 3 stars
- Poster Book, Posters 1 and 4
- String lengths for one group for the height chart
- 1. **Song:** Sing *The sun is in the sky*.
- 2. Oral counting 1–10: Count, stamp and clap from 1 to 10.
- 3. **Counting objects 1–5:** Place a different number of different-sized objects into clear containers. Learners estimate how many are in the containers and count to check the accuracy of their guess.
- 4. **Practising 1–3:** Put the candle, lamp and star cut-outs on the mat. Learners take turns to fetch three candles, three stars and three lamps. They group each of these and stick them on the wall. Match the number 3 symbol, dot and word cards to the group with three objects. Count each group of objects with the class.

Guiding questions:

- * Are there more stars or more candles?
- If one star falls from the sky, how many stars are left?
- ★ Which groups have the same number of objects?
- ★ I want to have the same number of lamps and candles as the stars.

 What must I do?



Use maths table objects (representing day and night) or theme-related objects for counting activities.

- ★ If two people turned off their lamps how many would there be left shining? (Remove two.)
- * Are there fewer candles or fewer lamps?
- 5. **Night and day:** Talk about Poster 1.

Guiding questions:

- ★ Who can you see in this picture?
- ★ What are they doing?
- ★ Do you think it is daytime or nighttime? How do you know?
- ★ Do we open the curtains in the day? Why?
- ★ What do you do in the morning?
- What would baby Thami be doing if this was night-time?
- What would everyone be doing if it was night-time?

Talk about Poster 4.

- ★ Who can you see in this picture?
- ★ What are they doing?
- Where do you think Mom is coming from? How do you know?
- Who in your family goes out to work during the day?
- ★ Do you think it is the morning or afternoon?
- What do you think they are going to do next?
- ★ What do you do in the afternoon?
- ★ What do you do in the evening?
- ★ Why is Malusi hiding under the table?
- 6. Position: Talk about Poster 4.

- ★ Where is Granny?
- ★ Where is Pepper?
- ★ Where is Malusi?
- Could anyone else in the family fit under the table? Why?
- ★ What can you see on top of the table?
- ★ Where is Laylah hiding?
- ★ There's a picture hanging on the wall. Who is in the picture?
- * Is there anything on the wall below the picture?
- ★ What do you see next to the chair?
- ★ Who is outside?
- ★ Is Mom inside or outside the house?
- 7. **Reinforcing measurement height:** The class estimates who in the next group of learners will be shorter or taller than the learners yesterday. Measure the next group of learners and write their names on the wall. Learners stand back to back to compare height.
- 8. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.





Day 5

What you need

- Song: The sun is in the sky (page 100)
- 5 large star, moon and sun pictures Story: Malik gets it wrong
- Sun, moon, star, cloud, lamp and candle cut-outs
- Number 1, 2 and 3 dot, symbol, word and picture cards
- 6 chairs
- Tambourine
- Story: Malik gets it wrong (page 101)
- 5 night pictures and 5 day pictures
- 1. **Song:** Sing the song, *The sun is in the sky*. Use a sun and a moon picture to show the sun coming up and going down, and the sun and moon in the sky.
- 2. **Oral counting 1–10:** Learners count forwards from 1 to 10. Learners count backwards from 5 to 1 and jump once on each count as you point to the number washing line.
- 3. **Counting objects 1–5:** Count the five stars. Count five other things on the maths table that shine at night, for example, moon, candles, lamps (use cut-outs).
- 4. **Practising numbers 1–3:** Hand out the number dot, picture, symbol and word cards to some learners to match with the number friezes on the wall.
- 5. **Measurement:** The class estimates who in the next group of learners will be shorter or taller than the learners yesterday. Measure the next group of learners and write their names on the wall. Learners stand back to back to compare height.

Guiding questions:

- Who is the tallest in the class?
- ★ Who is the shortest in the class?
- ★ Is there anyone you live with who is very tall? Tell us about him/her.
- ★ Is there anyone at home who is shorter than you? Tell us about him/her.
- ★ Who is the tallest person you know?
- 6. **Position:** Place six chairs in front of the class. Place these pictures on the mat behind the chairs: three moons, one sun and three stars. Select learners to follow instructions.

Guiding instructions:

- Put two moons on a chair.
- Put one sun next to a chair.
- ★ Put one moon under a chair.
- * Fetch one star. Where do you want to put the star?
- * Fetch two stars and tell us where you are going to put them.
- ★ What do tortoises do at night when they sleep? Learners lie down and go into their tortoise shells.



Highlight ways in which learners may be discriminated against as this relates to physical appearance and height.

- 7. Day and night: Tell the story, Malik gets it wrong.
 - **Guiding questions:**
 - ★ What was the story about?
 - ★ Did the daytime or the night-time come first in the story?
 - ★ How do we know? What happened at the beginning of the story?
 - ★ What happened during the night/day? Why?
 - ★ What would happen if we went to school at night?
- 8. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Integration

Home Language and Life Skills: Talk about which activity learners did first in the day and which will follow. Ask learners how long different activities will take to complete. The daily weather chart, days of the week and weather calendar are linked to the concept of time.

Small group activities

Teacher-guided activity

What you need

- 5 candle, 5 lamp, 5 star and 5 moon cut-outs
- 3 blankets
- Day and night pockets and pictures
- 5 different animal counters in each learner's tub (the same animals for each learner)
- 10 blocks
- 1. **Oral counting:** Learners count from 1 to 10. They 'walk' their fingers forwards on the floor to show 1–5, and then backwards to show 6–10.
- 2. **Counting objects 1–5:** Learners count the moon, lamp, candle and star cut-outs.

- ★ How many stars are there? If I take one away how many will be left?
- ★ If I only have three candles, but I want five candles, how many more candles do I need?
- ★ Are there more stars or more candles? How do we know?
- 3. **Exploring dark and light:** Learners sit underneath the blankets. **Guiding questions:**
 - ★ What does it feel like underneath the blanket?
 - ★ What can you see underneath the blanket?
 - ★ Why is it so dark?



-`©́- TIP

Remember to give learners time to think and respond when you ask questions. Be sensitive to quieter learners who may find it difficult to speak in a group.

Ask learners to sit on top of the blankets.

- How do you feel when it's dark at night?
- ★ What do you do at night when it gets dark?
- ★ Why does it feel different to be out in the light again?
- What do you do in the light during the daytime that you can't do in the dark at night?

Show the day and night pictures to the group and talk about them. Spread the pictures on the mat. Learners take turns to find a day or night picture and put it in the correct pocket.



- 4. **Position:** Give each learner five animal counters and two blocks. **Guiding instructions:**
 - * Put the cow on the mat in front of you.
 - ★ Put the sheep next to the cow.
 - * Put the cow between the duck and the sheep.
 - ★ Put the horse on top of the block.
 - * Put the chicken under the block.
 - ▼ Put all your animals underneath a blanket.
 - ★ Put all your animals in your tub.
- 5. **Height chart:** Ask learners to stand in a line from tallest to shortest. Ask the tallest learner to stand next to their name on the wall. Ask the shortest learner to stand next to their name on the wall. Ask the learner standing between ____ and ___ to go to their name. Repeat, asking for taller or shorter learners, until each learner is standing against the height chart.



Check that learners are able to:

- sort pictures into day or night
- position themselves against the height chart
- follow instructions about positions: on, under, on top of, below, next to, between

Workstation 1

What you need

- Scissors, glue, crayons
- Magazines, newspapers, advertising pamphlets
- A day and night page for each learner

Learners draw or cut out day- and night-themed pictures. They glue them to the correct side of the page.



Workstation 2



What you need

Crayons

• Paper for each learner

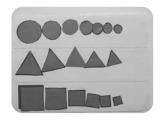
Learners draw a picture of their family members from the tallest to the shortest.

Workstation 3



What you need

 Pictures of circles, triangles and squares of different sizes and colours Scissors and glue



Learners cut out the circles, triangles and squares of different sizes and colours, and paste them from biggest to smallest.

Workstation 4

What you need

• 5 sets of 5 matching day/night pictures – 1 per pair of learners

In pairs, learners match the pictures of day and night. They replace the set and take another set until all five are complete.

Content Area Focus: Numbers, Operations and Relationships

Topics

- Numbers in familiar contexts
- Describe, compare and order numbers
- Problem solving
- Direction

New knowledge

- Zero
- Estimation
- Direction: up and down
- Problem solving
- Numbers in familiar contexts

Practise

- Counting forwards 1–10
- Counting backwards 5–1
- Counting objects 1–5
- Sequencing numbers 1–3
- Number concept 1-3
- Circle, square and triangle
- Six-piece puzzles

New maths vocabulary

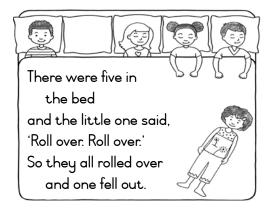
before after guess estimate more less one more one less

down zero

Getting ready

For the activities this week, you will need to prepare the following:

- group symbol cards
- 5 pegs, each with a number 1–5 written on it
- 5 boxes: box 1 has any 10 small objects in it; box 2 has number symbol cards 1–3; box 3 has number word cards one, two and three; box 4 has dot cards 1–3; box 5 has number picture cards 1–3
- a poster with Five in a bed lyrics written on the bed 'cover', number symbol cards that can be removed and 5 cut-out pictures of children



- 3 see-through containers with 5, 3 and 1 objects respectively
- 2 large arrow cut-outs
- tambourine or other musical instrument
- percussion instruments for about 21 learners, for example, sticks, blocks, cans, buckets, plastic bottles filled with rice, beans, stones
- 3 hula hoops.

Whole class activities

Day 1



Remember to use the toilet routine to practise ordinal numbers and position.

What you need

- Group symbol cards
- 3 numbered pegs
- 5 boxes of items (see 'Getting ready')
- Tambourine or other musical instrument
- Percussion instruments for 21 learners
- 3 hula hoops
- 1. **Oral counting:** Ask groups of five learners to stand and count from 1 to 10 as you show them their group symbol cards. Learners count backwards from 5 to 1 and sit as you touch them individually on the shoulder.
- 2. **Counting numbers 1–5:** Learners sit in a circle. Show learners the box that has ten objects in it. Count five objects together as you take them out of the box. Count the remaining objects to make a second group of five objects.
- 3. Ordering and matching groups of 1–3: Ask one learner to fetch one object, one to fetch two objects and one to fetch three objects. Ask these three learners to arrange their groups of objects in order from 1 to 3 on the mat.

Three other learners fetch dot cards and match the groups. Another three fetch number symbol cards and match the correct group. Another three learners fetch number word cards and match them to groups of objects.

- * Are there more objects in this group or in this group? How do we know?
- ★ Which group has the most objects? Which has the fewest? Ask three learners to put the numbered pegs 1, 2 and 3 in order onto the three empty boxes on the maths table. Ask another learner to collect all the things belonging to the number 1 group and to put them into the correct box. Repeat with 2 and 3.
- 4. **Small group activities:** Describe the activities at the four workstations. Remind learners about the tidy-up process.

Day 2

What you need

- Song: Five in a bed (page 101)
- Five in a bed poster with children 3 fruit counters and the other cut-outs
- 2 sets of number 1–3 number word, symbol and dot cards
- Set of dot and number symbol cards (Resource Kit)
- 2 clear containers, one with with 5 fruit counters
- Tambourine
- 1. **Song:** Introduce the song, *Five in a bed*.
- 2. Oral counting: Learners stand in a circle and count from 1 to 10 as they skip together. They stop and face the front of the class. They count backwards from 5 to 1, sitting on 1.
- 3. Counting objects 1–5: Show learners the Five in a bed poster. Count the five empty beds on the poster. Ask learners to count the cut-outs of children as you put them into bed.

Guiding questions:

- ★ How many children can you see in the bed?
- ★ How many children are there if I put one more in? And then another one?

Take one cut-out child out of the bed as you count backwards.

- How many children would be left in the bed if one fell out?
- If two children fell out of the bed, how many would be left?
- 4. Matching numbers 1–3 game: Choose nine learners. The others stand in a circle around them. Keep a set of number 1-3 cards and hand the other set out to nine learners. Place three hula hoops on the mat with a number symbol 1, 2 or 3 inside each one. Beat the tambourine. When the music stops, hold up any card. Learners check their cards and jump into the hula hoop if their card corresponds to the number you are holding up. Continue in this way for all the numbers. Repeat with other learners.
- 5. **Estimate and count 1–5:** Show the two containers with fruit counters. **Guiding questions:**
 - How many fruit counters do you think there are in this container?
 - And in this container?
 - ★ Which container do you think has the most fruit counters in it?
 - ★ How do you know?

Show the container with five fruit counters in it.

- How many fruit counters do you think are in this container?
- ★ Do you think there are more/fewer than three fruit? Let's count.
- ★ Did anyone guess this number correctly?

Show the container with three fruit counters in it.

- ★ How many fruit counters do you think are in here? Let's count. Take the fruit counters out of the containers. Group them together as in the containers.
- ★ Which group has more fruit?
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 3

What you need

- Song: Five in a bed (page 101)
- Five in a bed poster with children 5 theme-related objects cut-outs
- A blanket/sheet
- Numbered pegs 1–5
- Animal cards 1–3 (Resource Kit)
- 2 large arrow cut-outs
- 2 A4 pages with a drawing of a bird on each
- 1. **Song:** Sing the song, *Five in a bed*.
- 2. Oral counting: Stand and count forwards from 1 to 10. Crouch and count backwards from 5 to 1, leaping up on 1.
- 3. **Counting objects 1–5:** Count the children in the bed. Count five learners to dramatise the song. The learners lie down in a row. Cover them with a blanket or sheet. Sing the song as they roll out of bed one by one. The class counts 1–5 as learners roll over.
- 4. **Problem solving with objects 1–5:** Put the objects you have selected on the mat.

Guiding questions:

- ★ How many objects do you think are here? (Count together.)
- ★ If I take one away, how many will be left? (Count together.)
- If I take two away, how many are left? (Count together.)
- ★ How many should I put back so that there are five objects on the mat again? (Count together as you replace the objects.)
- 5. **Direction up, down:** When you say 'up', learners point up to the ceiling and when you say 'down', they point down to the floor. Choose a learner to stand in front. When they raise their hands, the learners stand up. When they lower their hands, the learners sit down. Repeat with two other learners.

Place one bird picture at head height and the other facing down lower on the wall. Show learners the up and down arrows. Point an arrow up and ask which way the arrow is pointing. Point the other arrow down and ask which way it is pointing. Point the arrows to show the direction (up or down) that the birds are flying. Put the arrows on the wall to show the birds' direction. When you point the arrow up, learners stand up. When you point the arrow down, learners sit down.

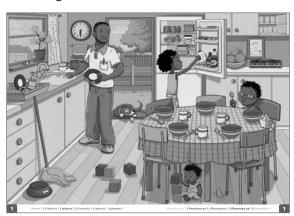
- 6. **Practising 1–3:** Show the animal cards 1–3. Hold them 'up' or 'down' and learners say 'one elephant up', 'two zebras down', and so on.
- 7. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 4

What you need

- Song: Five in a bed (page 101)
- Number 1–3 symbol and dot cards
- Five in a bed poster with children Poster Book, Poster 1 cut-outs
 - Tambourine

- A blanket
- 1. **Song:** Sing the song, *Five in a bed*.
- 2. Oral counting: Girls count forwards from 1 to 5. Boys count from 6 to 10. All learners count backwards from 5 to 1 and clap on 1.
- 3. Counting objects 1–5: Count five learners to dramatise the song as on Day 3.
- 4. **Practising numbers 1–3:** Learners move to the beat of the tambourine. When the music stops, show a number 1, 2, or 3 number symbol or dot card. Learners make groups according to the card that has been shown.
- 5. **Problem solving more and less:** Talk about Poster 1. Learners use their fingers to show the correct number to answer your questions.



- ★ How many people are in the kitchen?
- If one goes outside, how many would we see?
- ★ How many animals are there?
- How many chairs are there? How many bowls? How many spoons?
- ★ How many mugs can you see in the picture?
- ★ How many mugs are on the table?
- ★ How many other mugs can you see?
- ★ How many plates do you see?
- ★ How many blocks do we need for each person in this picture to have one?
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.



It is important to include parents/ caregivers in their children's development. Encourage parents to be involved and support their children's mathematical learning at home and in the community.

Day 5

What you need

- Song: Five in a bed (page 101)
- Five in a bed poster with children cut-outs
- A collection of 10 everyday objects
 - Number 1–3 symbol, dot and word cards
- 1. **Song:** Sing the song, *Five in a bed*.
- 2. **Oral counting:** Stand and count forwards from 1 to 10. Crouch and count backwards from 5 to 1, leaping up on 1. Then all sit down.
- 3. **Counting objects 1–5:** Count five learners to dramatise the song as on Day 3.
- 4. **Practising numbers 1–3:** Give each learner a number symbol, word or dot card. They don't show their cards to each other. They move around until they find the other learners with matching numbers.
- 5. **Using numbers in familiar contexts:** Look for numbers in the classroom. Learners point to the number.

Guiding questions:

- What numbers can you see in the classroom? Look at the birthday chart and discuss learners' birthdays.
- ★ How old are you?
- ★ When is your birthday? What date is your birthday?
- Can you show me that number on the calendar? Learners point to their picture and say their birth date.
- 6. **Practising position and direction:** Play 'Sizwe says'. Learners follow the 'Sizwe says' actions. If you don't say 'Sizwe says' then learners must keep still and not do the action.

Guiding instructions:

- ★ Put your hands behind your back.
- ★ Put your hands on your head.
- * Put this hand in front of this shoulder.
- ★ Stretch up and turn.
- * Bend down and touch your toes.



Use actions that encourage midline crossing. Focus on positional words such as: this side, that side, up, down, on, under, on top, below, next to, between, in, out, inside, forwards, backwards, in front of, behind.

7. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.



Identifying numbers in familiar contexts can be done during routine times, between activities and in games, for example, when using the register, playing card games, and doing weather and calendar activities.

Small group activities

Teacher-guided activity

What you need

- 6 small toy cars
- 3 cardboard boxes with openings cut out for cars to 'drive' into
- Number 1–3 word, dot and symbol cards
- A tub for each learner with number 1–3 symbol, word and

dot cards, and 6 fruit counters (from the *Resource Kit*)

- A clear container with no more than 5 fruit counters
- 2 large round plastic lids for each learner
- 1. **Oral counting 1–10:** Learners clap as they count from 1 to 10. Learners tap the mat as they count backwards from 5 to 1.
- 2. **Matching number symbols to cars:** Make garages by placing three cardboard boxes in a row with the openings facing the learners. Display a 1, 2 or 3 number symbol card on top of each box. Give three learners number 1–3 dot cards. They choose the correct number of cars to match their dot cards and park their cars in the correct garage. **Guiding questions:**
 - ★ Where are you going to park your car/s? Why?
 - ★ How many cars should you park in this garage?
 - ★ Which garage has more/fewer cars?
 - ★ Which garage has two cars in it?
- 3. **Matching numbers and fruit counters:** Give each learner a tub. They pack out the counters in order from 1 to 3. Then they match the number symbol, word and dot cards.

Guiding questions:

- How many fruit counters do you have in each group?
- Can you show me the group that has two fruits in it?
- ★ What number comes after 2? Show me the group with that number.

Focus on the group with three counters:

- Give me one fruit. How many fruit do you have now?
- Does the group of fruit still match the number cards?
- three
- ★ How many fruit do I need to give you to make that number again?
- 4. **Estimating:** Place fruit counters (not more than five) in a clear container. Ask learners to estimate how many there are. Then count the items.
- 5. **Shake and break:** Show the learners the three fruit counters in your hands. Count them. Play 'Shake and break' with the fruit counters. **Guiding questions:**
 - ★ How many fruit counters do I have in this hand? And in this hand?
 - When I put them together how many do I have?



Estimating is trying to most accurately guess a number. Making wild guesses is not estimating.









Learners count three fruit counters from their tubs and place them on the mat in front of them. Give each learner two lids. Play the 'Shake and break' game together: Learners place their counters on their two lids as they have 'broken them up' and take turns to say how many they have on each lid.

- ★ How did you break up your counters?
- ★ How many do you have on each lid?
- ★ Whose are the same? Who did something different? Why are they the same/different?

Repeat, asking the learners to break up the counters in as many different ways as they can.





- 6. **Introducing zero:** If a learner has no counters on one lid and five on the other, discuss the empty lid. Talk about having nothing or zero on one lid and five on the other lid.
- 7. **Direction:** Play a game using arrow cards. Learners follow the up and down signals using their fingers, arms, legs and bodies.

(1)

Check that learners are able to:

- estimate a number of objects
- use problem-solving techniques: counting all
- identify one more and one less in a collection of objects
- follow directions for up and down
- identify and order collections of 1, 2 and 3

Workstation 1



What you need

1 prepared page (as shown in photograph) per learner

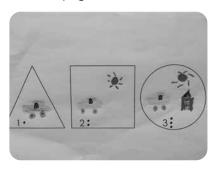
Learners make playdough objects of their choice and place them next to each number.

Workstation 2

What you need

- 1 prepared page (as shown in photograph) per learner
- Crayons

Learners draw any object or objects to match the numbers in the shapes on their pages.



Workstation 3



What you need

- 1 prepared page (as shown in photograph) per learner
- Cut-outs of 2 trees, 1 moon and 3 stars in a tub for each learner
- Glue and crayons

Learners create a picture by pasting 3 stars, 2 trees and 1 moon on their page. They decide what should be up in the sky and what should be down on the ground and draw other details of their choice.

Workstation 4



What you need

• 1 puzzle (minimum six pieces) per learner

Learners build puzzles.

Integration

Home Language and Life Skills: While the learners play outdoors, use directional vocabulary, for example, up the ladder, down the slide. Play a jumping in and out game. Use a rope and pretend that the one side is the river and the other side is the riverbank. Learners jump into the river and then jump out before the 'crocodile' gets to them.

Content Area Focus: Data Handling

Topics

- Collect and sort objects
- Represent sorted collections of objects
- Discuss and report on sorted collections of objects

New knowledge

- Collect, sort and represent collections of objects
- Discuss and report on sorted collections of objects

Practise

- Oral counting 1–10
- Counting objects 1–5
- Sequencing numbers 1–3
- Number concept 1-3
- Before and after
- Copy patterns
- Problem solving

New maths vocabulary

collection group

sort compare match always sometimes never column row all

some altogether calendar

Getting ready

For the activities this week, you will need to prepare the following:

- a picture of a taxi
- 10 smiling faces drawn on small pieces of card to represent children in a taxi
- clean recycled objects of different types: plastic milk bottles, plastic bags, plastic containers, cardboard milk bottles, cardboard boxes, lids
- weather symbol labels for sunny, rainy, cloudy and windy days
- the calendar for the current month on which the learners record the daily weather. Make enough labels of the same size for each weather type reflected on the calendar: sunny, rainy, cloudy, windy.
- a large sheet of paper to make a weather symbol pictograph. Draw the four weather symbols along the bottom of the sheet of paper.
- a collection of clothes: scarves, hats, bags, gloves, socks, belts, ties
- a tub for each learner with varying collections of 4, 3, 2 groups of animal counters from the *Resource Kit*
- an A4 page for each learner with 3 columns and 4 rows.



Remember to use the toilet routine to practise ordinal numbers and position.

Whole class activities

Day 1

What you need

- Number friezes 1-3
- Number 1–3 dot, word, symbol and picture cards (*Resource Kit*)
- A rubbish bag filled with clean recycled objects
- Cards with learners' names and symbols
- 1. **Song/rhyme:** Practise a song or rhyme taught this term.
- 2. Oral counting: Count forwards from 1 to 10 and backwards from 5 to 1.
- 3. **Counting objects 1–5:** Place the recycled objects on the mat. Talk about what these objects are used for. Together count a group of five objects.
- 4. **Practising numbers 1–3:** Give learners dot, word, symbol and picture cards for numbers 1–3. Other learners count out groups of three recycled objects. Learners match the cards to the groups.
- Sorting and classifying: Put all the recycled objects together in one pile.Guiding questions:
 - ★ How do you think we should sort these objects?
 - ★ Why do you think we should sort them like that?
 - ★ Can we sort them another way?
 - ★ Which of these objects are the same? Why? (Collect them and put them together into a group.)
 - What can we call this group? (for example, objects made out of plastic, objects we use to keep food in)

Put the objects together in a different group.

★ What can we call this group?

Repeat so that you have three groups, for example, milk containers, plastic bags and boxes.

Are the materials used to make any of the objects in any of the groups the same?

Put the objects all together in one big group again.

- Can you think of any other groups we could make using these objects?
- 6. **Small group activities:** Describe the activities at the four workstations. Remind learners about the tidy-up process.

Day 2

What you need

- Rhyme: Taxi, taxi (page 101)
- Picture of a taxi and 10 smiling faces
- Number 1–3 symbol cards
- A box with a collection of clothes, for example, scarves, hats, bags, gloves, socks, belts, ties

- 1. **Rhyme:** Introduce the rhyme, *Taxi*, *taxi*. Put the pictures of the smiling faces in the taxi on the wall as you say the rhyme.
- 2. **Oral counting:** Count forwards from 1 to 10 and backwards from 5 to 1, pointing to the taxi pictures.
- 3. **Counting objects 1–5:** Together count 1–5 smiley faces. Then count another 1–5.
- 4. **Practising numbers 1–3:** Give three learners a number symbol card 1, 2 or 3 in random order. They show the class their cards. Tell the class that these learners are waiting for the taxi.

Guiding questions:

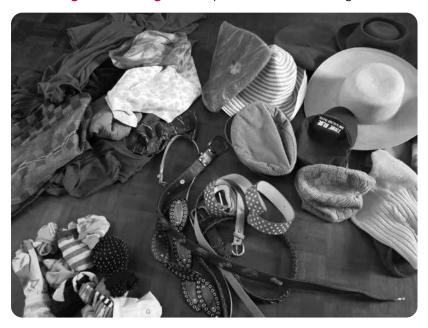
- ★ If we make a line with these learners, who should stand first?
 Second? Third?
- ★ Which number is last in this line?

Ask the learner with number 2 to choose a friend so that there are two of them.

➤ Does _____ holding the number 1 card have to choose any friends for his/her group? Why not?

Ask the learner with number 3 to choose two friends so that there are three of them.

5. **Collecting and sorting data:** Spread out the clothing items.



- * How can we group these items?
- ★ Which of these items are the same? Why? (Collect them and put them together into a group.)
- ★ What can we call this group? (for example, socks, scarves, belts, hats)
- Can we group them into clothes we wear when it is hot or cold?
- 6. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 3

What you need

- Rhyme: *Taxi, taxi* (page 101)
- 10 learner-sized chairs
- Picture of a taxi and 10 smiling faces
- 5 hats

- Number 1–3 symbol, dot and word cards
- A bag filled with clean recycled objects of different types
- 1. Rhyme: Say Taxi, taxi, pointing to the faces in the taxi as you say it.
- 2. **Oral counting:** Count forwards from 1 to 10 and backwards from 5 to 1, pointing to the taxi picture.
- 3. Counting objects 1–5: Count out five chairs and place them in a row. Count another five chairs and make a second row next to these, as in a taxi. Ask how many learners you will need to fill each of the two rows. Together count five learners for one row. Repeat for the next row. Ask five learners to stand next to the 'taxi'. Together count five hats for each of the learners.

Guiding questions:

- ★ How many learners wearing hats are waiting for the taxi?
- ★ How many seats are there in this row?
- ★ Will there be enough seats in this row for the learners wearing hats?
- ★ Will there be enough seats in this row for those without hats?
- ★ How do we know if there are enough seats for all these learners who are waiting?
- 4. **Counting backwards 5–1:** Count as learners from each row go back to their places.
- 5. **Practising numbers 1–3:** Sort the clean recycled objects into groups of three with the learners. Learners match number word, symbol and dot cards 1–3 to the groups of recycled objects.
- 6. **Collecting and sorting data:** Say, 'I wonder how many learners are wearing socks.' Learners stand in a circle. Call out different attributes, and the learners who match these, step into the centre.

Guiding instructions:

- Learners who are wearing socks stand together.
- * Learners who are wearing sandals stand together.
- Learners who are not wearing shoes stand together. (Make sure to say the shoe type to include all learners.)

- Is it easy to see how many learners are wearing socks?
- How can we arrange ourselves so that we can easily see this?
- Represent the data: Learners suggest ways of arranging themselves.
 Guide them to sit in rows to represent learners wearing socks, sandals, and so on.



- 8. **Analyse and report on the data:** Discuss the groups of learners.
 - **Guiding questions:**
 - ★ Which group has more/fewer/the same number of learners?
 - ★ How many learners are wearing socks?
- 9. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 4

What you need

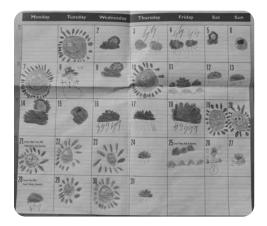
- Rhyme: *Taxi, taxi* (page 101)
- 10 learner-sized chairs
- Prepared pictograph page
- Number 1–3 symbol, word and dot cards
- Calendar for the current month on which the weather has been recorded
- Pictures to represent the weather on each day of the month
- 1. **Rhyme:** Say the rhyme, *Taxi, taxi.* Repeat the taxi seats activity from Day 3 with a new group of learners.
- 2. **Oral counting:** Show fingers as you count forwards from 1 to 10 and backwards from 5 to 1.
- 3. **Counting objects 1–5:** The learners count 5 sun, 5 rain, 5 wind and 5 cloud pictures. Place these on the mat in groups as you count.
- 4. **Practising numbers 1–3:** Use the Number 1–3 friezes. Point to each number as learners count.

Guiding questions:

- ★ Which house number comes before 2?
- ★ Which house number comes between 1 and 3?
- ★ What is the house number that is one more than 2?
- ★ What is the house number that is one less than 3?

Three learners attach 1, 2 or 3 cloud, sun or rain pictures below the appropriate number frieze.

5. **Collecting data:** Look at the current month's calendar on which learners have recorded the daily weather.



- ★ What does this calendar show us?
- * How can we find out if we had more sunny days than other days this month?

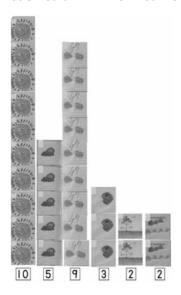
The pieces of

cardboard that the

weather pictures are

drawn onto need to be exactly the same size. Place these above each other in the columns with no spaces between them so that learners can easily see which column has the most, least or the same. Attempt to count each one, making a display of how difficult it is to keep track of the counting. Ask learners to suggest a solution. Match the weather pictures to the calendar drawing as learners count. Place the pictures randomly on the mat.

- ★ How shall we group these pictures?
- 6. **Sorting data:** Ask learners how we can organise the pictures. Put the pictures into groups: cloudy, sunny, rainy and windy.
 - ★ What shall we call each group?
- 7. **Representing data:** Ask learners how we should arrange the pictures so that we can more easily see whether there were more sunny days than other days in the month. Guide learners to put the pictures into columns. Place a card with the number to indicate the weather below each column. A few learners place the pictures in the correct columns.



- 8. **Analysing and reporting on data:** Look at the weather pictograph. **Guiding questions:**
 - Which weather did we have the most/least/same number of? How do you know?
 - Did we have more rainy, cloudy, windy or sunny days?
- 9. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Day 5

What you need

- Rhyme: *Taxi, taxi* (page 101)
- 2 sets of 1–3 number symbol, word and dot cards
- 10 learner-sized chairs
- Weather pictograph

-`@́- TIP

Set the 'taxi' up in the fantasy area for learners to use during free play.

- 1. **Rhyme:** Say the rhyme, *Taxi, taxi.* Repeat the taxi seats activity from Day 3 with a new group of learners.
- 2. **Oral counting:** Count forwards from 1 to 10 and backwards from 5 to 1 to a marching rhyme.

- 3. **Practising numbers 1–3:** Give nine learners one number symbol, word or dot card each. Rearrange the 'taxi' chairs into three rows of three. Place number cards on the back of each chair. Learners sit in the chair that matches their card when you call out their number.
- 4. **Practising data collection and representation:** Look at the weather pictograph from Day 4.

Guiding questions:

- ★ Which picture can we add for today's weather? Which column?
- What weather have we had the most/least/same number of days? Is this different from what we said yesterday? How do you know?

Count the weather cards for each type of weather on the pictograph. Change the number below the column that has today's picture added.

5. **Small group activities:** Remind the learners about the activities at the workstations and the tidy-up process.

Small group activities

Teacher-guided activity

What you need

- A tub for each learner with varying collections of 4, 3 and 2 groups of animal counters (from the Resource Kit)
- A page for each learner with 3 columns and 4 rows
- 1. **Counting 1–10:** Learners sit in pairs and face each other. They slowly clap their hands against each other as they count to 10. Repeat.
- 2. **Counting objects 1–5:** Place animal counters on the mat. Learners take turns to count from 1 to 5.
- 3. **Sorting and classifying:** Ask learners to arrange the animal counters in another way and check that there are still five. Ask learners to take the animal counters out of their tubs and sort them.

Guiding questions:

- ★ How did you sort the animals? Tell me why you sorted them like that.
- Can you sort them another way?
- ★ Are any of the groups the same? (colour, animal type)
 Place a pile of 3 ducks, 2 chickens and 1 horse in the middle of the circle.
- * How can we see if there are more ducks than chickens in the group?
- 4. **Sorting data:** Organise the animals into groups.

- * Can we see if there are more ducks than chickens now?
- ★ How can we check?

- 5. **Representing data:** Place a page on the mat with three columns and four rows. Place one of each animal at the bottom of each column. Learners place their animals in the columns on their page.
- Interpreting and reporting on data: Look at the columns.Guiding questions:
 - * Are there more ducks or more chickens? How do we know?
 - ★ Which column has more/fewer animals?
 - * Are any columns the same?

Give each learner 4, 3, 2 animals. Explain that they each have different collections of animals. Ask each learner a specific question based on the number of animals in their own collections, for example:

- ✗ Do you have more sheep or more horses?
- ★ How will you find out?
- How will you sort this collection into groups to find the answer?
- ★ What will you do after you have sorted your animals into groups?

Guide learners towards starting by placing one of each of their different animals at the bottom of each column on their page. Interpret the data together comparing each learner's different groups. Ask each learner to explain how they know which animal they have more of.



Check that learners are able to:

- collect, sort and represent collections of objects
- count 1-5 objects

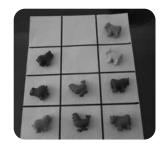
Workstation 1

What you need

A collection of recycled objects
 5 boxes for each pair of learners

This activity should be done on the mat as the learners will need space. In pairs, learners sort the collection of recycled objects into the boxes.





Workstation 2

What you need

- Red, blue, green and yellow items for sorting
- Containers for colour sorting with a label indicating the colour

Learners sort the items into the correct colour containers.

Workstation 3

What you need

- Sorting trays or boxes
- Natural items for sorting: leaves, twigs, petals, pebbles, seed pods, shells, feathers

Learners sort the items into boxes or trays.



Workstation 4



What you need

- String or masking tape
- Blocks

• Prepare the block corner – create one pattern per pair of learners

Learners work in pairs to copy patterns in the block area. They move to a different pattern as they complete one. They can create their own patterns once all four patterns have been completed.

Integration

Home Language and Life Skills:

- Using symbols to represent something (emergent literacy).
- Interpreting symbols.
- Play games where the learners are sorted according to certain criteria, for example, those who had juice that morning, those who are going to play sport after school, those who walked to school.

Term 1: Exemplar Record of Continuous Assessments

Assessment

Final coding COMMENTS Explains own pattern (repeating rule) PATTERNS, FUNCTIONS Copies, completes and creates own patterns AND ALGEBRA Copies patterns using body percussion Copies and completes patterns Recognises the 'repeat' in patterns Identifies patterns in environment Solves problems using fingers or counters Solves problems with concrete objects Distinguishes between many and fewer **NUMBERS, OPERATIONS AND RELATIONSHIPS** Understands one-to-one correspondence Orders numbers: 1–3 Identifies number words: one I :slodmys redmun seifitnebl Identifies dot/picture cards: 1–3 Understands ordinal numbers, e.g. lining up Recognises numbers in familiar contexts Counts backwards: 5-1 Estimates and counts objects: 1–5 Counts forwards to 10 Date X = not yet competent Learners' names = partially competent Key

	Pinal coding							
COMMENTS								
وَا	noitstneserger thous anoitseup sreward							
DATA HANDLING	Represents objects according to one attribute							
	etudirts ano ot gnibrocos stoejdo stro2							
	Collects objects according to one attribute		 · · · · · · · · · · · · · · · · · · ·					
MEASUREMENT	Distinguishes between tall, taller, tallest and short, shorter, sh							
	Shows an awareness of days of the week, seasons		 			 		
	emmergorq ylisb s ni seitivitise seifitnebl		 ! ! ! !					
	Sequences recurring events in the daily programme		 					
	Uses words like day and night, light and dark, morning and afternoon		 					
	Understands morning, afternoon and evening/night							
SPACE AND SHAPE (GEOMETRY)	Recognises line of symmetry in body		 					
	Sorts, compares and describes 2-D shapes according to properties		 					
	9lpneirt :eaqed							
	Identifies and names 2-D shapes: square							
	elritinebl α-Δ səmen bne səifitnəbl							
	Sorts, compares and describes 3-D objects that slide or roll		 					
	səxod bns sllsd :stəəjdo Q-E səmsn bns səifitnəbl		i ! !					
	Follows directions from instructions							 - -
	Follows directions, e.g. forwards, backwards, up, down		 					
	Describes position, e.g. in front of, behind, on, on top of, under, below, in, out, next to, between							
Key	 = competent = partially competent X = not yet competent Learners' names 	Date						

Resources

Songs, rhymes and stories

Week 1

Story: Introducing the *Grade R Maths family* in conjunction with Poster 4

This is the Poster Book family. Granny and the children are in the lounge waiting for Mom to come home from work. Granny is sitting in the chair reading and listening out for Thami who is asleep in her bed. Dad isn't home yet, but you can see him and Thami in the family's picture on the wall. Can you see them?

Laylah and Malusi are hiding. They want to jump out and surprise their mother when she walks into the house.

'Sshh, Malusi, keep quiet, you'll spoil the surprise,' says Laylah.

Pepper the cat is listening to the children and pretending to be asleep and Dash is playing in the garden. Suddenly Dash begins to bark, run around and wag his tail wildly.

'Mom must be home,' whispers Malusi. 'Keep very quiet and very still.'

Mom opens the door and sees Granny but no one else.

'Hello,' she calls. Granny says hello, but keeps the secret of where the children are hiding.

Mom says, 'It's so quiet in here. Where are the children?'

'I don't know,' says Granny with a little smile and a twinkle in her eye.

'Surprise!' shout Malusi and Laylah as they hurry out of their hiding places. Pepper jumps out of her box in fright and Dash jumps up and down with excitement. Mom is very surprised and she laughs with the children.

'Whaaa!' cries Thami.

'Oh dear,' says everyone.

Counting rhyme: Five in my family

Mother finger, Mother finger, where are you? Here I am, here I am, we have 1. Father finger, Father finger, where are you? Here I am, here I am, now we have 2. Laylah finger, Laylah finger, where are you? Here I am, here I am, now we have 3. Malusi finger, Malusi finger, where are you? Here I am, here I am, now we have 4. Thami finger, Thami finger, where are you? Here I am, here I am, now we have 5.

Week 2

Counting song: Hokey Pokey

You put your one arm in,
You put your one arm out,
You put your one arm in,
And you shake it all about.
You do the Hokey Pokey
And you turn yourself around.
That's what it's all about!
(Repeat using the other arm and then different body parts.)

Counting rhyme: Bananas

One banana, two bananas, three bananas and four. Five bananas in a bunch, let us eat them all.

Story: *Number 1 story* (with Number 1 frieze template)

Some of the animals wanted to live together. 'Let's build houses next door to each other,' they said. 'That would be fun!'

And so the animals began to build their houses.

The first house belonged to Elephant. He was big and lived all alone in his house. He painted a big number 1 on the roof of his house. His house had one door and one window. In Elephant's garden, there was one flower, one banana tree and one bench. Elephant loved to sit on the bench under the tree every day and smell the flower. He also loved to look up at the sky and look for things that could fly. What do you think he saw?

Week 3

Counting rhyme: One baby fish

One baby fish alone and new, She finds a friend, and then there are two. Two baby fish swim in the sea, They find another one, and then there are three. Three baby fish swimming near the shore, They find another one, and then there are four. Four baby fish go for a dive, Up swims another one, and then there are five.

Week 4

Story: *Number 2 story* (with Number 2 frieze template)

Do you remember that some of the animals wanted to live together and have fun building their own houses next door to one another? Who remembers who the first house belonged to? That's right – Elephant!

A family called the Zebras built their house next to Elephant's house. The Zebras painted a big number 2 on the roof of their house because there were two of them.

Elephant was very happy when they built their house because he wasn't alone anymore.

The Zebras' house had two doors and two windows. In the garden they had two flowers, two apple trees and two benches.

After they had eaten grass under the trees, the Zebras liked to play with their two soccer balls and watch Elephant while he looked up at the sky and flapped his two big ears.

Counting rhyme: *One, two, three, four, five*

One, two, three, four, five Once I caught a fish alive. 'Why did you let it go?' Because it bit my finger so. One, two, three, four, five Then I caught a frog alive. 'What did you do with that?' I said hello and put it back.

Song: Circles

Start at the top Loop around to the floor Swing back around ... Let's make more!

Week 5

Counting rhyme: Five happy tortoises

One slow tortoise walks down the road, Two slow tortoises carry a heavy load. Three slow tortoises take a rest, Four slow tortoises do their best. Five slow tortoises hurry along, Happy little tortoises sing a song. (Clap hands on each word.)

Week 6

Story: *Number 3 story* (with Number 3 frieze template)

Do you remember that some of the animals in Number Land wanted to live together and have fun building their own houses next door to one another?

Elephant's neighbours are the Zebras on one side. Elephant doesn't have any neighbours on the other side.

Questions:

- Why did the Zebras paint a big number 2 on the roof of their house?
- Who can remind me what the difference is between Elephant's house and the Zebras' house?
- Who do you think should build their house next to the Zebras' house? And how many animals do you think should live in that house?

A family of three grown-up brothers called the Meerkats were the next animals to build a house in Number Land. The Meerkats built their house next door to the Zebras.

This wasn't the first house that the Meerkats had built. When they left home because they had grown big enough, they built their own houses. But unfortunately, their first houses weren't strong enough. The first Meerkat built a house out of grass and the second Meerkat built a house out of sticks. Although the third Meerkat built a house out of bricks, he didn't know that he had to use cement between the bricks so when the jackal came, all three of their houses got blown down by the jackal's huffing and puffing.

The Meerkats decided to build a strong house next to the Zebras so that they could have neighbours close by to make them feel safe. They had also missed each other when they were living apart so they were very happy to have their three beds next to each other again. They were also happy to have three underground tunnels, three rocks and three bushes in their garden. Now they use these a lot as they love to play hide-and-seek. They also lie in the sun on the rocks when they feel cold.

Counting song: I have a little wheelbarrow

(to the tune of *Mary had a little lamb*)

I have a little wheelbarrow, wheelbarrow, wheelbarrow

I have a little wheelbarrow, I fill it up with sand.
I fill it up with one spade, one spade, one spade
I fill it up with two spades, I fill it up with sand.
I fill it up with three spades, three spades,
three spades

I fill it up with four spades, I fill it up with sand. Last I put in five spades, five spades, five spades Last I put in five spades, and off I go again.

Week 7

Triangle song: This is a triangle

(to the tune of *Row, row, row your boat*)
This is a triangle,
Look and you will see.
With three corners and three sides.
Count them one, two, three!

Counting rhyme: Hear me count

I can count, want to see?
Here are my fingers – one, two, three.
Four and five, this hand is done,
Now I'll count the other one.
Six, seven, eight and nine,
Just one more, I'm doing fine.
The last little finger is number ten,
Now I'll count them all again.

Week 8

Day and night song: The sun is in the sky

(to the tune of *The farmer's in the den*)
The sun is in the sky, the sun is in the sky,
Hot and bright it gives us light,
The sun is in the sky.
The moon is in the sky, the moon is in the sky,
It's late and dark, we tuck up tight,
The moon is in the sky.

Day and night story: Malik gets it wrong

Malik was fast asleep in his bed. He was having such a happy dream, but suddenly he woke up and jumped out of bed.

'I'm going to be late for school,' worried Malik. 'I'd better hurry.'

So he brushed his teeth, put on his clothes and ran to the kitchen to find his breakfast.

But when he got to the kitchen, all was quiet. There was no breakfast and the family wasn't there either.

'What's going on?' wondered Malik. 'Where are Mom and Dad? Where is everyone else? And, where is my breakfast?'

Malik stopped. He looked around. Everything was dark. He reached for the wall to switch the light on.

Malik looked around. What was going on? He opened the curtains and looked outside. He saw a beautiful shiny moon and a sprinkle of stars.

'That's not right,' thought Malik. 'If it is school time, why is it still so dark outside?'

Malik listened to the sounds of the house. It was so quiet. But then he heard something that he knew well – Dad was snoring! He went to the bedroom and saw Dad fast asleep.

Mom woke up. 'What's going on, Malik? Why are you in your school clothes? It's still the middle of the night. Go on, back to bed you go. Sleep tight until morning,' she said and gave him a big hug.

Malik went back to bed. He didn't bother to put his pyjamas back on. Soon he fell fast asleep and when he woke up, it was morning.

Malik hurried to the kitchen and this time everything was normal. He could see the sun just coming up, his breakfast was on the table and his family were already eating.

Soon Dad called out, 'Hurry everyone, the school taxi will leave without us.'

The children hurried to the door with their father. Malik smiled. Everything was back to normal.

Week 9

Counting song: Five in a bed

There were five in the bed and the little one said, 'Roll over. Roll over.' So they all rolled over and one fell out. (Repeat for four, three, two) There was one in the bed and the little one said, 'Good night. Sleep tight.'

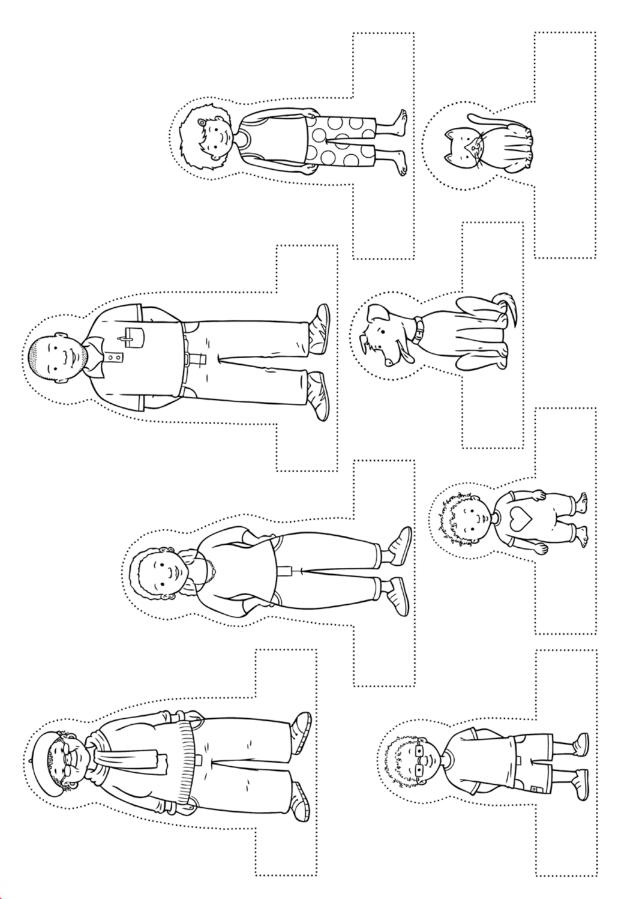
Week 10

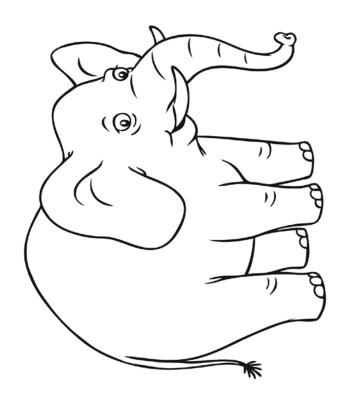
Counting rhyme: Taxi, taxi

Taxi driver stop for us,
We want to catch your taxi bus.
We get in 1, 2, 3, 4, 5.
Taxi driver now you can drive.
Taxi driver stop for them.
We get in 6, 7, 8, 9 and 10.
Thank you driver, we're all in.

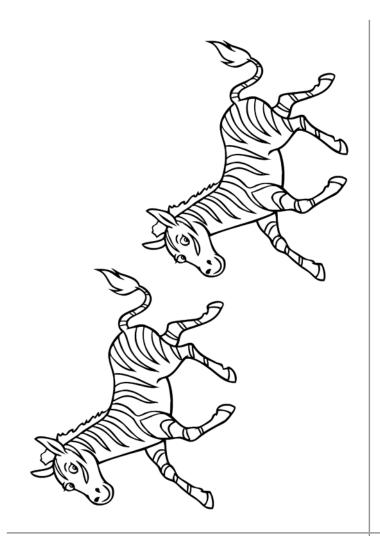
Templates

Finger puppets (Week 1)



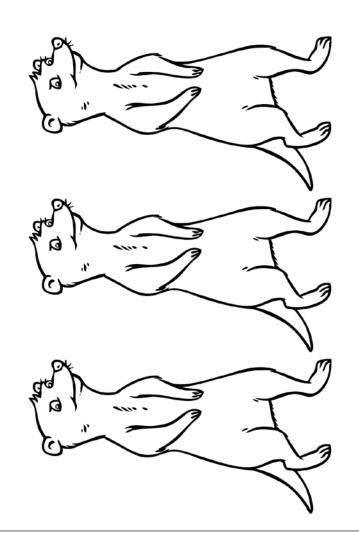


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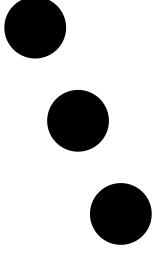




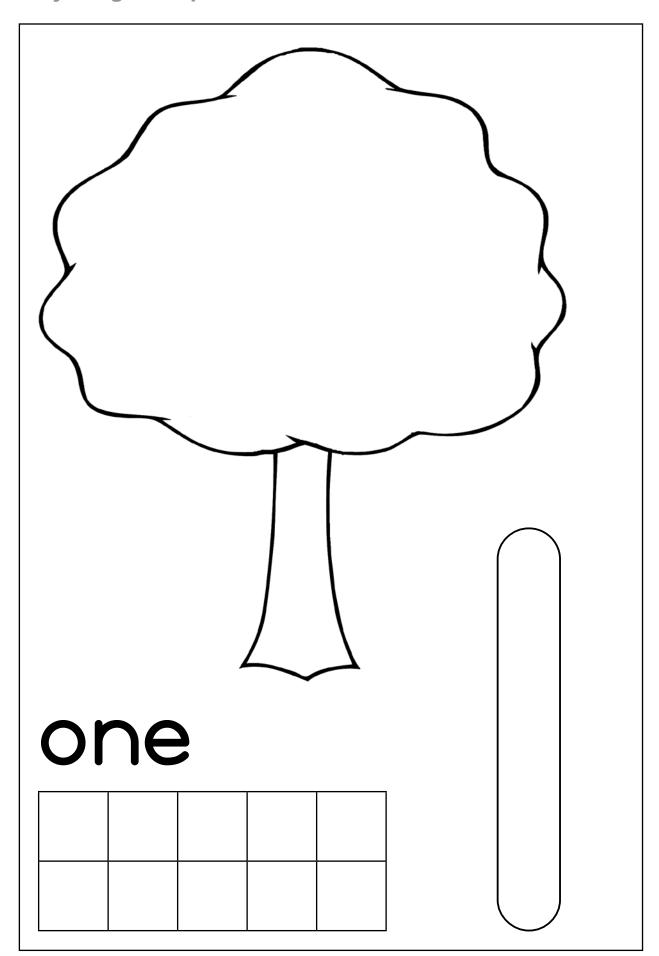




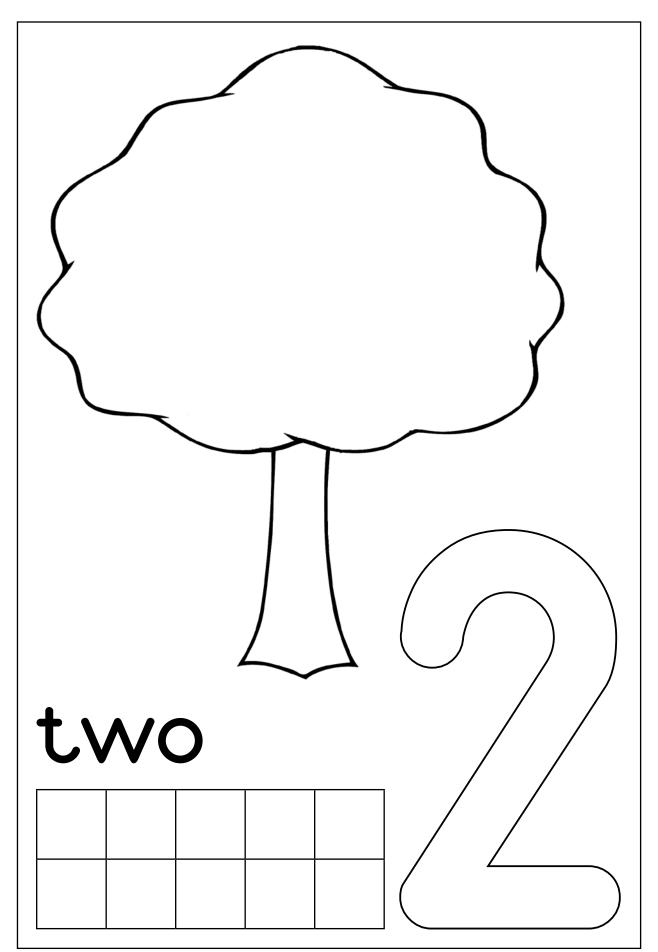
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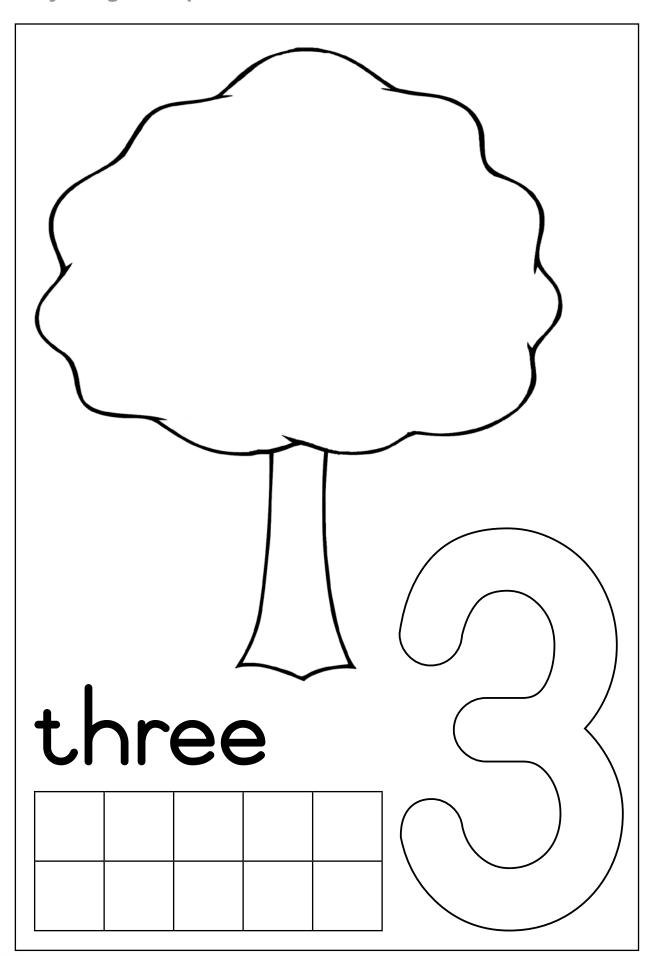


Playdough template: Number 1

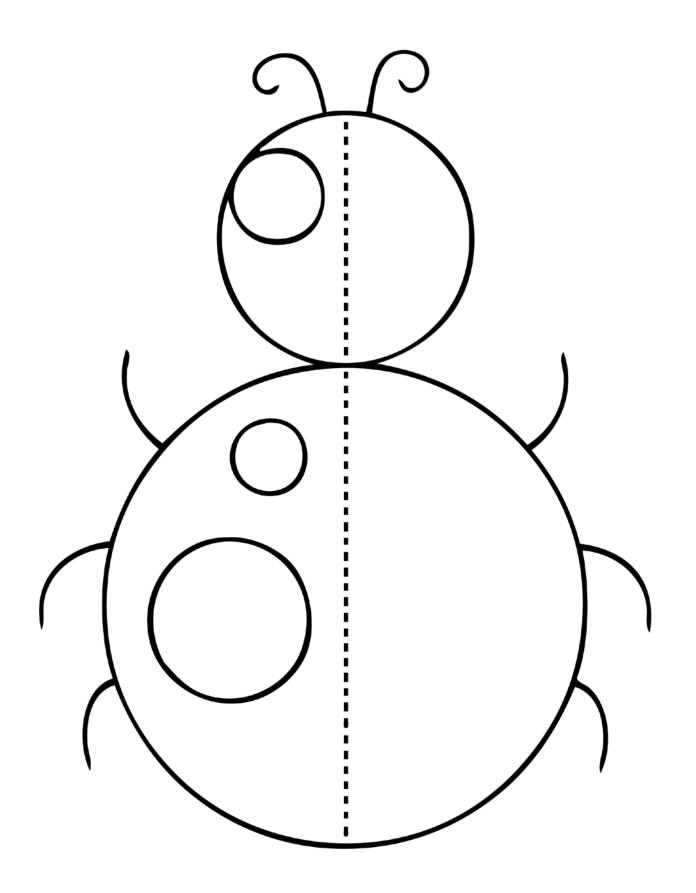


Playdough template: Number 2



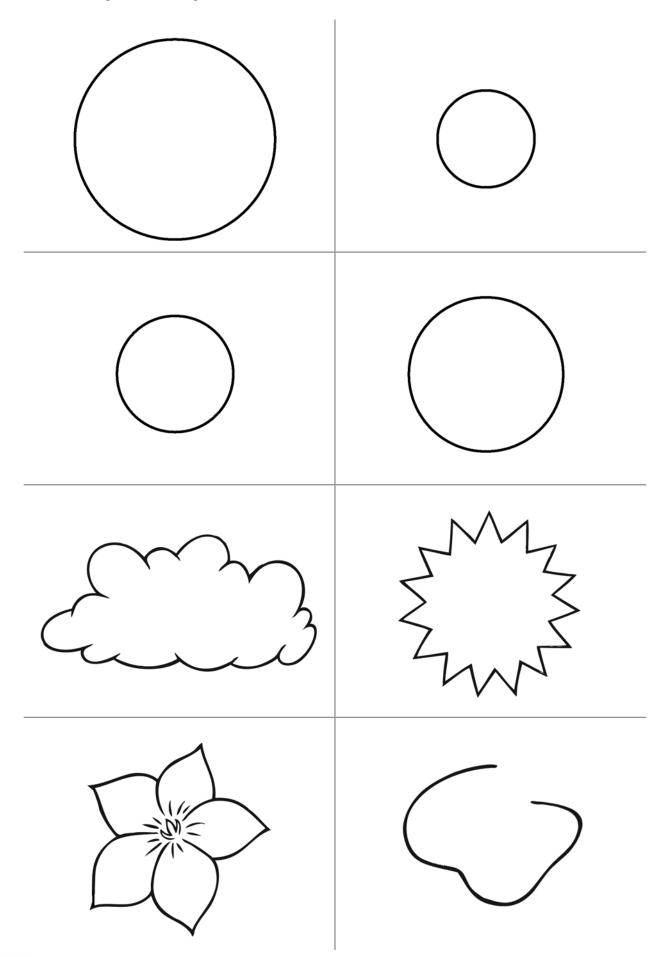


A beetle (Week 4)

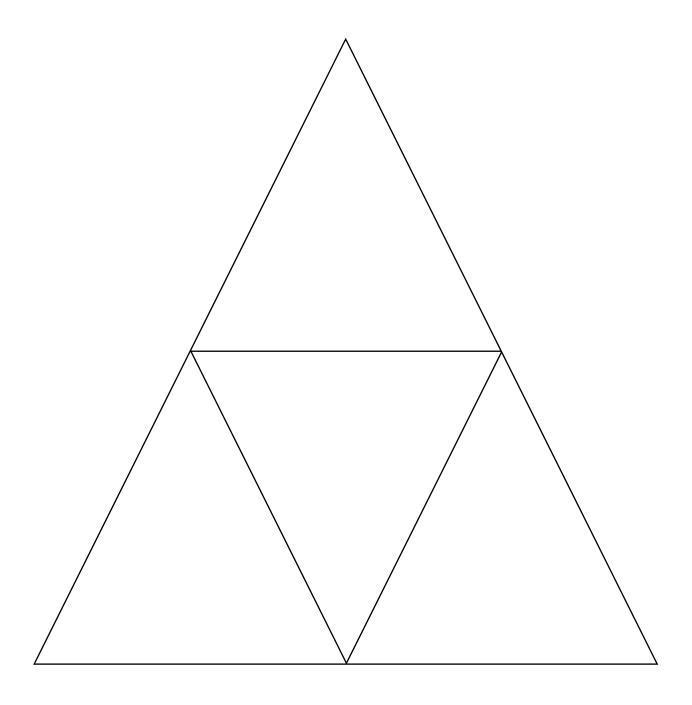




Circles (Week 4)



Triangles (Week 7)



Six-piece puzzle

