Grade R Mathematics Improvement Programme

Activity Guide: Term 4

English

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.

This edition of the mathematics materials has benefitted from collegial engagement with Wordworks colleagues and has been improved by their alignment with the materials of the Language Improvement Programme. It has been enriched by the work of officials of the Gauteng Department of Education's Early Childhood Development and Foundation Phase Curriculum Sub-Directorates at District and Provincial level who have made valuable contributions to the content of the materials and engaged constructively to ensure alignment with provincial policies, practices and values.

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Contents

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.

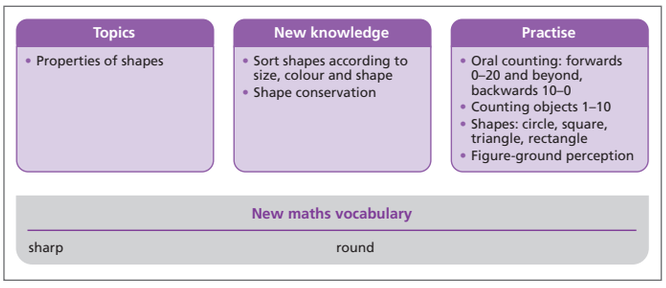
The Grade R Maths *Activity Guide: Term 4* offers a structure for teaching maths in the fourth term of Grade R by:

- 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 4

The following features form part of *Activity Guide: Term 4*:

- 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

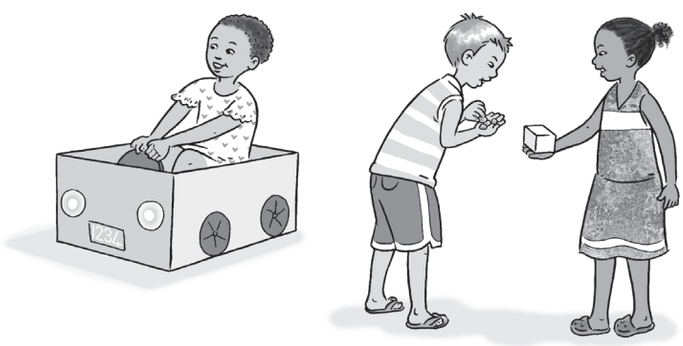
Learners need to know where materials belong. A shelf or table that is dedicated to maths equipment will help learners to be organised. Encourage learners to help each other during tidy-up time. Initially learners will need assistance and you will have to remind them where to put things, but they will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



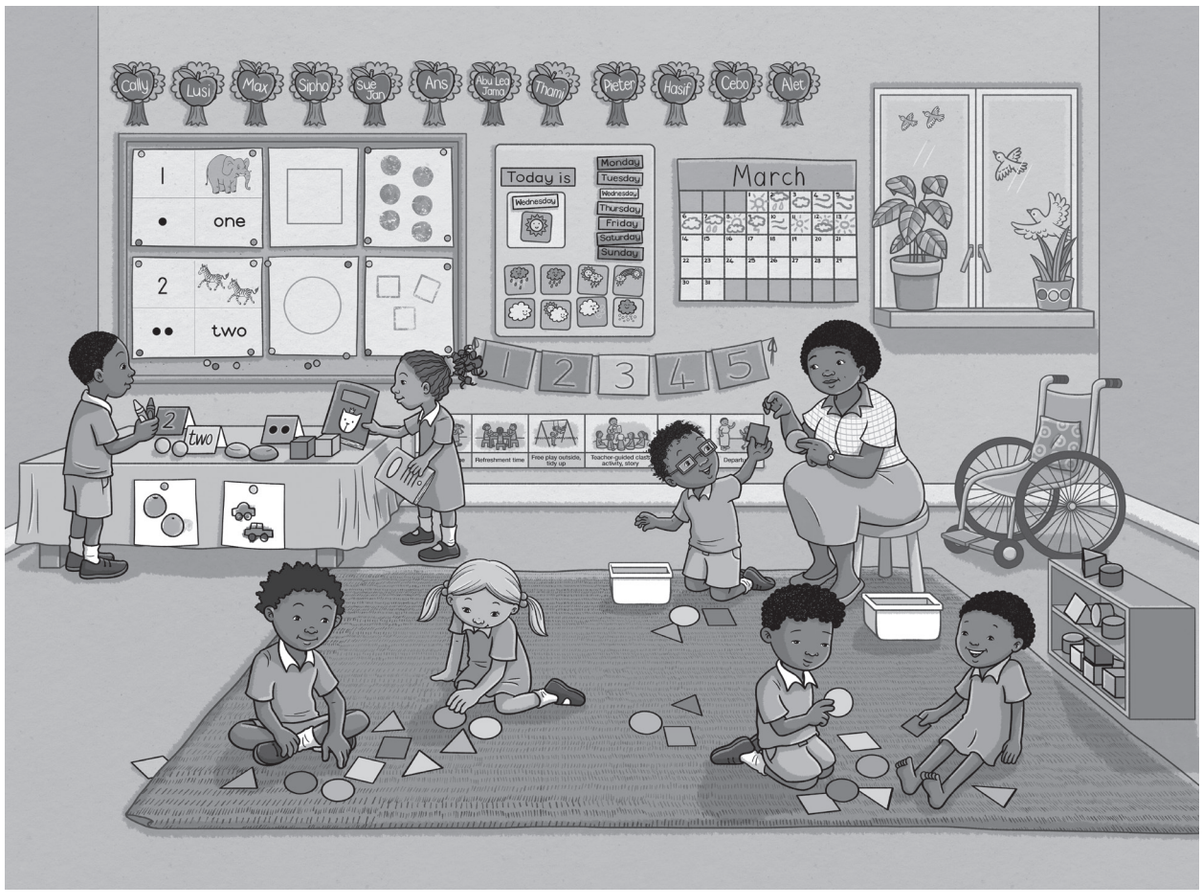
Assessment

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 93–94 of this guide is based on the content that has been taught in Term 4. This template can be used to record each learner's progress during the term.

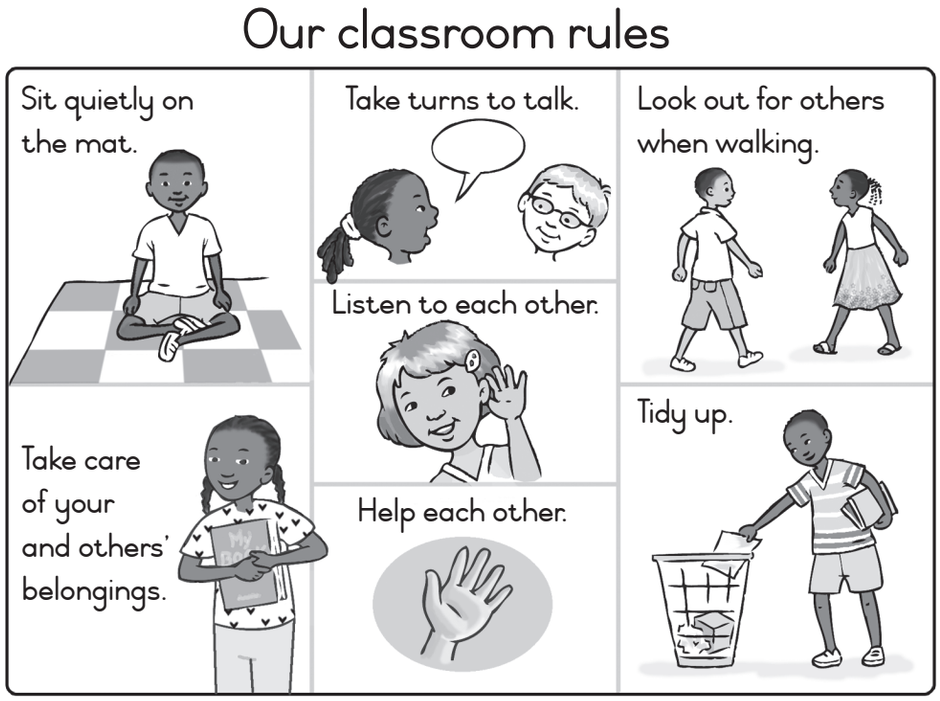
Grade R Maths in the classroom

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.

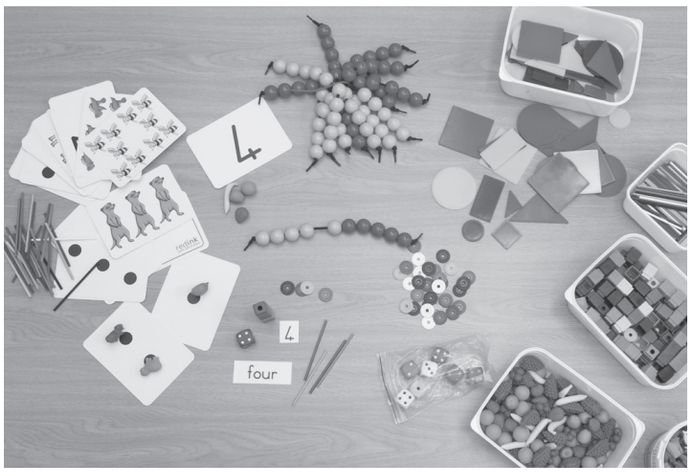


Resources for Grade R Maths

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

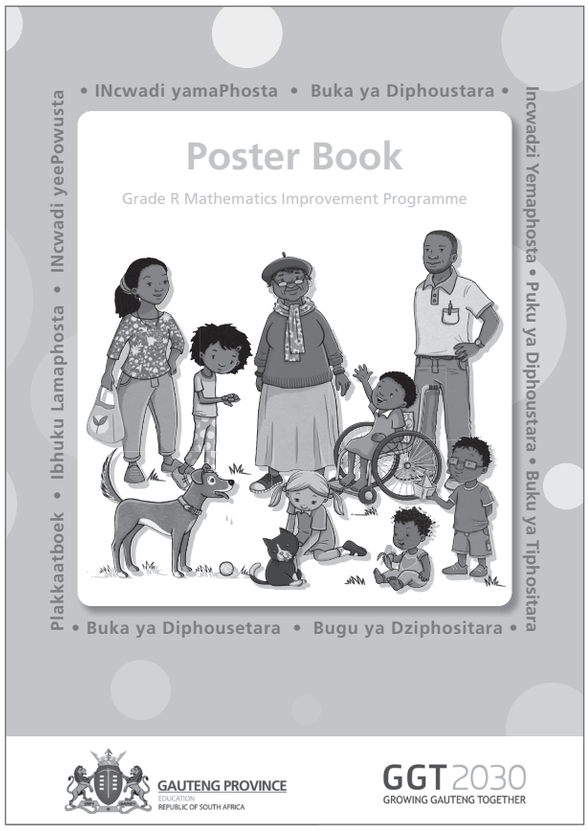
Other useful classroom resources for Grade R Maths teaching include:

- 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 4

Note: Content Area Focus and New knowledge are in purple. 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	Number 9 Counting in twos Oral counting: forwards 1–20 and beyond, backwards 10–1 Counting objects 1–10 Sequencing numbers 1–8 Ordinal numbers first to fifth Reinforce number concept 1–8	Number 10 Add, altogether Subtract/take away Oral counting: forwards 1–20 and beyond, backwards 10–1 Counting objects 1–10 Sequencing numbers 1–9 Reinforce number concept 1–9 Counting in twos	Number 0 Oral counting: forwards 1–20 and beyond, backwards 10–1 Counting objects 1–10 Sequencing numbers 1–10 Reinforce number concept 1–10 Counting in twos Add, subtract	Oral counting: forwards 0–20 and beyond, backwards 10–0 Counting objects 1–10	Oral counting: forwards 0–20 and beyond, backwards 10–0 Counting objects 1–10
2. Patterns, Functions and Algebra				Create, copy and extend an auditory pattern Draw patterns from objects Create, copy and extend patterns using concrete objects	
3. Space and Shape (Geometry)					Position of objects in relation to each other and to the learners Twenty-four-piece puzzles Position of objects in relation to each other Symmetry Direction: arrows Direction: left, right
4. Measurement					
5. Data Handling					

Content Area Focus	Week 6	Week 7	Week 8	Week 9	Week 10
1. Numbers, Operations and Relationships	Oral counting: forwards 0–20 and beyond, backwards 10–0 Counting objects 1–10 Sequencing numbers 1–10	Ordinal numbers: sixth Sharing without a remainder Double Oral counting: forwards 0–20 and beyond, backwards 10–0 Counting objects 1–10 Sequencing numbers 0–10 Ordinal numbers: first to fifth Counting in twos Add, subtract Half	Sharing with a remainder Oral counting: forwards 0–20 and beyond, backwards 10–0 Counting objects 1–10 Sequencing numbers 0–10 Reinforce number concept 0–10 Problem solving 1–10 Sharing without a remainder Half, double	Oral counting: forwards 0–20 and beyond, backwards 10–0 Counting objects 1–10	Oral counting: forwards 0–20 and beyond, backwards 10–0 Counting objects 1–10 Sequencing numbers 1–10 Problem solving 1–10 More, fewer, equal Estimating
2. Patterns, Functions and Algebra					
3. Space and Shape (Geometry)				Sort shapes according to size, colour and shape Shape conservation Shapes: circle, square, triangle, rectangle Figure-ground perception	
4. Measurement	Capacity Volume Length and time – height chart				
5. Data Handling					Pictograph using an increased set of data Collect, sort and represent collection of objects Analyse and report on data

Content Area Focus: Numbers, Operations and Relationships

Topics	New knowledge	Practise
• Recognise number symbols and number words • Describe, compare and order numbers	• Number 9 • Counting in twos	• Oral counting: forwards 1–20 and beyond, backwards 10–1 • Counting objects 1–10 • Sequencing numbers 1–8 • Ordinal numbers first to fifth • Reinforce number concept 1–8

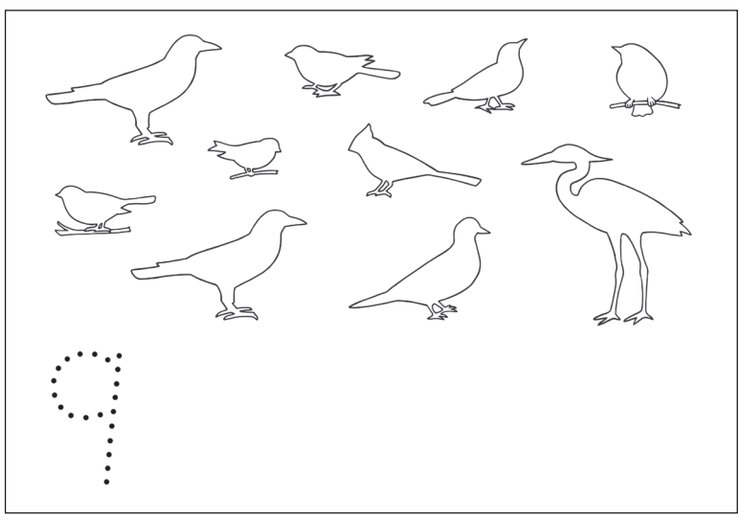
New maths vocabulary

nine	count in twos

Getting ready

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

- number frieze and house template for number 9 (page 101)
- box of classroom objects, 1–10 of a kind, for example, 1 doll, 2 blocks, 3 balls, 4 books, 5 pencils, and so on
- number 9 dot card, symbol card and word card
- number symbol card 9 (for number washing line)
- playdough template: Number 9 (page 104) – 1 per learner
- 8 farmyard race game boards (page 107)
- connect-the-dots activity sheets (page 108) – 1 per learner
- ice-cream activity (page 109) – 1 per learner
- bird activity sheets – 1 per learner.



Whole class activities

Day 1

What you need

- Number friezes 1–8
- Number frieze and house template for number 9 (page 101)
- *Number 9 story* (page 95)

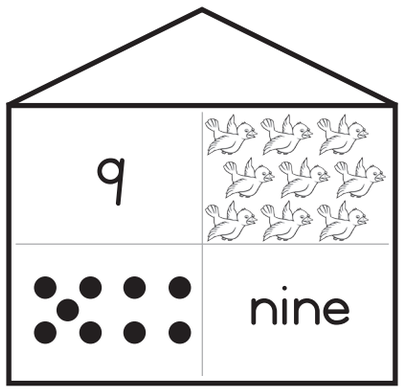
TIP
Remember to talk about the daily programme. Remember to do the calendar, days of the week, months of the year and birthday chart each day.

1. **Song/rhyme:** Learners sing a song or say a rhyme of their choice from previous terms.
2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Learners put their hands behind their backs. Call out a number. Learners hold up the correct number of fingers to represent the number.
4. **Introducing number 9:** Point to number friezes 1–8.

   Guiding questions:

   - How many animals do you think will live in the next house?
   - Will there be more or fewer than eight?

   Tell the *Number 9 story*. Show the parts of the number frieze as you build up the story of the birds and images of the house: the different representations of number 9 – the picture, the dots, the symbol and the word. Display the parts of the frieze in the animal house next to the number 8 on the wall in the maths area. Count the birds together. Learners practise the number 9 by writing it in the air or on the mat with their fingers.

   - How many birds can you count?
   - How many wings/beaks/legs does each bird have?
   - How many more birds are there than mice/monkeys, and so on?

   Learners dramatise the story.

   - How did the birds fly?
   - What did they do when they got to the house?
   - Can you show how they slept that first night?
5. **Small group activities:** Describe the activities at each workstation. Workstation 4 is a board game using a dice. Show learners how to throw the dice and move their animal counters the corresponding number of spaces on the board.

TIP Demonstrate how to play board games to make sure learners understand the rules of each game.

Day 2

What you need

- Rhyme: *Two little chickens* (page 95)
- Box of classroom objects, 1–10 of a kind, for example, 1 doll, 2 blocks, 3 balls, 4 books, 5 pencils
- Number 9 dot, symbol and word cards

1. **Rhyme:** Introduce the rhyme, *Two little chickens*.
2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Spread the objects from the box around the classroom. Learners take turns to find the objects and place them in the box as everyone counts.

   Guiding questions:

   - How many blocks/dolls/crayons, and so on, did you find?
   - Who found eight blocks/two dolls/ten crayons, and so on?
4. **Maths table:** Three groups of learners each collect nine similar small objects, for example, leaves, stones, crayons or blocks. Learners return to sit on the mat in their groups. Each group says what they have found and how many they have found. Give each group a number 9 dot, symbol or word card. One group at a time puts their objects and number 9 card on the maths table.

   Learners clap, jump, hop and step forward and backwards nine times.
5. **Small group activities:** Describe the activities at each workstation.

Day 3

What you need

- Rhyme: *Two little chickens* (page 95)
- Dot cards 1–9 (*Resource Kit*)

1. **Rhyme:** Say the rhyme, *Two little chickens*.

TIP Find or make up other songs or rhymes with a similar theme so that you include songs and rhymes in all the learners' home languages. For example, create rap songs to a musical beat.

2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Five learners stand in front of the class in a line and hold out their hands. Together count their hands in twos as you touch each of the five learners' hands, i.e. two hands, four hands, six hands, and so on. Repeat asking learners to count 2, 4, 6, 8, 10 as you touch their hands. Repeat with other groups of five learners counting ears, eyes, feet, legs, elbows, and so on.
4. **Dot cards and ordering 1–9:** Learners sit in a circle. Show them the dot cards 1–9 individually. They call out the number of dots on each card. Hold the cards up so that learners can see them.

Show a card with eight or fewer dots. Say, 'I wish I had nine dots.' One learner finds the dot card that is needed to make 9. Repeat with other dot cards.

Learners take turns to match dot cards to numbers on the friezes and place them in the correct order on the wall.

Guiding questions:

- How many dots do you see?
- How many more dots do we need to make 9?

Learners take turns to find the number symbol and number word to match each dot card.

5. **Small group activities:** Describe the activities at each workstation.

Day 4

What you need

- Song: *The ants go marching two by two* (page 95)
- Chalk/masking tape
- Number card 9 to add to the number washing line

1. **Song:** Sing the song, *The ants go marching two by two*.
2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Make a circle on the mat with chalk or masking tape to represent a hole in the ground. Six learners line up in pairs and dramatise the song, *The ants go marching two by two*. As each pair steps into the circle – 'go marching down' – other learners count them in twos.
4. **Practising and ordering numbers 1–9:** Take the number cards off the number washing line. Include the number card 9 and give them to nine learners. Learners arrange themselves in order from 1 to 9.

   Guiding questions:

   - Which number is first/second/fifth?
   - Which number is before 3/after 7/between 3 and 5, and so on?

   Learners peg their number symbols and number word cards in order from 1 to 9 on the number washing line.

   - Which number is first/before/after/between/comes next?
5. **Small group activities:** Describe the activities at each workstation.

Day 5

What you need

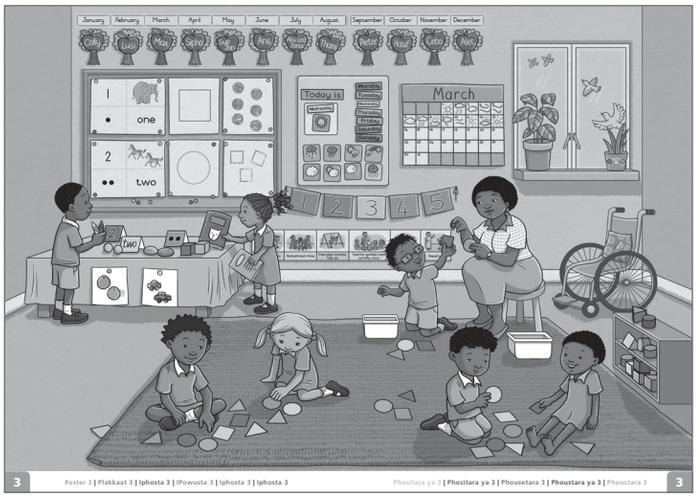
- Song: *The ants go marching two by two* (page 95)
- Masking tape/chalk
- Beanbag
- Poster 3

1. **Song:** Sing the song, *The ants go marching two by two* and dramatise it.

2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Use masking tape or chalk to create a large number jumping track of 10 blocks. Write the numbers from 1 to 10 in the blocks. A learner throws a beanbag and jumps to that number while other learners count. The learner stands on the number, throws the beanbag again and jumps on while the other learners count again.

   Guiding questions:

   - How many jumps must you make to get to number _____?
   - What number are you standing on?
   - Can you jump from 6 to _____?
   - How many jumps from 6 to _____?
4. **Practising 1–9:** Discuss Poster 3. Talk about what learners see in the picture.



   Guiding questions:

   - How many learners are wearing/not wearing shoes? How many pairs of shoes are there altogether?
   - How many zebras/shoes/triangles/trees can you see?
   - How many circles are there on the mat?
   - How many birds can you see? Can you see other birds? How many are there altogether?
   - How many wings/beaks are there on the four birds?
   - Malusi has six shapes in the box. He gives two shapes to his teacher. How many shapes are left in the box?
   - What can you see on the table? How many balls/stones/blocks can you see? How many altogether?
5. **Small group activities:** Describe the activities at each workstation.

Integration

Home Language: Language development through rhymes, Emergent Writing (reading number word cards), using vocabulary for quantity (more/less).

Life Skills: Physical development, for example, hopscotch.

Small group activities

Teacher-guided activity

What you need

- A tub per learner with:
  - Structure beads
  - 3 lids
  - 1 animal counter (different colour/type per learner)
- 80 coloured counters
- Farmyard race game board (page 107)
- Dice
- Playdough and mat per learner
- Playdough template: Number 9 (page 104) – 1 per learner

1. **Counting objects 1–10:** Learners take a handful of counters from the pile on the mat.

   Guiding questions:

   - How many counters do you think are in your hand?
   - Now count the counters in your hand. How many do you have?
   - How close was your guess?
   - How many do you need to take away or add to your handful to get 10 counters?

2. **Word problems:** Learners use counters or look at their own and their peers' shoes to help them solve word problems.

   Guiding questions:

   - There are two/three/four learners. Each learner has two shoes. How many shoes are there altogether?
   - If there are six shoes, how many learners can wear shoes?

3. **Structure beads:** Each learner holds six beads.

   Guiding questions:

   - Can you show me one more than six beads?
   - How many beads do you have?

   Learners each hold seven beads.

   - How many more beads do you need to get to 9?
   - Can you show me four fewer than nine beads?
   - How many beads do you have?

   Learners each hold five beads.

4. **Shake and break:** Learners place their two lids in front of them. They each count out nine counters. They shake their counters and break them into two groups. They place these on their lids as they have broken them up.

   Guiding questions:

   - How did you break up your counters?
   - How many counters do you have on both lids together?

Repeat the activity. Learners place another lid in front of them. They arrange their counters into three groups on the lids.

- How did you arrange your counters?
- Which lid has more/fewer counters?
- How many counters do you have altogether?
- Can you arrange your counters in a different way?

5. **Practising number 9 using playdough:** Learners use playdough to complete the playdough template for number 9.
6. **Farmyard race game:** Learners each take out their animal counter and place it on the zero block on the board. Each learner throws the dice. The learner with the highest number will play first in the game and the learners with the second highest, will play second, and so on. Learners throw the dice and move their animal counter on the board the same number of spaces as shown on the dice. They take turns and continue playing until all the learners reach the haystack/10. They need to throw the exact number on the dice to land on the haystack to finish the game.

   Guiding questions:

   - Who is the first/second/third/next person to have a turn?
   - How many spaces does your animal need to move?
   - How many more spaces must your animal move from where it is now to get to the end?

Check that learners are able to:

- count objects 1–10
- orally solve problems with numbers 1–9
- break down and build up numbers 1–9
- compare numbers in the range of 1–9
- count on starting with numbers other than 1

Workstation 1

What you need

- Bird activity sheet for each learner (see page 12)
- Crayons
- Number 9 symbol card (*Resource Kit*)

Learners circle nine birds and practise writing the number 9.

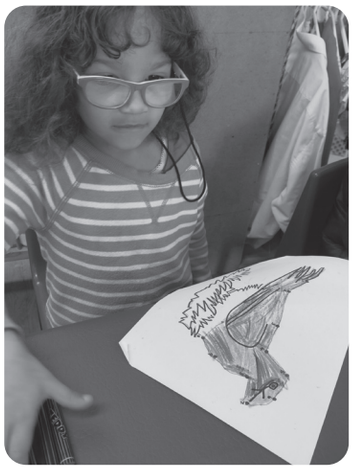
TIP Look for activities in the DBE workbook that provide opportunities for learners to match and write number symbols and words. Make these available for learners to select as part of free choice activities.

Workstation 2

What you need

- Connect-the-dots page for each learner (page 108)
- Crayons/paint
- Paper
- Cotton wool
- Glue

Learners connect the dots in the correct sequence and decorate their bird with cotton wool and paint or crayons.



Workstation 3

What you need

- Ice-cream activity sheet for each learner (page 109)
- Ice-cream number words cut out for each learner (page 109)
- Glue

Learners cut out the ice-cream scoop shapes, match the number words to the number symbols and then glue them in the spaces provided.

Workstation 4

What you need

- Farmyard race game board (page 107) – 1 per learner
- 8 dice
- 8 animal counters

Learners throw their dice and move their animal counter on the board the same number of spaces as the number shown on the dice. They continue in this way until they reach the haystack. They need to throw the exact number on the dice to land on the haystack to finish the game. If they don't get the exact number, they wait until their next turn and try again.

Content Area Focus: Numbers, Operations and Relationships

Topics	New knowledge	Practise
• Recognise number symbols and number words • Describe, compare and order numbers	• Number 10 • Add, altogether • Subtract/take away	• Oral counting: forwards 1–20 and beyond, backwards 10–1 • Counting objects 1–10 • Sequencing numbers 1–9 • Reinforce number concept 1–9 • Counting in twos

New maths vocabulary

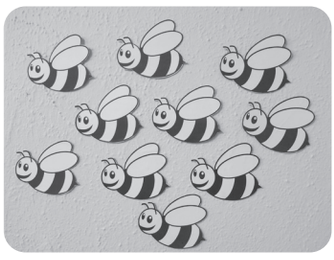
ten	make the number	How many to get to …?

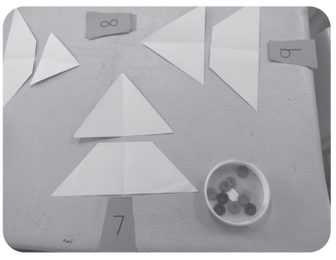
Getting ready

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

- number frieze and house template for number 10 (page 102)
- number 10 dot, symbol and word cards
- number symbol card 10 (for number washing line)
- number tracks 1–10

- farmyard race game (from Week 1): game boards, dice, 8 animal counters
- number puzzles 1–10 (page 110) – 1 per learner
- playdough template: Number 10 (page 105) – 1 per learner
- set of dot cards 1–10 – per pair of learners
- cardboard cut-outs of 10 bees
- a beehive made out of a cardboard box with a picture of a hive on the lid and the door cut out
- cardboard tree leaves – 2 per learner
- cardboard tree trunks labelled 1–10 – 1 set per learner.





Whole class activities

Day 1

What you need

- Song: *Ten little honey bees* (page 96)
- Chalk
- Number friezes 1–9
- Number frieze and house template for number 10 (page 102)
- *Number 10 story* (page 96)

1. **Song:** Sing the song, *Ten little honey bees*.
2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Draw 10 flower shapes on the floor. Play music and learners buzz around the room like bees. When the music stops, call out a number from 1 to 10. Learners group themselves like bees on a flower according to the number called out. The learners who are not able to join a group on a flower are out. Repeat.

Guiding questions:

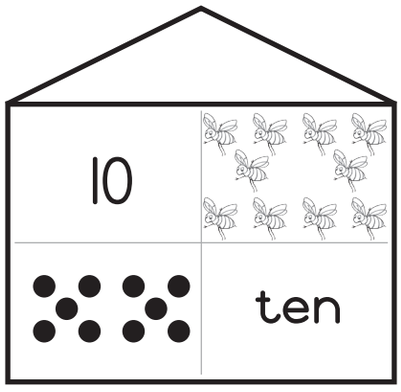
- How many flowers are there?
- How many bees on this flower?
- How many bees don't have a flower?

4. **Introducing number 10:** Point to number friezes 1–9.

Guiding questions:

- How many animals do you think will live in the next house? Why do you think that?
- Will there be more or fewer than nine?

Tell the *Number 10 story*. Show the parts of the number frieze as you build up the story of the bees and images of the house, and the different representations of number 10 – the picture, the dots, the symbol and the word. Display the parts of the frieze in the house on the wall in the maths area. Count the bees together.



TIP
Ask questions that encourage learners to share their ideas, such as:
- Why do you think that?
- How do you know?

- How many bees are there?
- How many wings/legs does a bee have?
- How many worker bees/queen bees are there?
- Which house has fewer animals than the bees' house?
- Which house comes before/after the giraffes' house?

Learners dramatise the story.

5. **Small group activities:** Describe the activities at each workstation.

Day 2

What you need

- Song: *Ten little honey bees* (page 96)
- Beehive
- Number 10 dot, symbol and word cards
- Number frieze for 10
- 10 cardboard cut-outs of bees

1. **Song:** Sing the song, *Ten little honey bees.*
2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Display the bees on the wall. Learners estimate how many there are. Count together as you place one bee at a time into the beehive.

Guiding questions:

- Can you show me with your fingers how many bees are in the hive?

TIP
Let learners estimate the number of objects there are in a group of objects before they count them, and then check their estimates. This helps them to develop a sense of the 'size' of the numbers they are counting.

4. **Adding and subtracting:** Take two bees out of the box.

Guiding questions:

- How many bees flew out of the hive?
- Can you show me with your fingers how many bees you think are left in the hive now?

Show learners the bees left inside the box and count together to check if they are correct.

Add two bees to the hive.

- How many bees do you think there are in the hive now?

Show learners the bees left inside the box. Count together to check if they are correct. Repeat.

5. **Maths table:** Three groups of learners collect 10 similar objects outside. Each group says what the objects are and how many they found. Give each group a number 10 dot, symbol or word card. One group at a time puts their objects and the number 10 cards on the maths table.

Learners practise the number 10 by writing it in the air or on the mat with their fingers.

6. **Small group activities:** Describe the activities at each workstation.

Day 3

What you need

- Song: *Ten little honey bees* (page 96)
- Dot cards 1–5
- Beehive and 10 cardboard bees
- Number dot cards 1–10

1. **Song:** Sing the song, *Ten little honey bees*.
2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Place the 10 bee cut-outs on the wall. Eight learners stand.

   Guiding questions:

   - How many learners do you think are standing?
   - Let's count them.
   - Is there a bee for each learner?
   - How many more learners do we need so that each learner has a bee?
4. **Combinations to 10; more/fewer:** Choose two pairs of learners. A learner from each pair chooses a dot card. Everyone counts together. A learner from each pair fetches the same number of bees as dots on the card from the hive. Together count the total number of bees collected by the two learners. Repeat with other learners.

   Guiding questions:

   - How many dots are there? How many bees must you fetch?
   - How many dots/bees are there altogether?
   - Look at the bees. How many more bees does _____ have than _____?
5. **Practising dot, symbol, number word cards:** Place dot cards where learners can see them, for example, on the wall. Learners take turns to choose two cards that make up the number as directed.

   Guiding questions:

   - Can you show me two cards that make up the number 10/8/4/3?

   Learners take turns to match the dot cards to the number symbol and number word cards on the frieze.
6. **Small group activities:** Describe the activities at each workstation.

Day 4

What you need

- Song: *Ten little honey bees* (page 96)
- Beehive and 10 cardboard bees
- Number washing line and number symbols 1–10

1. **Song:** Sing the song, *Ten little honey bees*.
2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Show learners the empty beehive. Learners count to 10 as you put the 10 bees in the beehive one at a time. Take out the bees. Put two bees in the beehive. Count again grouping the bees in twos as you count.

   Guiding questions:

   - How many bees are in the beehive?
   - If another two bees go into the hive how many will there be then? And another two?
4. **Number washing line:** Ask learners to help peg number symbol cards in order from 1 to 10 on the number washing line.

   Guiding questions:

   - Which card should come first/next?
   - Where should we put the number 9/10 on the number washing line?
   - Which number is bigger than/smaller than 3/4/5?
   - Which number comes before/after/between _____?
5. **Small group activities:** Describe the activities at each workstation.

Day 5

What you need

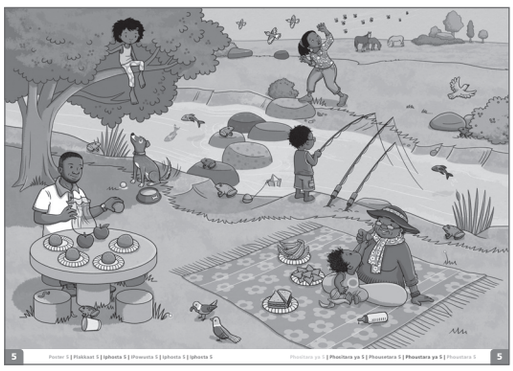
- Song: *The ants go marching two by two* (page 95)
- Masking tape/chalk
- Poster 5

1. **Song:** Sing the song, *The ants go marching two by two* and play the game from Week 1, counting in twos.
2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Learners clap 10 times, walk forward 10 steps, hop 10 times. Count in twos: clap quietly on one, loudly on two, quietly on three, loudly on four. Repeat to 10.
4. **Jumping track:** Use masking tape or chalk to create a large number jumping track of 10 blocks and write the numbers 1 to 10 in the blocks. Some learners jump in the blocks as the class counts forwards and backwards.

   Guiding questions:

   - Can you jump to 2?
   - If you make another two/three/four jumps, which number will you land on?
   - How many jumps to get to _____?
   - If you jump back one/two/three times, which number will you land on?

5. **Practising 1–10:** Discuss Poster 5. Talk about what learners see in the picture.



Guiding questions:

- How many bees/ samoosas/frogs/flying birds/fish/worms can you find?
- Can you see any other birds?
- How many birds are there altogether?
- There are four rolls on the table. Dad has one roll in his hand. How many rolls are there?
- There are five bananas on a plate. If Laylah eats two bananas, how many bananas are left on the plate?
- If there were 10 people at the picnic, how many more bananas would we need for each person to have a banana?
- If Malusi catches one fish with each rod, how many fish will he have?

6. **Small group activities:** Describe the activities at each workstation.

TIP

Use opportunities that arise during the day to develop learners' ability to solve problems, for example: There are eight paint jars and only six paintbrushes. How many more paintbrushes do we need?

Integration

Home Language: Listening and Speaking: interpreting and responding to oral instructions, storytelling.

Life Skills: Dramatisation during music and movement lessons (learners fly in and out of an imaginary beehive).

Small group activities

Teacher-guided activity

What you need

- Number washing line with numbers 1–10
- 5 red pegs to attach to numbers 2, 4, 6, 8, 10
- 200 counting sticks
- 20 plastic lids
- Story: *The beehives* (page 96)
- 5 number tracks (page 20)
- 55 Unifix blocks
- Tub per learner with:
  – 10 coloured counters
  – Structure beads
- Playdough and mat per learner

1. **Word problems:** Learners use their counters or their fingers to solve the problems.

Guiding questions:

- The bees find four blue flowers and three red flowers. How many flowers did they find?
- Ten bees live in the beehive. Four bees fly out looking for flowers. How many bees are left in the beehive?

TIP
Remember to take off the coloured pegs after the session in preparation for the next group.

2. **Counting in twos:** Count in twos on the number washing line. Replace the pegs with coloured pegs on each count, for example, on 2, 4, 6, 8 and 10.
3. **Groups of 10:** Tell the story, *The beehives*.

   Learners work in pairs. Each pair gets 50 counters (bees) and 5 lids (beehives). They put their 'bees' (counters) in groups of 10 into their 'beehives' (lids).

   Guiding questions:

   - How many beehives do you have?
   - How many bees are there in each beehive?
4. **Structure beads:** Learners use structure beads to count.

TIP Structure beads help learners to understand that one number may be made up of a combination of two or more numbers.

Guiding questions:

- Show me nine beads. Now show me six beads. How many fewer beads is this than 9?
- Show me five beads. Let's make 10 beads. How many more beads do you need?
- Hold five beads in your hand. Add another three beads. How many beads do you have?
- Hold seven beads in your hand. Now show me 10 beads. In order to have 10, how many more did you need to add?
- Hold 10 beads in your hand. To have four beads, how many do you need to take away?

5. **Number track towers:** Place the number tracks and Unifix blocks on the mat. Learners take turns to say the number and place a tower built from the correct number of Unifix blocks on each square.

   Guiding questions:

   - How many Unifix blocks did you use for the tower on that number square?
   - Which tower has more/fewer blocks?
   - How many more/fewer blocks does number 3 have than number 4, and so on?
   - Which number is the biggest/smallest? How do you know?
6. **Practising number 10 using playdough:** Learners make the number symbol 10 out of playdough. Support learners who are ready to write 10.

Check that learners are able to:

- solve addition and subtraction problems that involve numbers 1–10
- count in twos
- make and describe different pairs of numbers that combine to make a number
- match number symbols and Unifix blocks

Workstation 1

What you need	
• Playdough	• Playdough template: Number 10 (page 105) – 1 per learner

Learners use playdough to complete the template.

Workstation 2

TIP

When you ask learners to explain how to play a game, it will give you insight into whether they understand the rules.

What you need	
Per learner: • Farmyard race game board (page 107)	• Dice • Animal counter

Learners throw their dice and move their animal counter on the board the number of spaces shown on the dice. They continue in this way until they reach the haystack. They need to throw the exact number to land on the haystack to finish the game. If they don't, they continue to throw until they throw the exact number needed.

Workstation 3

What you need	
• 2 green tree parts cut out of cardboard per learner	• 10 tree trunks with number symbols 1–10 • 10 coloured counters per learner

Learners choose one tree trunk to place below the tree and then decorate the tree with that number of counters, for example, 2 and 4. Repeat with other tree trunks.

Workstation 4

What you need
• Number puzzles 1–10 (page 110)

Learners complete the puzzles in pairs.

Content Area Focus: Numbers, Operations and Relationships

Topics	New knowledge	Practise
• Recognise number symbols and number words • Describe, compare and order numbers	• Number 0	• Oral counting: forwards 1–20 and beyond, backwards 10–1 • Counting objects 1–10 • Sequencing numbers 1–10 • Reinforce number concept 1–10 • Counting in twos • Add, subtract

New maths vocabulary

zero	nought	nothing

Getting ready

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

- number friezes 1–10
- number frieze and house template for number 0 (page 103)
- number symbol and number word cards 0–10
- number symbol card 0 (for number washing line)
- blank dot card
- 10 pictures of large objects
- playdough template: Number 0 (page 106) – 1 per learner
- ramp and balls (see Workstation 4)
- number track 0–10

- number jumping track from 0–10 (in the shape of a worm).

Whole class activities

Day 1

TIP
Move the numbers on the number washing line up so that there is space for the 0 number symbol card.

What you need

- Song: *Ten green bottles* (page 96)
- Number friezes 1–10
- Number frieze and house template for number 0 (page 103)
- *Number 0 story* (page 97)
- Number symbol card 0 (number washing line)
- Cardboard box

1. **Song:** Sing the song, *Ten green bottles*.
2. **Oral counting:** 1–20 and beyond, 10–1.
3. **Counting objects 1–10:** Learners take turns to count items in the classroom, for example, windows, doors, 8 school bags, 10 pencils.

   Guiding questions:

   - How many pencils do you think there are in this tin?
   - Do you think there are more than 10 school bags or fewer than 10 school bags?

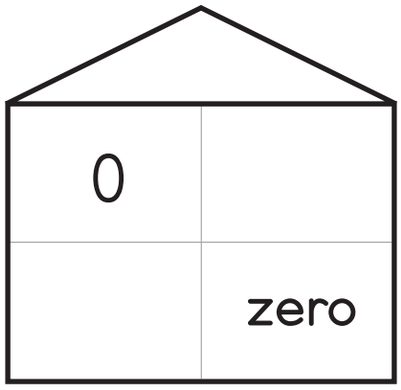
TIP
Use the word 'zero' often when referring to the symbol '0' and use 'nought' during the day when talking about 'nothing' or 'no objects'.

4. **Introducing 0:** Point to number friezes 1–10.

   Guiding questions:

   - Do you think there could be any more houses? Why/why not?
   - Where would we put the houses on our frieze if we could have more houses?

   Tell the *Number 0 story*. Display the animal house with the number symbol and number word *before the number 1 frieze* on the wall in the maths area.

   Learners dramatise the story. Use an empty cardboard box to represent the empty house. Choose learners to play the parts of the elephant, giraffes, birds and other animals.

   Learners practise the number 0 by writing it in the air or on the mat with their fingers.

5. **Adding 0 to the number washing line:** Show learners the 0 number card. Ask where they think this should go on the number washing line. Ask a learner to come and put this on the number washing line.

   Guiding questions:

   - Why did you put the number zero there?
   - What number comes after zero?
   - Who can fetch me zero books?

6. **Small group activities:** Describe the activities at each workstation.

Day 2

What you need

- Song: *Ten green bottles* (page 96)
- 10 balls
- 2 hula hoops
- 0 symbol and number word cards (*Resource Kit*)
- An empty bowl for the maths table
- Blank dot card

1. **Song:** Sing the song, *Ten green bottles* and dramatise with 10 learners.
2. **Oral counting:** 0–20 and beyond, 10–0. Point to the number washing line as you count.

TIP
Count from 0 to 20 as learners move to their workstations and when walking to the toilet.

3. **Counting objects 1–10:** Place the two hula hoops on the mat. Place 10 balls inside one hoop and leave the second hoop empty.

   Guiding questions:

   - How many balls do you think there are in this hoop?

   Learners count the balls in the hoop. Take seven balls out of the first hoop and put them inside the second hoop.

   - If we take seven balls from this hoop and put them in the empty hoop, how many balls are left in this hoop?

   Learners count the balls in each hoop. Take the three balls from the first hoop and put them into the second hoop, leaving the first hoop empty.

   - How many balls are there in each hoop?
   - What happens when you take away all the balls from the one hoop and put them into the other hoop?

4. **Maths table:** Place the empty hoop on the maths table to represent the number 0.

TIP
There are many words that mean the same as zero, for example, *nought, nothing, nil*. Build on these words as learners use them, for example, ask what other word they could use instead of 'nothing'. Point out that these words all mean zero.

   Guiding questions:

   - How many balls are there inside the hoop?

   Show learners a blank dot card.

   - How many dots are there on this dot card?

   One learner puts the blank card, the symbol and word card for zero on the maths table next to the empty bowl.

   Learners go on a counting walk and point out a given number of objects (including zero).

   Guiding questions:

   - Can you see:
     - A bus? How many wheels does it have?
     - A girl with two ponytails?
     - A house? How many roofs does it have?
     - A parking area with no cars?

5. **Small group activities:** Describe the activities at each workstation.

Day 3

What you need

- Song: *Ten green bottles* (page 96)
- 11 tubs
- 55 counting sticks
- Number dot cards 1–10 (*Resource Kit*)
- Blank dot card
- Number symbol cards 0–10

1. **Song:** Sing the song, *Ten green bottles*.
2. **Oral counting:** 0–20 and beyond, 10–0.

TIP Counting backwards is a meaningful way for learners to learn about zero.

3. **Counting objects 1–10:** Learners sit in a circle. They take turns to take a card from the pack. All learners show as many fingers as dots on the card, counting together. If the card shows 0, learners show a fist to represent 0 fingers.
4. **Dot cards and ordering numbers 0–10:** Show learners dot cards 1–10. Hold up the blank dot card representing 0.

   Guiding questions:

   - How many dots are there on this dot card?

   Stick a dot card from 0 to 10 on the outside of each tub and place the related number symbol inside each tub. Place the tubs on the mat in random order. Learners take turns to place counting sticks in the tubs according to the number of dots.

   Put the 7, 4, 9 and 0 tubs on the mat. Learners take turns to arrange the containers from the smallest to the biggest number.

   - How can we put these containers in order from the smallest to the biggest number?
   - Which is the smallest/biggest number?

   Repeat using other combinations as well as ordering from the biggest to the smallest number.
5. **Small group activities:** Describe the activities at each workstation.

Day 4

What you need

- Song: *Ten green bottles* (page 96)
- 10 pictures of large objects
- A cloth
- Number washing line and number cards 0–10

1. **Song:** Sing the song, *Ten green bottles*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Put 10 pictures of objects on the wall and cover them with a cloth. Uncover the pictures.

   Guiding questions:

   - How many pictures of objects are on the wall?

Remove one/two/three of the pictures and repeat the process. Continue until there are no pictures.

- How many pictures are on the wall now?

4. **Practising and ordering numbers 0–10:** Take the number cards off the number washing line except for 3 and 7. Give the nine cards you removed to the learners. Learners take turns to peg the numbers on the number washing line in the correct order.

   Guiding questions:

   - Where should we place the number 1/5/10? How do you know?
   - Which number comes before/after _____?
   - Where should we place the number 0? Why?

5. **Small group activities:** Describe the activities at each workstation.

Day 5

What you need

- Song: *The ants go marching two by two* (page 95)
- Number symbol cards 0–10
- Masking tape/chalk
- Poster 6

1. **Song:** Sing the song, *The ants go marching two by two,* with actions.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners stand on one side of the class. One learner displays a number card. The other learners hop the number of times shown on the card and count aloud. If 0 is shown, learners stay where they are without hopping.

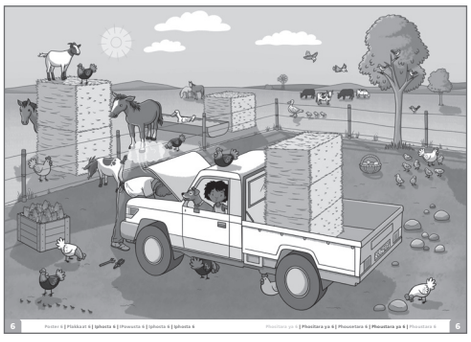
TIP
Instead of hopping learners can clap their hands.

4. **Jumping track:** Use masking tape or chalk to create a number jumping track from 0–10 on the mat. Learners take turns to stand in the 'zero' block and jump as directed.

   Guiding questions:

   - Can you jump to number 6/4/7, and so on? (Show learners number symbols.)
   - How many times should you jump to get to this number? (Show the 0 number symbol.)
   - Why didn't you jump?

5. **Practising 0–10:** Discuss Poster 6. Talk about what the learners can see.



   Guiding questions:

   - How many wings does the chicken/duck/bird have?
   - How many wings does the horse have?
   - How many birds/apples do you see in/on the tree?

- Can you find an animal that has spots/no spots?
- How many animals can you see that have tails?
- How many tails does Malusi have?

6. **Small group activities:** Describe the activities at each workstation.

Integration

Home Language: Listen and respond to simple instructions, vocabulary building.

Life Skills: Problem solving and sharing reasons for solutions, manipulation of objects that are different colours, sizes and shapes.

Small group activities

Teacher-guided activity

What you need

- Symbol card and word card for 0 – one pair per learner
- Egg cartons (12-cup) with counters in some of the cups – 1 per learner
- Number track 0–10
- 55 Unifix blocks
- 50–60 coloured counters
- Playdough and mat per learner
- A tub with 10 animal counters – 1 per learner

TIP

Learners can use counters or their fingers to represent the bees. This helps them to prepare to work with problems at an abstract level.

1. **Word problems:** Learners place their tubs in front of them and count out 10 counters.

   Guiding questions:

   - There are three bees on a blue flower and six bees on a red flower. How many bees are there altogether?
   - Two of the bees on the blue flower went back to the hive. How many bees are on the blue flower now?
   - Three bees from the red flower flew back to the hive. How many bees are on the red flower now?

2. **Counting objects:** Learners watch as you place five counters in one hand and four counters in the other hand. Show them your closed hands and say, 'I have five counters in this hand and four counters in my other hand.'

   Guiding questions:

   - How many counters do you think I have altogether?
   - (Open one hand. Learners count the counters in that hand.) How many counters are there?
   - (Open the other hand. Learners count the counters in that hand.) How many counters are there?
   - How many counters are there altogether?

   Repeat using other combinations up to 10, including one empty hand.

3. **Matching an empty set with 0 symbol and word cards:** Put 1–10 counters in some of the egg carton cups, leaving a few cups empty. Learners place the 0 number symbol and number word next to the cups that are empty.

Guiding questions:

- Which cup do you think has the most/least counters? Why do you think that?
- Which cups are empty? How many counters are in those cups?
- How many empty cups are there altogether?

4. **Addition and subtraction:** Learners place their counters on the mat and turn their tubs upside down. They place five counters under their tub.

Guiding questions:

- How many counters are under your tub?

Learners take two counters from under their tubs and place them on top of their tubs.

- Now how many counters are under your tub? How many are on top? How many are there altogether?

Repeat using different combinations to 10.

Learners place all their counters on top of their tubs.

- How many counters are under your tub? (None)

TIP

Include examples of adding to and subtracting zero, for example: 'Place zero counters on top of your tub.'

5. **Number track towers:** Place the number track and Unifix blocks on the mat. Learners take turns to say the number on each square of the track and to place a tower built from the correct number of Unifix blocks on the square.

Guiding questions:

- How many Unifix blocks did you use for the tower on that number square?
- Which group has more/fewer blocks?
- How many blocks are on the zero?

6. **Practising number 0 using playdough:** Learners make the number symbol 0 out of playdough. Support learners who are ready to write 0.

Check that learners are able to:

- count groups of objects 1–10
- orally solve problems with numbers 0–10
- break down and build up numbers 0–10
- compare numbers in the range of 0–10
- recognise, match and name number symbols and number words for zero

Workstation 1

What you need	
• Playdough	• Playdough template: Number 0 (page 106) – 1 per learner

Learners use playdough to complete the template. They create baskets, boxes, nests, and so on, with nothing inside.

Workstation 2

What you need	
• 1 ice tray • 200 coloured counters (*Resource Kit*)	• Dice with the 6-dot side covered with a sticker and replaced with '0'

The first learner rolls the dice and places that number of counters in one of the ice-tray compartments. The next learner does the same, placing that number of counters in the next compartment. Repeat.

Workstation 3

What you need	
• A tub with 10 fruit counters – 1 per learner	• Dice

Learners place their counters in a row. They take turns to roll the dice and subtract from their row the same number of counters as shown on the dice and place them in their tubs. The first learner to place all their counters in their tub wins.

Workstation 4

What you need	
• 6 tennis balls • Ramp (for example, a wide plank)	• 4 tubs covered in different coloured paper

Place the ramp at a raised angle of about 20 cm from the floor. Place the tubs on the floor at the high end of the ramp. Learners take turns to roll their balls up the ramp and try to land their balls in the tubs. They count the total number of balls that landed in the tubs.

Content Area Focus: Patterns, Functions and Algebra

Topics	New knowledge	Practise
• Geometric patterns: make, copy and extend patterns	• Create, copy and extend an auditory pattern • Draw patterns from objects	• Oral counting: forwards 0–20 and beyond, backwards 10–0 • Counting objects 1–10 • Create, copy and extend patterns using concrete objects

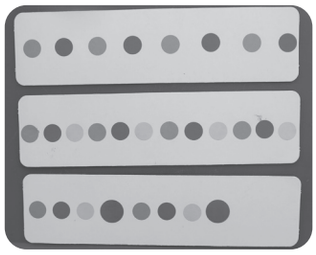
New maths vocabulary

sequence	make the pattern

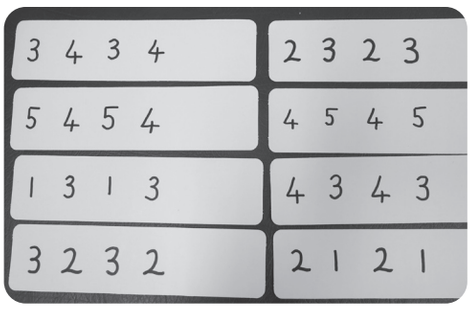
Getting ready

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

- 3 large colour pattern cards:
  - green and red
  - green, red and yellow
  - green, red, yellow and blue



- 30 rhythm instruments that can be sorted into 4 groups (one group should have 10 instruments)
- basket/clear container with 10 objects, some with repeating patterns and some with patterns that do not repeat, for example, wrapping paper, stickers, fabric offcuts, tiles, necklaces, bracelets, pinecones, flowers, socks, shells, and so on
- paper cut into the shape of a T-shirt – 1 per learner
- 8 number pattern cards, for example, 2 1 2 1; 4 3 4 3



- geometric paper shapes: circle, square, rectangle, triangle – 6 of each per learner
- 8 pattern cards (see Workstation 2).

Whole class activities

Day 1

What you need

- Rhyme: *It's pattern time* (*Activity Guide: Term 3*, page 96)
- Small table/box
- 3 pattern cards:
  - Green and red
  - Green, red and yellow
  - Green, red, yellow and blue
- 1 red, green, blue and yellow counting stick per learner

1. **Rhyme:** Say the rhyme, *It's pattern time,* with actions.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Place 10 green, 5 red, 2 blue and 10 yellow counting sticks in separate piles on a small table or box so that all the learners can see them.

   Guiding questions:

   - How many green/red/blue/yellow sticks do you think there are?
   - Which colours are there 0 sticks of?

   Choose a learner to count and hold each pile as the class counts together.

   - How many sticks are left on the table/box?

TIP
If learners have mastered these pattern skills, extend the activity using two attributes, such as colour and shape or size.

4. **Extending patterns:** Learners sit in a circle. Place 30 green and 30 red sticks in the middle of the mat. Each learner takes one green stick and one red stick. Show a pattern card with the two colours. One learner starts by placing the correct colour stick on the mat. Learners take turns to continue the pattern until everyone has had a turn – the pattern will continue around the circle of learners.

   Guiding questions:

   - Who can tell me what the pattern is?
   - What colour stick will come next in this pattern?
   - What colour should we add next to extend the pattern?

   Give each learner a yellow stick. Show a pattern card with three colours and repeat the activity.

   - Can you make a pattern with three colours?

   Give each learner a blue stick and repeat with four colours.

5. **Small group activities:** Describe the activities at each workstation.

Day 2

What you need

- Song: *Clap, snap and stamp* (page 97)

1. **Song:** Sing the song, *Clap, snap and stamp* with the following pattern: clap, snap fingers, stamp foot; clap, snap fingers, stamp foot, and so on.
2. **Oral counting:** 0–20 and beyond, 10–0.

When counting beyond 20, help learners understand that the numbers follow the same pattern as before. Remember that some learners may need more practice than others.

3. **Counting objects 1–10:** Learners stand in a line. They stamp their feet as they count from 1–10 and put their arms up in the air when they get to 10. They change directions and repeat the activity with another body movement, for example, clapping hands.
4. **Copying and extending sound patterns:** Learners stand in a circle. Create a pattern from the song, *Clap, snap and stamp*: Clap, clap, snap fingers, snap fingers, stamp foot, stamp foot (AABBCC). Learners each have a turn to repeat the pattern until everyone has had a turn.

   Guiding questions:

   - What should come first/next in this pattern?

   Repeat with an ABC movement, for example, jump, step to the right and turn around; jump, step to the right and turn around.

   - Can you copy these movements with your body?
   - Can you see a pattern? What is the pattern?
   - What is the pattern sequence?
   - How can you extend this pattern?

   Repeat with an ABAB pattern with actions, for example, hop, stand with legs astride; hop, stand with legs astride.
5. **Small group activities:** Describe the activities at each workstation.

Day 3

What you need

- Song: *Clap, snap and stamp* (page 97)
- Chalk/koki pens
- A3 paper
- Number symbol and number word cards 0–10
- An A4 sheet of paper

1. **Song:** Sing the song, *Clap, snap and stamp* with an ABBABB pattern (clap, snap fingers, snap fingers; clap, snap fingers, snap fingers).
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners clap their hands, snap their fingers or stamp their feet the number of times displayed on a number symbol card. If a '0' is shown, learners don't do any actions.

TIP

Help learners to explain the rule for the patterns they are copying or creating. This helps to develop their thinking skills.

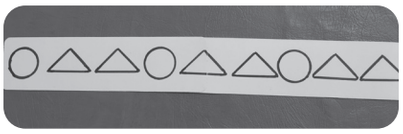
4. **Identify the pattern rule:** One learner creates his/her own sound pattern, for example, clap, clap, snap fingers, snap fingers; clap, clap, snap fingers, snap fingers. Other learners say what the pattern is and repeat it.

   In pairs, learners create their own sound patterns. One learner makes up a sound pattern and the partner explains what the pattern is and repeats it. Then they reverse roles.

   Guiding questions:

   - What can you tell me about the pattern?
   - Can you make a pattern like this?

5. **Geometric patterns:** Draw a shape pattern on the board or a strip of paper, for example, circle, triangle, triangle; circle, triangle, triangle. Make at least three repetitions of the pattern.



   Guiding questions:

   - What can you tell me about this pattern?
   - What shape comes before/after the first circle/second triangle?
   - What is the third shape in the pattern?
   - What shape is first/last?

   Cover the last three shapes with a sheet of paper.

   - What shape comes next in the sequence?
   - Can anyone draw what comes next in the pattern?

   A few learners draw the three hidden shapes on the paper according to the sequence.

6. **Small group activities:** Describe the activities at each workstation.

Day 4

What you need

- Song: *Clap, snap and stamp* (page 97)
- 30 rhythm instruments to create 4 groups of instruments (one group must have 10 instruments)
- Pattern cards with colour dots from Day 1

1. **Song:** Sing the song, *Clap, snap and stamp* with an AABAAB pattern (clap, clap, snap fingers; clap, clap, snap fingers).
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners count together as four learners sort the musical instruments into piles according to the type of instrument.

   Guiding questions:

   - How many tambourines/drums/cymbals/triangles/shakers are there?
   - Are there more/fewer drums or shakers? How many more/fewer?
   - Which group has 10 instruments?

TIP

Learners can explore a variety of patterns with their instruments, for example, AB, AAB, ABB, ABC.

4. **Musical patterns:** Play a musical pattern on a musical instrument, for example, soft, soft, loud, loud; soft, soft, loud, loud.

   Guiding questions:

   - What can you tell me about the pattern?
   - Can you use your hands and feet to create the same pattern?

   Change the pattern, for example, soft, loud, loud; soft, loud, loud, and repeat.

   - How has the pattern changed?

   Pass out rhythm instruments to four groups. Groups take turns to repeat the two musical patterns.

   - Can you repeat/extend the pattern?

   Show learners a colour dot pattern card and discuss the pattern. Groups take turns to copy and extend the pattern using their musical instruments. Groups use the pattern to create their own sound patterns, for example, loud for red, soft for yellow; fast for red, slow for yellow.

   - Tell me about the pattern.
   - Can you make the same pattern?
   - How does it sound?

   Other groups repeat each group's sound pattern with their instruments. Groups take turns to create and demonstrate their own sound patterns with their instruments. Other groups join in.

5. **Small group activities:** Describe the activities at each workstation.

Day 5

What you need

- Song: *Clap, snap and stamp* (page 97)
- A basket/clear container with 10 objects with repeating and non-repeating patterns
- Poster 4

1. **Song:** Sing the song, *Clap, snap and stamp*. Learners suggest their own pattern sequences.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Display the basket of collected objects.

   Guiding questions:

   - How many objects do you think are in my basket?
   - Have I got enough to give everyone in the class one object?
   - How can we find out?

   Count the objects as you hand each object to a different learner.

   - Were there enough objects?
   - Are there more objects or more learners?

4. **Identifying patterns:** Set out the collected objects on the mat. Discuss what each object looks like and what patterns learners can see.

   Guiding questions:

   - Can you see an object with a pattern? Why do you think it is a pattern?
   - What part of the pattern repeats?
   - What comes next in the pattern?
   - How many times does the pattern repeat?
   - Can you see anything that does not have a pattern?

5. **Discussing patterns:** Discuss Poster 4.

   Guiding questions:

   - What patterns do you see in the picture?
   - Why do you think it is a pattern/not a pattern?
   - Where else can we find patterns like these?
   - Can you think of patterns on animals/in nature? Can you describe one?

6. **Small group activities:** Describe the activities at each workstation.

Integration

Home Language: Sequencing daily events and parts of a story.
Life Skills: Identifying and describing patterns in their environment, development of drawing skills (fine motor development), problem-solving and social skills, developing sense of rhythm (music).

Small group activities

Teacher-guided activity

What you need

- 10 red counting sticks
- A tub of sticks per learner: 4 red, 4 blue, 4 green, 4 yellow, 4 orange
- Attribute blocks (*Resource Kit*)
- Sheet of paper per learner
- Crayons

1. **Counting objects 1–10:** Put the pile of 10 red sticks on the mat.

   Guiding questions:

   - How many learners are in our group?

   Count together.

   - If I want to give everyone one stick, how many sticks do I need?
   - Are there enough red sticks for everyone to get a stick?
   - Are there enough for everyone to get two sticks?

Choose a learner to share the sticks so that each learner gets the same number of sticks.

- How many more sticks do we need so that you each have the same number of sticks?

2. **Word problem:** Learners can use counters or their fingers to solve the problem.

   Guiding questions:

   - Malusi is fishing. There are nine fish in the river close to him. Four fish swim away. How many fish are left for Malusi to catch?

3. **Making, copying and extending patterns:** Make a pattern using counting sticks, for example, blue, yellow; blue, yellow; blue, yellow. Learners copy the pattern.

   Guiding questions:

   - Can you make a line of sticks just like mine?
   - Tell me about your line of sticks.

   Make a different pattern with the learners using three colour sticks in a line, for example, red, blue, green; red, blue, green.

   - Which stick comes next/after/before? How do you know?
   - Can you show me the part of the pattern that repeats?
   - How can we extend the pattern?

   Learners work in pairs. They make a pattern with their sticks and their partner copies and extends their pattern.

   - Can you describe your pattern?
   - What makes it a pattern?

   Make a pattern using attribute blocks, with at least three repetitions of the pattern, for example, circle, circle, rectangle; circle, circle, rectangle; circle, circle, rectangle.

TIP When using attribute blocks for pattern activities, focus on what they look like, for example, colour, shape and size and not on their properties, for example, sides and corners.

   - What can you tell me about this pattern?

   Learners draw the pattern sequence on a sheet of paper, repeating it two or three times.

4. **Creating, copying and extending sound patterns:** Clap an ABB pattern: clap, slap, slap; clap, slap, slap. Learners repeat the pattern and then extend it two or three more times.

   Guiding questions:

   - Can you make this pattern?
   - How would you extend this pattern?

   Learners make the same pattern with their sticks, for example, orange, green, green. Repeat with AAB and ABC patterns.

5. **Making and copying body patterns:** One learner turns his/her back to the rest of the group. Learners arrange themselves to create a pattern, for example, hands in the air, hands on knees; hands in the air, hands on knees.

TIP Learners can create patterns using a variety of materials, for example, cubes, keys, small toys and attribute blocks.

Guiding questions:

- What pattern has the group made?

Learners describe the pattern they created.

Check that learners are able to:

- copy a given pattern, including an auditory pattern
- describe a pattern
- extend a pattern by telling you what comes next
- draw a copy of a given pattern

Workstation 1

What you need

- Geometric paper shapes
- Paper
- Glue
- Crayons

Learners start a pattern with two or three colours or shapes. They glue them along the page border and then extend the pattern around the page until their frame is complete.

Write learners' names on their pages and let them draw or paint a picture in their frames during free play.

Workstation 2

What you need

- Egg carton strip with 6 cups – 1 per learner
- 8 pattern cards
- Tubs with different materials that match the colours of the pattern cards, for example, Unifix blocks, fruit counters, coloured counters

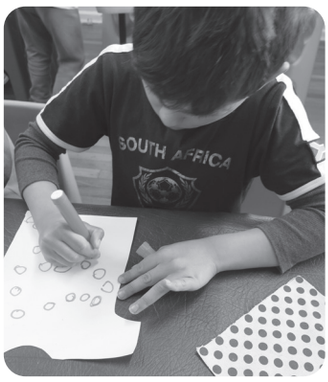
Learners choose a pattern card and copy the pattern by placing the objects in the row of the egg carton strip.

Workstation 3

What you need

- Paper cut into the shape of a T-shirt – 1 per learner
- Offcuts of clothing fabric
- Crayons or paint

Learners look at the designs on the fabric and copy a pattern onto their T-shirt template.



Workstation 4

What you need

- Number pattern cards
- Unifix blocks

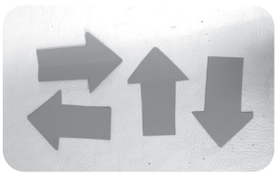
Learners choose a number pattern card and build towers to represent the patterns with the Unifix blocks.

Content Area Focus: Space and Shape (Geometry)

Topics	New knowledge	Practise
• Position, orientation and views • Following direction	• Position of objects in relation to each other and to the learners • Twenty-four-piece puzzles	• Oral counting: forwards 0–20 and beyond, backwards 10–0 • Counting objects 1–10 • Position of objects in relation to each other • Symmetry • Direction: arrows • Direction: left, right

New maths vocabulary

far, further	away from	beside	high	near
close, closer	turn	low	sideways	



Getting ready

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

- everyday symmetrical objects, for example, pair of sunglasses/glasses, pair of scissors, leaf, flower, vase, spoon
- 4 direction arrow cards: left, right, up, down
- twenty-four-piece puzzles (page 112).

Whole class activities

Day 1

What you need

- Rhyme: *Going on a lion hunt* (*Activity Guide: Term 3*, page 99)
- Groups of everyday classroom objects (1–10)
- Cardboard box
- Beanbag
- Chairs – 1 per pair of learners

1. **Rhyme:** Say the rhyme, *Going on a lion hunt*, with actions. (The positional concepts of over, under and through are a focus of this rhyme.)
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Place groups of objects (1–10) in different places in the classroom. Play 'I spy …'. Learners take turns to find the objects and bring them to the mat.

TIP Find different positions for the objects and model as many position words as possible.

Guiding questions:

- How many blocks/paintbrushes/balls on top of a shelf/under a chair/on a window ledge/near the door can you see?

4. **Position:** With a partner, learners stand in different positions as instructed.

Guiding instructions:

- Stand one behind the other so that the taller person is behind/in front.
- Stand so that you are facing each other/facing away from each other.

In pairs, learners stand next to a chair.

- Stand/sit behind/on your chair.
- Sit on/climb under your chair.
- Put your foot/hand under/on your chair.
- Put the hand you write with on the chair. Is this your left or right hand?

Learners take turns to toss the beanbag into the box. They describe where the beanbag lands, for example, in/out of/next to/in front of/far away from/beside the box.

- Where did the beanbag land?

5. **Small group activities:** Describe the activities at each workstation.

Day 2

What you need

- Rhyme: *Going on a lion hunt* (*Activity Guide: Term 3*, page 99)
- Props for dramatisation, for example, cushions, chair, table, rope, blanket
- Number symbol cards 0–10
- Poster 2

1. **Rhyme:** Say the rhyme, *Going on a lion hunt*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Flash a number symbol card. Learners count as they rock their bodies from side to side according to the number on the card. If you show the '0' number symbol card, learners stand still.
4. **Position of objects:** Set out props and dramatise *Going on a lion hunt*. On the command of 'freeze', learners stop and say where they are, for example, behind the lion, in the river, outside the cave, in front of the forest, next to the tree, at the top of the stairs.

Guiding questions:

- Where are you standing? Where is the tree/lion/river?
- What is behind/in front of/next to you?
- Where can you move to so that you are out of the lion's reach?

TIP
If learners respond by just saying 'here' or 'there', ask questions and model positional words to encourage them to describe where they or objects are.

Discuss Poster 2. Learners identify objects in relation to other objects and people.

- Where is Malusi?
- What is above/below/behind Malusi?
- Which is closer to Malusi: the ladder or the sandbox?
- Where is the pink-and-white striped bucket?
- Can you show me three pairs of shoes? Which shoes are closer/further away?
- Which is the middle tyre?
- What is the little boy next to this tyre doing?
- Where are the birds? Which bird is flying high above the trees?
- What can you see under/on the bench?

5. **Small group activities:** Describe the activities at each workstation.

Day 3

What you need

- Song: *The directions song* (page 97)
- 5 balls
- Elastic/wool bands – 1 per learner
- Piece of rope

1. **Song:** Sing, *The directions song*.
2. **Oral counting:** 0–20 and beyond, 10–0.

TIP
Do this activity outdoors with all learners, if possible.

3. **Counting objects 1–10:** Ten learners stand in pairs facing each other. Learners take turns to bounce the balls to one another while the rest of the group counts. Learners try to reach the count of 10. Repeat with other groups of learners until everyone has had a turn.
4. **Left and right:** Turn around so that your back is facing the learners. Lift your left hand and tell learners to do the same. Repeat with your right hand.

TIP
When learners put on their shoes, use the words 'left' and 'right' when guiding them to put their shoes on the correct feet.

Guiding questions:

- Which hand is this?
- Can you show me your left/right hand?

Place a loose elastic/wool band on each learner's right hand.

- Is the band on your left or right hand?
- Is this the hand you write with?

Play 'Sizwe says':

- Put your right hand above your head.
- Hop high on your left foot.

- Jump twice to your right.
- Put your left hand on your right shoulder.
- Put your right foot in front of you.
- Put your hands behind your back.
- Jump high.

Leave the bands on the learners' wrists for the remainder of the week.

5. **Follow directions:** Lay a rope out on the floor in the classroom. Learners line up on one side of the rope facing forward and follow instructions that involve directions.

Guiding instructions:

- Jump to the left/right over the rope.

While staying in a line, learners follow instructions as they go on a walk outdoors, for example:

- Go forwards until you reach the door.
- Turn left and walk 10 steps.
- Stop. Look up. Look down. Look left. Look right.
- Turn right and walk forwards until you get outside.
- Hop forwards four times.
- Walk backwards/sideways three steps.

6. **Small group activities:** Describe the activities at each workstation.

Day 4

What you need

- Song: *The directions song* (page 97)
- 3 identical musical instruments, for example, drums
- A scarf

1. **Song:** Sing, *The directions song*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Play a number of beats (1–10) with a musical instrument. Learners count as they jump. When the music stops, they freeze and say how many times they have jumped altogether. Repeat with learners taking turns to play the instrument.
4. **Where does the sound come from?** Learners sit in a circle on the mat. A learner is blindfolded with the scarf and sits in the middle. Point to one learner who says, 'Where am I?' The learner in the middle points in the direction of the voice.

Guiding questions:

- Can you point in the direction of the learner?
- Who is _____ pointing towards?
- Tell _____ where _____ is sitting as she/he can't see. (for example, in front of the desk/near the blue table)

Repeat the activity.

Give three of the learners an instrument while the remaining learners close their eyes. Whisper instructions to the three learners with instruments about where to stand in the classroom. Each learner takes a turn to play their instrument. The other learners point to where the sound is coming from.

Guiding questions:

- Where is the sound coming from?
- Can you point in the direction of the sound?
- Is the sound to your left/right/in the middle of the room/at the back?

Repeat with other learners taking a turn to play the instruments.

TIP

Increase the number of learners standing in different positions in the classroom and playing an instrument to make the activity more challenging.

5. **Small group activities:** Describe the activities at each workstation.

Day 5

What you need

- Rhyme: *Going on a lion hunt* (*Activity Guide: Term 3*, page 99)
- Number symbol, dot and word cards (0–10)
- Beanbag
- Everyday symmetrical objects
- Masking tape
- Attribute blocks (*Resource Kit*)
- Magazines

1. **Rhyme:** Say the rhyme, *Going on a lion hunt*, with actions.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners sit in a circle. Each learner is given a number symbol, dot or word card. One learner throws a beanbag to another learner. The learner who threw the beanbag must clap and count the number on the catcher's card. Repeat until each learner has had a turn.

4. **Symmetry:** Learners sit on the mat. Show them the symmetrical objects, one at a time.

Guiding questions:

- What do you notice about these objects?
- What other objects or animals look exactly the same on both sides?

Make a vertical line (line of symmetry) down the mat with masking tape. Ask learners to place each object along the line of symmetry so that the sides are exactly the same.

- Are both sides exactly the same? How can you tell?

Remove the objects. Place a triangle shape along the line on one side.

- What shape is this?

Ask a learner to place an identical triangle on the other side of the line in exactly the same position.

- Do you think both sides of the line are exactly the same? How do we know?

Place another shape on one side of the line. A learner chooses the same shape and places it on the other side of the line in the same position so that both sides are exactly the same (symmetrical). Repeat with other learners.

Learners get into smaller groups. Each group looks for examples of symmetry in pictures in a magazine. They show the class.

- What makes both sides of the picture exactly the same?

5. **Small group activities:** Describe the activities at each workstation.

Integration

Home Language: Listening and responding (rhythm, rhymes and songs), vocabulary for position, Emergent Reading and Writing (direction: left to right).

Life Skills: Physical direction, spatial orientation and directionality (for example, outdoor games and walking from one place to another), responding physically to instructions.

Small group activities

Teacher-guided activity

What you need

- Direction arrow cards
- Chalk
- Number symbol cards (0–10)
- Beanbag
- A board per learner (to press on)
- A tub per learner with:
  - 1 animal counter
  - Crayons and paper

1. **Word problems:** Learners can use counters or their fingers to solve the problems.

Guiding questions:

- Six learners are playing outside with a ball and two learners are playing hopscotch. How many learners are playing outside?
- If three of the learners playing with the ball go inside, how many learners will be left outside?
- If the two learners playing hopscotch go inside, how many learners are left outside?

2. **Counting objects 1–10:** Draw a hopscotch grid (0–10) with chalk. Learners take turns to choose a number symbol card. They stand in the 0 square, say the number on the card and throw their beanbag to the matching square on the hopscotch grid. Learners hop to their square saying each of the numbers they hop on, on their way there.

3. **Left and right:** Learners place their left/right hand on different parts of their bodies.

   Guiding questions:

   - Can you put your left/right hand on your head/behind your back/ between your knees?
   - Can you put your left/right hand on your left/right ear/foot/knee?

   Learners move their eyes as directed: to the left, right, up, down, from side to side.

TIP

Ask learners to tell you where objects are inside and outside the classroom throughout the day.

4. **Position and direction:** Show the learners the direction arrow cards one at a time. Learners move their animal counter in the direction shown.

   Learners draw a picture following your verbal instructions:

   - Draw a sun at the top of the page.
   - Draw a house in the middle of the page, at the bottom.
   - Draw a tree to the left of the house.
   - Draw two children standing next to the tree.
   - Draw something far away from the house.

   Guiding questions:

   - Where is the house/sun/tree?
   - What is above/below/next to the house?
   - When you look at your picture, what is to the left of the house?
   - Where are the children standing?
   - What is in the middle of your picture?
   - What have you drawn far away?

Check that learners are able to:

- count objects (hops) from 1–10
- orally solve problems with numbers 0–10
- follow left/right directional instructions
- use positional and directional language

TIP
Use the game, 'Twister' for a free choice activity or during outdoor play.

Workstation 1

What you need	
• Playdough	• Playdough boards

Learners use the playdough to create an object, for example, nest, box, basket, house, car, bag and then one or more other objects to go inside, outside, next to, under, on top of the first object. They tell each other a story about the objects they have made using 'position' vocabulary.

Workstation 2

What you need	
• 1 ice tray • 200 coloured counters	• Dice with the 6-dot side covered with a sticker and replaced with '0'

The first learner rolls the dice and places that number of counters in one of the ice-tray compartments. The next learner does the same, placing that number of counters in the next compartment. Repeat.

Workstation 3

What you need	
• Leaves – 3 per learner • Glue • Crayons	• Scissors • Paper

Learners cut the leaf in half and stick one half on their page. They draw the other half.

TIP If you cannot find symmetrical leaves, cut out symmetrical pictures from magazines.

Workstation 4

What you need	
• Twenty-four-piece puzzles (page 112)	• Assortment of other puzzles

Learners build puzzles.

Content Area Focus: Measurement

Topics	New knowledge	Practise
• Capacity and volume	• Capacity • Volume	• Oral counting: forwards 0–20 and beyond, backwards 10–0 • Counting objects 1–10 • Sequencing numbers 1–10 • Length and time – height chart

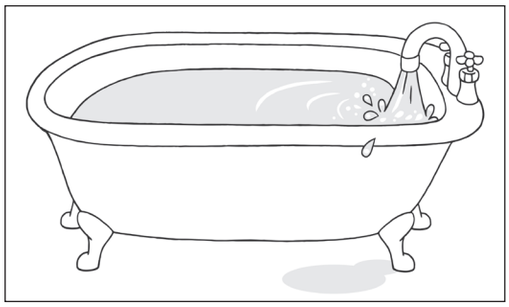
New maths vocabulary

pour	nearly full	wide	how much does _____ hold?
fill	nearly empty	narrow	

Getting ready

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

- picture of a bathtub



- containers: bucket, jug, plastic containers of different sizes
- 8 sets of 6 picture cards of cups with different levels of sand (see Workstation 3).

Whole class activities

Day 1

What you need

- Rhyme: *Five elephants in the bathtub* (page 97)
- Story: *The Elephant's bath* (page 98)
- Pictures: elephant frieze card, bathtub
- Containers: bucket, jug, plastic containers of different sizes

1. **Rhyme:** Say the rhyme, *Five elephants in the bathtub*.
2. **Oral counting:** 0–20 and beyond, 10–0.

3. **Counting objects 1–10:** Learners take turns to touch the number of objects in the classroom as directed, for example, two learners touch four books; one learner touches 10 crayons, and so on.
4. **Exploring capacity and volume:** Tell the story, *The Elephant's bath*. After Part 1 of the story, show the pictures of the elephant and the bathtub and discuss the story.

   Guiding questions:

   - Do you think the elephant can fit in the bathtub?
   - Would there be enough space? Why/why not?
   - What do you think will happen to the water when he gets into the bathtub?

   Tell Part 2 of the story. Show the different-sized containers and discuss how best to put out the fire.

   - How could we put out the fire?
   - Which container should we use? Why?
   - What else could we use?

   Tell Part 3 of the story. Show the different-sized containers and discuss them.

   - What could the elephant use to fill up the swimming pool?

   Learners put the containers in order from those that can hold the least to those that can hold the most amount of water (smallest to largest capacity).

TIP
Ask questions to make sure learners understand that the bucket can hold more than the cups or jugs so they would not need as many bucketfuls for the same amount of water.

TIP Your selection of containers must clearly show which holds more/less water.

   - Which container do you think will hold more/less water?
   - How can we find out?
   - Can you put the containers in order of size? Which will come first/second, and so on?

5. **Small group activities:** Describe the activities at each workstation.

Day 2

What you need

- Song: *There's a hole in my bucket* (page 98)
- See-through jug, 10 small stones, 10 large stones
- Plastic containers of different sizes
- 3 large containers of water
- 3 plastic mats

1. **Song:** Sing the song, *There's a hole in my bucket* verses 1 and 2.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Place 10 small stones in the jug.

   Guiding questions:

   - How many stones do you think there are in the jug?
   - Whose guess was closest?

Remove the stones and place 10 larger stones in the jug.

- How many stones do you think there are in the jug now?
- Do you think there are more or fewer than before?

4. **Measuring capacity and volume:** Show learners the assortment of containers. Discuss what they are used for.

   Guiding questions:

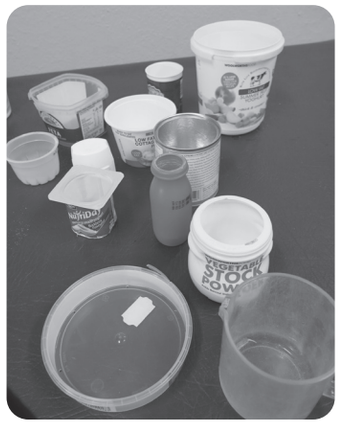
   - Where have you seen containers like these before at school/at home?

   Hold up individual containers.

   - What is this called?
   - What do we use it for?

   Learners predict how many smaller containers are needed to fill a larger container.

   - How many spoons/cups/bowls of water do you think it will take to fill the bowl/bucket/jug?
   - How can we find out?
   - How will we know when it is full?



   Set up three stations with different containers and water, and divide learners into three groups. Learners in each group explore filling the different containers with water.

   - How many spoons/cups/bowls did you use?
   - Did you use more spoons or more cups?

5. **Small group activities:** Describe the activities at each workstation.

Day 3

What you need

- Song: *There's a hole in my bucket* (page 98)
- 1 large blue and 1 small red plastic cup
- Plastic containers of different sizes (from Day 2)
- 3 large containers of water (from Day 2)
- 10 stones
- Jug
- Basin of water
- 3 plastic mats

1. **Song:** Sing the song, *There's a hole in my bucket* verses 3 and 4.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10; problem solving:** Learners count eight stones as you put them into the jug.

   Guiding questions:

   - How many stones will there be if I put two more stones into the jug?
   - How many stones will be left if I take out three stones?
   - How many more/fewer stones do I need to put into/take out of the jug to make ten/four/six stones in the jug?

4. **More, less, the same:** Show learners the large (blue) cup and the small (red) cup.

Guiding questions:

- Do you think the blue cup will hold more/less/the same amount as the red cup?
- How can we test this?

Encourage the learners to come up with ideas to test their suggestions.

One learner fills the smaller (red) cup with water and pours the contents into the larger (blue) cup.

- What did you all notice?
- How many red cups did _____ use to fill the blue cup?
- Can _____ pour all the water from the blue cup into the red cup? What will happen?

Another learner fills the larger (blue) cup and pours the contents into the smaller (red) cup.

- What does it mean if all the water in the blue cup won't fit into the red cup?
- How did we test which cup holds more/less?

Repeat the Day 2 activity with three stations. Groups explore how to fill and pour water from one container to another.

5. **Small group activities:** Describe the activities at each workstation.

TIP
Make sure learners fill the containers to the top. You can use sand instead of water. If you are using water, ask learners what the water could be used for afterwards so that it is not wasted.

TIP
Some learners will count 'how many' cups/spoons, and so on, it takes to fill each of the containers. This links with Numbers, Operations and Relationships.

Day 4

What you need

- Song: *Long and short* (*Activity Guide: Term 2*, page 103)
- Ball of string
- Height chart from Terms 1 and 2
- Tape measure
- Stickers/labels
- Koki
- Prestik

1. **Song:** Sing the song, *Long and short*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Together count 10 learners to stand in a line in front of the class. Give four learners each a long piece of string. Give six learners each a short piece of string.

Guiding questions:

- How many long/short pieces of string are there?

Learners count together.

Repeat with another 10 learners and different lengths of string.

4. **Measuring height:** Look at the height chart from Terms 1 and 2 and discuss it.

   Guiding questions:

   - Who was/is the tallest/shortest in the class?
   - How can we find out if you are taller now?

   Learners use string to measure the height of one half of the class and add their measurements to the height chart.

   - Is there another way we could measure your heights?

   Show learners the tape measure.

> **TIP** Learners can use the tape measure to measure each other during free choice time.

   - How can we use a tape measure?

   Measure the height of a few learners using the tape measure. Write the centimetres next to each piece of string.

   - How tall are you?
   - Are you shorter/taller or the same height as the last time we measured?

5. **Small group activities:** Describe the activities at each workstation.

Day 5

What you need

- Song: *Long and short* (*Activity Guide: Term 2*, page 103)
- Ball of string
- Height chart from Terms 1 and 2
- Tape measure
- Stickers/labels
- Koki
- Prestik

1. **Song:** Sing the song, *Long and short*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Repeat the counting activity from Day 4. Collect all the pieces of string.

   Guiding questions:

   - How many long/short pieces of string were there?

4. **Measuring height:** Look at the height chart. Estimate who in the remaining half of the class will be shorter or taller than the learners measured on Day 4.

   Guiding questions:

   - Who do you think will be the tallest/shortest today?
   - How did we measure the learners' heights yesterday?

   Learners measure the second half of the class using the string.

   - Are you shorter/taller or the same height as the last time we measured?
   - Who is now the tallest/shortest in the whole class? Who is second tallest/shortest?
   - Which teacher is shorter/taller than me?

5. **Small group activities:** Describe the activities at each workstation.

Integration

Home Language: Compare and discuss to solve problems.
Life Skills: Estimating and measuring (for example, during snack time), sand play and water play.

Small group activities

Teacher-guided activity

What you need

- A tub per learner:
  - 10 Unifix blocks
  - Number symbol cards 0–10
  - 1 plastic/paper cup
  - Paper and a crayon
- Dots cards 1–10
- Blank dot card
- 3 different-sized plastic drinking cups/glasses: 1 large and narrow, 1 small and narrow, 1 medium and wide
- Water/cool drink bottle
- Plastic food containers, for example, lunch boxes – 1 per learner
- Large container of sand
- Large jug of water

1. **Word problem:** Learners solve the word problem using their fingers or counters and/or paper and crayons or small white boards.

   Guiding questions:

   - Seven animals are swimming in the river. Three animals are hippopotamuses. The rest of the animals are elephants. How many elephants are swimming in the river?

2. **Counting objects:** Hold up two Unifix towers: one with six blocks and the other with four blocks.

   Guiding questions:

   - Which tower has more/fewer blocks?

   Learners use the Unifix blocks in their tubs:

   - How many blocks do you need to make a tower that has the same number of blocks as this one? (six blocks)
   - And this one? (four blocks)
   - How many blocks will there be if you join both your towers?

   Learners make a tower that has five fewer blocks.

   - How many blocks does your tower have now?

3. **Ordering numbers 0–10:** Together order the dot cards 0–10. Learners count Unifix blocks to match the number of dots. They each order their number symbol cards 0–10.

   Guiding questions:

   - Which card comes first/next?

4. **Measuring capacity:** Show learners the smallest and the largest cups/glasses. Ask them to imagine that they are very thirsty.

Guiding questions:

- Which cup would you fill with water?

Remove the small cup and replace it with the third cup.

- Which cup do you think holds more/less water?
- How can we find out?

Learners take turns to try to solve the problem, for example, by pouring water from the two cups into a third cup and comparing the results.

- Which cup holds more?
- How do you know?

Give each learner a cup and a food container. Use the sand.

- How many cups of sand do you think it will take to fill your container?

Learners count the number of times they fill their cups and pour sand into their containers until they are full. They write the number on a piece of paper.

- How many cups of sand did it take to fill your container?
- Was it more than or less than you estimated?

Check that learners are able to:

- orally solve problems with numbers 0–10
- order collections of objects from smallest to biggest up to 10
- measure quantities to find out which container has the larger capacity and volume
- use words like more than, less than, empty, full, fill

Workstation 1

TIP

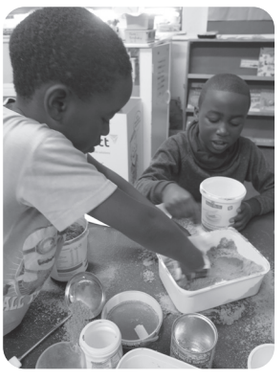
Learners benefit from doing activities at different levels. This can be done on the floor or standing at a table.

What you need

- Large bath/container of water
- Containers for measuring: spoons, cups, jugs, plastic containers, bottles of different sizes
- Plastic bags (for aprons)

Learners explore the concepts of more, less, full and empty as they fill different containers with water and compare the amounts.

Workstation 2



What you need

- Large containers – 1 per learner
- A variety of smaller containers, for example, yoghurt cups, spoons, plastic tubs
- Paper and crayons
- Sand

Learners choose a container and count the number of times they fill it with sand to fill the large container. They draw a picture of their container and write the number symbol to represent the number of non-standard measuring units used. Repeat with different containers.

Workstation 3

What you need

- 8 sets of 6 picture cards of cups with different levels of sand
- 6 paper cups per learner
- Sand

Learners order the cards from empty to full or from full to empty. They fill the paper cups with sand to match the cards.

Workstation 4

What you need

- Large see-through water bottles, elastic band/marker – 1 per learner
- Variety of smaller containers
- Bucket of water
- Funnels for pouring

Learners estimate where the level of the water will be in the larger container when the water is poured from the smaller container into the larger container. They indicate their estimation by placing an elastic band or drawing a line with a marker at the level they estimate. Then they test this out.

Content Area Focus: Numbers, Operations and Relationships

Topics	New knowledge	Practise
• Recognise number symbols and number words • Describe, compare and order numbers • Number relationships • Solving problems in context	• Ordinal numbers: sixth • Sharing without a remainder • Double	• Oral counting: forwards 0–20 and beyond, backwards 10–0 • Counting objects 1–10 • Sequencing numbers 0–10 • Ordinal numbers: first to fifth • Counting in twos • Add, subtract • Half

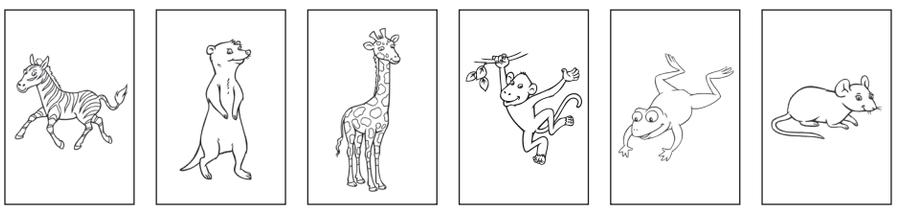
New maths vocabulary

double	share between/among	how many left over
count on	share one	
share equally	share more than one	

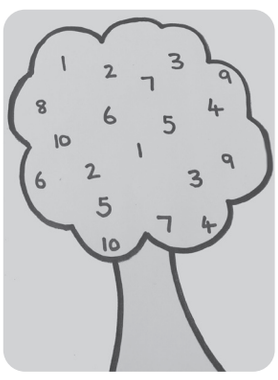
Getting ready

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

- a picture of an individual animal from each of the following number frieze pictures: zebra, meerkat, giraffe, monkey, frog, mouse



- 5 plastic lids/polystyrene trays per learner (for example, from yoghurt containers)
- number book with the title, *My number book* – 1 per learner (see *Activity Guide: Term 3*, page 107 for how to make the book)
- A3 strip of paper – 1 per learner
- an A4 sheet of paper with a tree with numbers 1–10 drawn on it – 1 per learner.



Whole class activities

Day 1

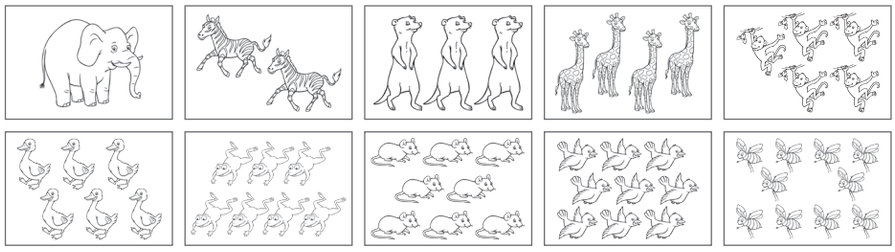
What you need

- Story: *Animals' race* (page 99)
- Number frieze symbol and picture cards 1–10
- Pictures of individual number frieze animals (zebra, meerkat, giraffe, monkey, frog, mouse)

1. **Song/rhyme:** Learners sing a song or say a rhyme of their choice.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners sit in pairs facing each other. They take turns to count each other's fingernails from 1–10.

   Guiding questions:

   - How many nails do you have on your toes/ears/mouth?
   - Which fingernail would you touch if you were counting from zero?
4. **Ordinal numbers first to sixth (story):** Learners sit in a circle. Tell the story, *Animals' race* using the number frieze picture cards (with all the animals on them) for the first part of the story and the pictures of the individual animals for the race.



   Guiding questions:

   - Which animal do you think will come first/last/fourth in the race? Why?

   Put the animal cards up as the learners describe who might come first, second, and so on. Change these according to their suggestions and reasoning. Discuss how the different animals move and their size, and whether this would make them faster or slower and affect the order in which they finish.
5. **Ordinal numbers first to sixth (races):** Learners run races outside, six at a time. Six other learners give number symbol cards 1–6 to the learners in the order in which they finished from first to sixth. Repeat with different learners.
6. **Small group activities:** Describe the activities at each workstation.

Day 2

What you need

- Song: *Old Sandile had a farm* (page 99)
- Poster 1
- Tambourine

1. **Song:** Introduce the song, *Old Sandile had a farm*.

Guiding questions:

- How many moos/oinks, and so on, did we sing each time?

Learners count on their fingers as you point to the number washing line.

2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Discuss Poster 1. Learners count objects on the poster.

Guiding questions:

- Can you see anything that there are 10/9/2, and so on of in the picture?

Count the objects they name together.

4. **Practising 0–10; more/fewer:** While you play the tambourine, learners get into their working groups and sit on the mat.

Guiding questions:

- Which group has one fewer/more, two/three fewer/more learner/s than the _____ group?
- How did you work that out?
- If we take one learner from the _____ group to join the _____ group, how many more learners will there be in the _____ group?
- What would I need to do to make the _____ group and the _____ group have an equal number of learners?
- If the _____ group went to a table and found that there were four chairs there, how many more chairs would they need?

5. **Small group activities:** Describe the activities at each workstation.

Day 3

What you need

- Song: *Old Sandile had a farm* (page 99)
- Dot and number symbol cards 0–10 (*Resource Kit*)
- 5 hula hoops

1. **Song:** Sing the song, *Old Sandile had a farm*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners sit in pairs and face each other. They put their right hands together.

Guiding questions:

- How many fingernails are there altogether if you put your right/left hands together?

4. **Halving:** Discuss the number of animals in the song, *Old Sandile had a farm*.

Guiding questions:

- Can you use your fingers to show me how many sheep/cows, and so on we sang about?

- Which animals did we sing about first/after the goats/last, and so on?

Choose two learners to be horses, four to be cows, six to be hens, eight to be geese and ten to be snakes. Each group of animals stands in a hula hoop.

- Can half of the sheep/geese come and stand next to me?
- How do we know that this is half of the sheep/geese?
- If two of the cows stand outside the hoop, how many cows are left inside the hoop?

5. **Dot cards 1–10; addition:** Show a dot card between 1 and 10. Learners call out the number of dots that are needed to get to 10. They use their fingers to support them in calculating.

   Guiding questions:

   - How did you decide that we needed _____ more dots to get to 10 dots?

   Repeat the activity with various number symbol cards between 1 and 10.

TIP Encourage learners who do not respond quickly to take their time when explaining their answers. Take care that speaking in front of the group does not make them feel anxious.

6. **Small group activities:** Describe the activities at each workstation.

Day 4

What you need

- Song: *Old Sandile had a farm* (page 99)
- Number washing line and number symbols 1–10
- 5 coloured pegs

1. **Song:** Sing the song, *Old Sandile had a farm* and dramatise it.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners sit in pairs and face each other, counting from 0 to 10 in the form of a clapping game. As they say 'zero', they slap their knees; as they say 'one', they clap their right hands together; as they say 'two', they clap their left hands together, and so on, continuing until they get to 10.

   Repeat the activity.
4. **Counting in twos:** Learners who were horses and cows on Day 3 stand in the same two groups. Count how many eyes there are in each group of learners. Choose a learner to point to each pair of learners' eyes as everyone counts together in twos, i.e. two 'horses' have 2, 4 eyes; four 'cows' have 2, 4, 6, 8 eyes.

   The five learners who were sheep during the dramatisation of the song stand up.

   Guiding questions:

   - If we count the number of eyes of the five 'sheep', how many eyes will there be altogether?

   Count together as another learner points to each pair of eyes.

5. **Practising and ordering numbers 1–10:** Point to the number washing line and show the learners the coloured pegs. Explain that together you are going to count in twos.

   Guiding questions:

   - We want to count in twos, so let's start with number 2. *(Turn number 1 card around so that '1' is not visible.)*
   - If we are counting in twos, which number should we say next? (*Answer: 4.* Turn the number 3 card so that '3' is not visible.)

   Repeat until learners have reached 10.

6. **Small group activities:** Describe the activities at each workstation.

Day 5

What you need

- Rhyme: *1 and 1* (page 100)
- Poster 6
- Number card 0
- Masking tape/chalk

1. **Rhyme:** Introduce the rhyme, *1 and 1*. Learners follow you as you show your fingers from behind your back while saying the rhyme.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners take their shoes and socks off. They stand on their left foot and count the number of toenails on the foot on the floor.

   Guiding questions:

   - How many toenails are there on your foot on the floor?
   - What do you need to do to have 10 toenails on the floor?

   Learners count their 10 toenails.

   Repeat the activity with hands/fingernails.

4. **Jumping track:** Use masking tape or chalk to create a number jumping track of 10 blocks and write the numbers 1 to 10 in the blocks. A learner jumps as the class counts.

   Guiding questions:

   - Can you jump to the numbers 2, 4, 6 as we all count in twos?
   - What was the last number you landed on as we counted in twos?
   - How many blocks to get from 2 to 4, 4 to 6, and so on?

5. **Problem solving:** Discuss Poster 6 with learners. Talk about what they can see in the picture.

   Guiding questions:

   - How many sheep do you see in the picture?
   - Which number symbol would we use to show that there are no sheep?

Show the '0' number symbol card.

- Which other animals from the song, *Old Sandile had a farm* are there none of?
- Laylah ate one sandwich. Dad ate double this number. How many sandwiches did he eat?
- Laylah gave two apples to the goat on the ground. She gave double this number of apples to the goat on top of the hay. How many apples did the goat on top of the hay get?
- How many horses are there? Laylah has eight carrots. How can she share them equally between the horses?
- Could she share 10 carrots equally between four horses? How could she do this?

6. **Small group activities:** Describe the activities at each workstation.

Integration

Home Language: Tell and dramatise stories, include numbers in stories, participate in question-and-answer activities.
Life Skills: Create dances and games involving numbers, spatial skills, problem-solving skills.

Small group activities

Teacher-guided activity

What you need

- Poster 7
- A tub per learner with:
  - 10 animal counters
  - 10 coloured counters
  - 5 plastic lids

1. **Counting objects 1–10:** Learners each count their counters 1–10.
2. **Word problem:** Learners use their counters or their fingers to solve the problem.

   Guiding questions:

   - Ten animals have to drink from two water troughs. There are an equal number of animals at each trough. How many animals are there at each trough?
3. **Ordinal numbers first to sixth:** Learners place one of their plastic lids on the mat in front of them and line their animals up one behind the other facing the 'water trough'.

   Guiding questions:

   - Where is the front/back of the line?
   - Can you show me the first/second/fifth/sixth animal that will have a turn to drink from the trough?

4. **Equal sharing:** Learners place another lid in front of them so that they have two 'water troughs'.

Guiding questions:

- Can you share your animals equally between these water troughs?
- How many animals are at each trough?

Learners place all five lids in front of them.

- How many animals will there be at each trough if you share the animals equally between the five troughs?
- If you take one animal away from one trough how many animals are left in front of you?

5. **Sharing:** Learners use counters to solve problems about Poster 7.

Guiding questions:

- Dad buys a bag of three oranges. He puts another two oranges into the bag. How many oranges does he need to pay for?
- Thami is looking at four wooden animals. One animal has fallen over. How many are standing?
- Dad buys six oranges. If he shares these equally between his family at the market, how many oranges will they each get?
- Mom buys two baskets. She asks Dad to share the six oranges equally between the two baskets. How many oranges does Dad put into each basket?

Check that learners are able to:

- count objects 1–10
- problem solve with numbers 0–10
- share counters equally
- share counters between two groups
- identify first to sixth

Workstation 1

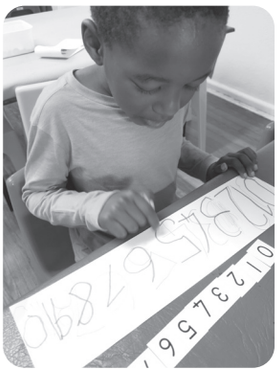
TIP
Numbers 6–10 will be done in Week 8.

What you need

- Number book – 1 per learner
- Crayons

Learners write the number symbol 1 and draw one object on the first page, 2 on the second page, and so on, up to 5.

Workstation 2

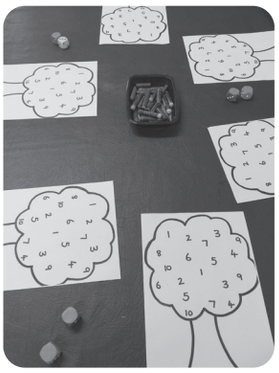


What you need

- Number symbols 0–10, 1 set per learner (*Resource Kit*)
- A3 strip of paper/cardboard – 1 per learner
- Crayons/pencils

Learners arrange the number symbol cards in order from 0–10 above the strip of paper. Remind them to spread out the number symbols across the top of the paper strip so that there is enough space for them to write the numbers. They write the numbers on the strip of paper below each symbol.

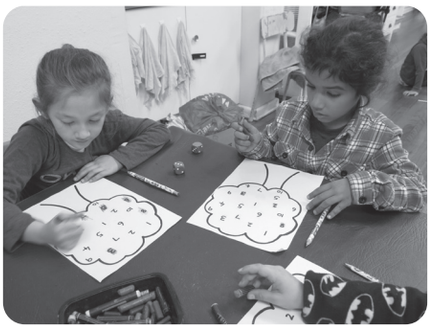
Workstation 3



What you need

- An A4 sheet of paper with a tree with numbers 1–10 drawn on it – 1 per learner
- 2 dice per pair of learners (on one dice cover the '5' and '6' with a sticker/paper)

In pairs, learners take turns to throw the two dice. They count the number of dots on the dice. They find the corresponding number on the tree, circle it and then colour it in. Once all the numbers on the tree have been coloured in, learners create a pattern of their choice by writing number symbols around the edge of the page.



Workstation 4

What you need

- Block structures in the block area – 1 per learner
- Blocks

Build block structures in the block area or on the mat. Learners copy one structure each and swap until they have copied each structure. They take turns to create structures for each other to copy.

Content Area Focus: Numbers, Operations and Relationships

Topics	New knowledge	Practise
• Recognise number symbols and number words • Describe, compare and order numbers • Number relationships • Solving problems in context	• Sharing with a remainder	• Oral counting: forwards 0–20 and beyond, backwards 10–0 • Counting objects 1–10 • Sequencing numbers 0–10 • Reinforce number concept 0–10 • Problem solving 1–10 • Sharing without a remainder • Half, double

New maths vocabulary

how many more is _____ than _____
groups of two, three, _____
higher
lower

Getting ready

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

- number track 0–10 – 1 per learner
- cut-outs of apples – 3 per learner

- a 'fence' made from a piece of cardboard with the middle cut out (see page 74).

Whole class activities

Day 1

What you need

- Rhyme: *1 and 1* (page 100)
- 15 containers with:
  - Unifix blocks
  - 2 number symbol/picture or dot cards 0–10 (*Resource Kit*)

1. **Rhyme:** Say the rhyme, *1 and 1*.
2. **Oral counting:** 0–20 and beyond, 10–0.

TIP

Involve all the learners in the counting activity once you have identified what you are counting together.

3. **Counting objects 1–10:** Learners choose which objects they would like to count.

   Guiding questions:

   - Can you see any group of objects in the classroom that looks like it is a group of 10?

   Count the objects together.

   - Were there too few/too many/more than 10, and so on?

4. **Comparing numbers:** Play the game, 'Build and compare'. Learners sit facing a partner. Give each pair of learners a container of Unifix blocks and two number cards. They each take out a card without looking at the number. As they turn over their number cards, together they say, 'One, two, three compare.'

   Each learner says his/her number to his/her partner, 'I have a _____.' They each use Unifix blocks to build a tower to represent their number. They compare their towers and their numbers using the following vocabulary: *more, less, fewer, same* (for example, 'six is more than four').

   Learners swap containers with another pair of learners and repeat the activity.

   Guiding questions:

   - Who has a number that is more (bigger, higher)/less (smaller, lower) than their partner's number?
   - How many blocks are there in your tower?
   - Who has fewer/more blocks in their tower than their partner?
   - Who has zero blocks in their tower?
   - Who has a number that is the same as someone else's in the class? How do you know?

5. **Small group activities:** Describe the activities at each workstation.

Day 2

What you need

- Rhyme: *1 and 1* (page 100)
- Number dot, symbol and picture cards 0–10 (*Resource Kit*)
- 2 flat containers

1. **Rhyme:** Say the rhyme, *1 and 1*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Repeat the activity from Day 1.

TIP
Use number word cards for those learners who are able to read/ recognise the words.

4. **Problem solving 1–10:** Learners sit in a circle. Give each learner a number dot, picture or symbol card.

   Guiding questions:

   - Can you show me one/two/three more/fewer fingers than the number on your card?
   - How many more/fewer is _____'s number than _____'s?
   - Who has 10 bees on their card? Who has a number that is five fewer than this?
   - Whose number card has five monkeys? How many arms do the five monkeys have altogether?
   - Who has numbers that are smaller than 6/bigger than 3?

5. **Sharing with or without a remainder:** Place two containers in the middle of the mat. Learners stand up two at a time to place their number cards in the two containers.

   Guiding questions:

   - Will there be an equal number of cards in each container?
   - How will we find out?
   - We can't cut the cards in half, so what should we do if there is one extra card?

6. **Small group activities:** Describe the activities at each workstation.

Day 3

What you need

- Number cards 0–10 (*Resource Kit*)
- Number washing line
- A peg

1. **Song/rhyme:** Learners sing a song or say a rhyme of their choice.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners sit in a circle. Count from 1–10 as you go around the circle.

   Guiding questions:

   - Which learner will be the next number 10?
   - Who will be the number 7 after that?
   - We are on number 4. If we count two more, what number will it be?
   - How did you work that out?
   - Those learners who were number 10s, please stand in the middle of the circle and those who were number 4s stand outside the circle.
   - Are there more/fewer number 10s or number 4s?

4. **Practising 0–10:** Play the game, 'Pegging a number'. Peg a number between 0 and 10 to the back of a learner. Other learners give clues as the learner tries to guess what number is on his/her back, for example: 'Your number is two more than three', and so on. As the learner responds, guide him/her to the number. Encourage learners to refer to the number washing line. Repeat the activity a few times with different learners.
5. **Small group activities:** Describe the activities at each workstation.

Day 4

What you need

- Number dot, symbol and picture cards 1–10 (*Resource Kit*)

1. **Song/rhyme:** Learners sing a song or say a rhyme of their choice.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Repeat the activity from Day 3.
4. **Practising numbers 1–10:** Play the game, 'Numbers bigger/smaller than'. Learners stand in a circle. Give each learner a number card and call out instructions, for example: 'Sit down if you have a number bigger than 4/smaller than 2.' Learners check whether their classmates are correct. Continue until all learners are sitting down.

Guiding questions:

- Do you have a number that is two more than 3/three fewer than 6/half of 8/double 2, and so on?

5. **Small group activities:** Describe the activities at each workstation.

Day 5

What you need

- Poster 3

1. **Song/rhyme:** Learners sing a song or say a rhyme of their choice.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Discuss Poster 3. Count the number of windy, sunny, cloudy and rainy days on the weather chart in the picture.

Guiding questions:

- There are three sunny days. How many more sunny days do we need to have ten sunny days?

4. **Practising 0–10:** Ask questions about Poster 3. Learners can use their fingers or counters to solve problems if necessary.

   Guiding questions:

   - How many learners do you see in the classroom?
   - If four learners go outside, how many learners will be left in the classroom?
   - How many girls are there in the classroom? If three more girls come in, how many girls will there be?
   - Six girls are in the classroom. Three more girls come in. How many girls are there now?
   - The teacher has six blocks to share equally between the three girls. How many blocks will each girl get?

5. **Small group activities:** Describe the activities at each workstation.

Integration

Home Language: Critical thinking and expressing opinions.
Life Skills: Solve problems during the daily programme and explain reasoning.

Small group activities

Teacher-guided activity

What you need

A tub per learner with:
- 10 animal counters
- Cut-outs of 3 apples
- A 'fence' made of a piece of cardboard with the middle cut out
- Scissors
- Structure beads

1. **Word problems using counters:** Learners count their animal counters. Ask word problems about the animals.

   Guiding questions:

   - Sandile has 10 animals. He brings three animals into the shelter for the night. How many more does he need to bring in so that all the animals are inside?

2. **Sharing with a remainder:** Learners sit in pairs opposite each other. They line up their 10 animals to face themselves.

   Guiding questions:

   - Do you and your partner have an equal number of animals? How do you know?
   - Sandile wants your animals to come into his shelter two by two. Show how he could group them.
   - And three by three?

- What do you notice? What can we do about the animal that is left out?

Take time to listen to the learners' suggestions about how they might manage the problem of the remaining animal.

Learners place eight animals in their tubs and take out the cut-outs of three apples.

- How can you share these three apples equally between your two animals?

Learners try to solve the problem. When they realise that there is one apple remaining, discuss how to cut the apple in half to share it equally.

TIP

Draw learners' attention to the fact that some things, such as the apple, can be cut to share, but other things, such as the animals, can't be cut to share.

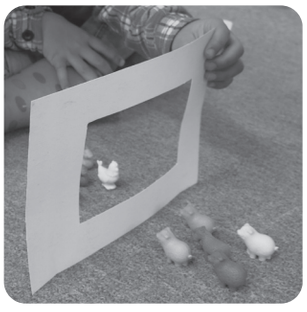
3. **Combinations of 10 using animal counters:** Learners arrange their animals in a vertical line. Using their 'fences', they explore how many different ways they can separate the animals into two groups.

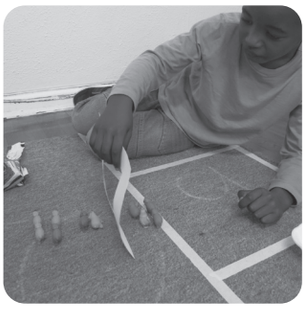
   Guiding questions:

   - Can you place the 'fence' so that there are four animals on one side of the fence?

   Learners 'fence off' four animals and count these.

   Learners peep through their fences.





   - How many animals are on the other side of the fence?
   - How many animals are there altogether?

   Learners count the animals on the other side of the fence and then repeat the activity with other combinations that make up 10.

   - Can you place the fence so that there are exactly the same number of animals on each side?

4. **Combinations of 10 using structure beads:** Ask learners to show five beads. Encourage them to do this without counting in ones. Learners hold five beads and start their count from 5.

   Count on from 5 to 8.

Guiding questions:

- How many more beads did you count?

Hold four/six/three beads. Count on from 4 to 7/10/8, and so on.

- How many beads do you have now?

Check that learners are able to:

- solve problems with numbers 0–10
- count on from a given number – up to 10
- share counters equally with a remainder
- identify groups that combine to make 10

Workstation 1

What you need

- A4 paper – 1 piece per learner
- Paint in shallow containers
- Sponges/cotton wool/ear buds
- Crayons

Learners fold their pages in half. They write a number between 1 and 5 at the top of one side of the page. They dip sponges/cotton wool/ear buds/their finger into the paint and make the same number of dots as the number they wrote. They fold the page and press it down to make the same number on the opposite side of the page. They count how many dots they have now and then write that number.

Workstation 2

What you need

- Playdough and mats
- Number track 0–10 – 1 per learner

Learners mould 'bricks/blocks' from playdough and build towers to match the numbers on the number track 0–10.

Workstation 3

What you need

- Number symbols 0–10 (*Resource Kit*) – 8 per pair of learners
- Unifix blocks

Learners work in pairs to play, 'Build and compare'. Each learner has four number symbols in a pile. As they each turn over a number symbol, together they say, 'One, two, three compare.' Each learner says his/her number to his/her partner, 'I have a _____.' They each use Unifix blocks to build a tower to represent their number. They compare their towers and their numbers using the following vocabulary: *more, less, fewer, same* (for example, 'six is more than four').

They repeat this another three times with different number symbols. They swap their sets of number symbols with other learners and play the game again.

Workstation 4

What you need

- Number books from Week 7
- Kokis/crayons
- A4 paper
- Stapler

Learners complete the pages for 6–10 in their number books. They make envelopes for their books (by folding and stapling A4 pages). They write their names and the number of their home on the front of the envelope.

TIP

Learners can create their own 'number' picture when they have finished.

Content Area Focus: Space and Shape (Geometry)

Topics	New knowledge	Practise
• Properties of shapes	• Sort shapes according to size, colour and shape • Shape conservation	• Oral counting: forwards 0–20 and beyond, backwards 10–0 • Counting objects 1–10 • Shapes: circle, square, triangle, rectangle • Figure-ground perception

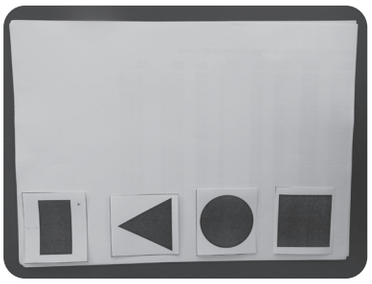
New maths vocabulary

sharp round

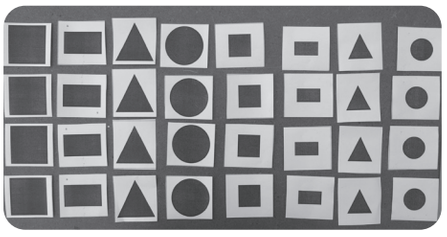
Getting ready

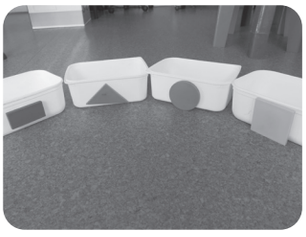
For the activities this week, you will need to prepare the following:

- cardboard poster with shape cut-outs (rectangle, triangle, circle and square, all in the same colour)



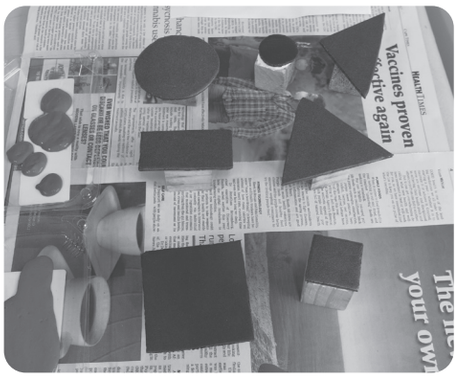
- 6 pictures of everyday objects that have circle, triangle, square and rectangle shapes in them (see page 79)
- 32 shape cards as follows:
  - 8 yellow shapes: 1 big and 1 small circle, square, rectangle and triangle
  - 8 blue shapes: 1 big and 1 small circle, square, rectangle and triangle
  - 8 red shapes: 1 big and 1 small circle, square, rectangle and triangle
  - 8 green shapes: 1 big and 1 small circle, square, rectangle and triangle



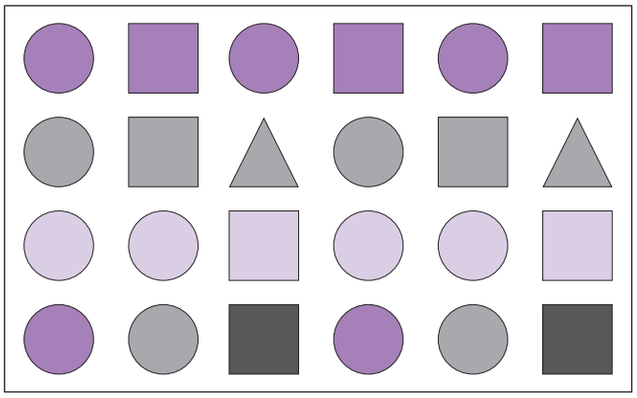


- 4 boxes each labelled with a different shape (square, circle, triangle, rectangle)

- 4 shape Bingo boards (*Activity Guide: Term 3*, page 108)
- different size and colour paper shapes (circle, square, triangle, rectangle)
- shape templates (cut out of sponge or Styrofoam) for printing



- pattern cards with different shape patterns on them – 1 per learner



- twenty-four-piece puzzles (page 112).

Whole class activities

Day 1

What you need

- Song: *If you're holding a square* (page 100)
- Circle-, square-, triangle- and rectangle-shaped objects in a bag
- Cardboard poster with shape cut-outs
- Chalk
- 4 shape cards (circle, rectangle, square, triangle)
- Recorded music (or a musical instrument)

1. **Song:** Sing the song, *If you're holding a square*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** In pairs, the first learner chooses a number less than 10, for example, 6, and jumps that number of times while counting. The other learner says how many jumps he/she thinks are needed to make up 10 and then checks by jumping and counting. They swap roles.

4. **From 3-D to 2-D:** Learners sit in a circle. Place the shape poster in the middle of the circle. Pass around the bag of objects. Learners take turns to identify a shape on the poster and feel for the object in the bag that matches it. The object is placed on top of the shape.

   Guiding questions:

   - Can you feel an object that has a circle/square/rectangle/triangle shape?
   - Can you match the object to a shape on the board?
   - What does the object feel like?
   - What is the same about this object and the shapes on the poster?
   - What is this shape called?

5. **Properties of shapes:** Use chalk to draw one large circle, square, triangle and rectangle on the floor. As the music plays, learners move around the classroom. When the music stops, hold up a shape card. Learners stand around the shape drawn on the floor.

   Guiding questions:

   - What is this shape called?
   - How many sides/corners/straight sides/curved sides does it have?

6. **Small group activities:** Describe the activities at each workstation.

Day 2

What you need

- Song: *A circle's like a ball* (page 100)
- Pictures of everyday objects containing shapes
- 32 shape cards
- Prestik

1. **Song:** Sing the song, *A circle's like a ball*, with actions.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners stand in groups and count in response to the question below.

   Guiding questions:

   - How many learners are wearing jerseys/shoes with laces/walked to school, and so on?

4. **Practising shapes:** Arrange shape cards into separate piles according to shape. Display one of the pictures of everyday objects. Invite learners to place a shape card on the corresponding shape in the picture. Discuss the shapes with learners.

   Guiding questions:

   - Can you match one of these shapes to what is in this picture? What shape is it?
   - How do you know it's a square/rectangle/circle/triangle?
   - Why is it not a square/rectangle, and so on?

Discuss other shapes in the classroom.

- Can you see any of these shapes in the classroom?

Learners go on a shape walk outside.

- Look at the tyres/bricks/windows. What shape do you see?
- Can you see a roof that is a triangle shape?
- Can you see something that looks like a circle?

5. **Small group activities:** Describe the activities at each workstation.

Day 3

What you need

- Song: *Shape Hokey Pokey* (page 100)
- Chalk
- 32 shape cards

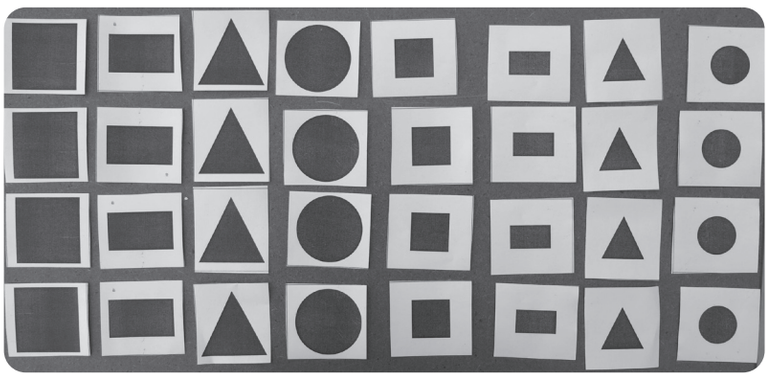
1. **Song:** Sing the song, *Shape Hokey Pokey*, with actions.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Use chalk to draw a large circle, square, triangle and rectangle on the floor. Invite a few learners to stand inside the circle.

   Guiding questions:

   - How many feet are in the circle?
   - How many hands are in the circle?
   - How many _____ are in the circle?

   Repeat with other shapes.
4. **Colour, size and shape:** Give each learner a shape card. Call out the name of a shape. Learners with that shape go to the matching shape drawn on the floor. They sing and dance the *Shape Hokey Pokey* song for their shape. Call out another shape name and repeat the activity.

   Collect the shape cards and arrange them on the floor in columns according to shape, size and colour so that you have four cards in each of the eight columns. Learners take turns to find the shapes according to the attributes you name (colour, size and shape).



   Guiding instructions:

   - Find the big blue circle, and so on.
   - Touch all the red shapes/small triangles.

5. **Small group activities:** Describe the activities at each workstation.

Day 4

What you need

- Song: *A circle's like a ball* (page 100)
- Number symbols 1–10
- 32 shape cards
- Attribute blocks (*Resource Kit*)
- Dot cards 1–10 (*Resource Kit*)

1. **Song:** Sing the song, *A circle's like a ball*, with actions.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Put up number symbols 1–10 around the room. Hold up a dot card and learners walk/jump/hop to the correct number symbol.
4. **Practising shape attributes:** Learners sit back to back in pairs. Give each learner an attribute block, which they should not let their partner see. One of the pair asks questions about the partner's shape until she or he can guess what it is.

   Guiding questions:

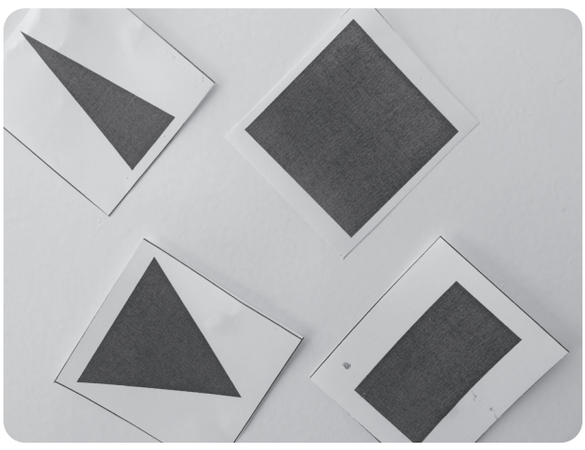
   - Does it have straight sides?
   - How many sides/corners does it have?

   Put an attribute block behind your back. Describe the shape and let learners guess what it is.

   - It has 4 equal sides and 4 corners. What is it?
   - It has 2 long sides and 2 short sides. What is it?

   Select a few of the shape cards and place them on the wall in different orientations, for example, upside down, sideways. Ask learners to identify the shapes.

TIP Showing pictures in different positions helps learners identify shapes even when they are oriented differently.



Guiding questions:

- What shape do you see? How do you know?
- Can you find a triangle? How did you know it was a triangle?

5. **Small group activities:** Describe the activities at each workstation.

Day 5

What you need

- 4 boxes labelled with different shapes
- 32 shape cards
- Poster 9

1. **Song:** Learners choose a shape song to sing.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners stand alongside each other in pairs. Together, they count and hop forward two paces, then they change direction and count and hop forward another two paces. They continue until they reach 10.
4. **Practising shapes:** Spread out the shape cards on the mat and display the boxes labelled with different shapes. Learners take turns to choose a shape card and put it into the correct box.

   Guiding questions:

   - Which box does your shape belong in?
   - How is your shape the same as the one on the outside of the box?
5. **Recognising shapes:** Discuss Poster 9. Talk about what learners see in the picture.

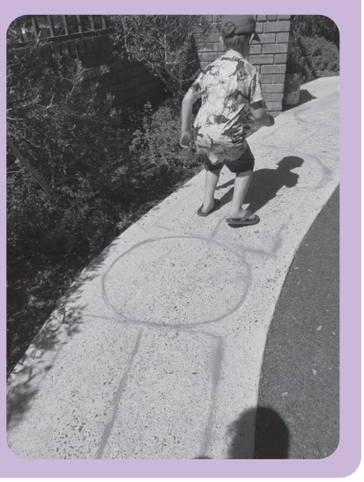
   Guiding questions:

   - What shapes can you see on the orange building? How many squares/rectangles can you count? How do you know it's a square/rectangle?
   - Can you find any shapes on the wall behind Malusi? What shape is it? Where else can you see this shape in the picture?
   - How many circle shapes can you see? Where are they? Which is the biggest/smallest circle? How many circles can you find?
   - What shapes do you see on the wall of the shop building? How many sides/corners does the triangle/rectangle have?
   - Where can you see small triangles at Malusi and Granny's house?
6. **Small group activities:** Describe the activities at each workstation.

Integration

Home Language: Vocabulary development, 'show and tell', recognition of shape words.

Life Skills: Recognise and describe shapes inside and outside the classroom; shape hopscotch. (Draw a shape hopscotch grid outdoors. Learners take turns to throw beanbags into a shape, hop over the shape where the beanbag lands and then hop inside the other shapes.)



Small group activities

Teacher-guided activity

What you need

- Poster 7
- Tub per learner with:
  - 20 counting sticks
  - A small ball of playdough
- 32 shape cards
- A playdough mat – 1 per learner
- 4 shape Bingo boards (made in Term 3)
- 10 attribute blocks (*Resource Kit*) of the same shape (big and small) per pair of learners

1. **Word problems:** Ask learners to look at Poster 7. They can use their counters or their fingers to solve the problems.

   Guiding questions:

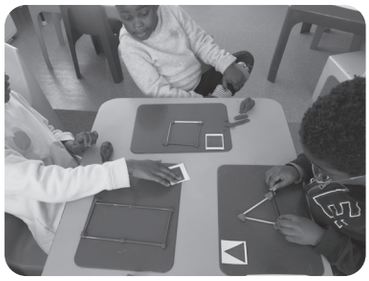
   - There are two wooden elephants and two wooden giraffes for sale at the market. How many wooden animals are there for sale?
   - The man is cooking five sausages. If seven people want a sausage, how many more sausages must he cook?
   - How many apples does the fruit seller have on her table? The fruit seller wants to put the apples into bags with three apples in each bag. How many bags can she fill?

2. **Counting objects 1–10:** Learners each count out 10 counting sticks from their tubs.

   Guiding questions:

   - How many of your sticks are red/yellow/green, and so on?

3. **Building a shape:** Give learners different shape cards: triangle, square and rectangle. Learners use their sticks to copy the shape on their card. Show learners how to use playdough to hold the ends of the sticks in place.

   Guiding questions:

   - What shape do you have?
   - How many sticks do you need to make this shape?
   - Can you turn your shape into a triangle/rectangle/square?

4. **Shape Bingo:** Learners work in pairs. Give each pair of learners a Bingo board and some shape cards. Say the name and size of a Bingo board shape, for example, a big circle, a small triangle. If learners have the shape of this size amongst the cards they were given, they place it on the corresponding block of the Bingo board.

Check that learners are able to:

- count objects 1–10
- orally solve problems with numbers 0–10
- identify several attributes of a shape – colour, shape, size
- match shapes
- copy shapes

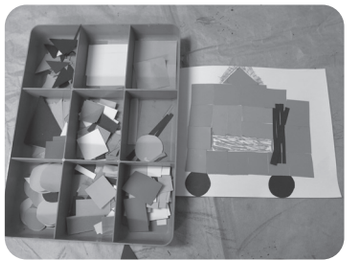
TIP
Link this activity to the theme for the week.

Workstation 1

What you need

- Different coloured paper shapes (circle, square, triangle, rectangle) in different sizes
- Crayons
- Paper
- Glue
- A4 page per learner

Learners glue the shapes onto the paper to make pictures/designs.



Workstation 2

What you need

- Shape templates cut out of sponge or Styrofoam
- Paint in shallow dishes
- Paper – 1 piece per learner
- Plastic mat
- Aprons

Learners press the shape templates into the paint and press them onto the paper to make shape designs.

Workstation 3

What you need

- Shape pattern cards – 1 per learner
- Attribute blocks (*Resource Kit*)

Learners choose a shape pattern card and use attribute blocks to copy the patterns.

Workstation 4

What you need

- Twenty-four-piece puzzles (page 112)
- Assortment of other puzzles

Learners complete puzzles according to their ability.

Content Area Focus: Data Handling

Topics	New knowledge	Practise
• Collect and sort objects • Represent sorted collections of objects • Discuss and report on sorted collections of objects	• Pictograph using an increased set of data	• Oral counting: forwards 0–20 and beyond, backwards 10–0 • Counting objects 1–10 • Sequencing numbers 1–10 • Problem solving 1–10 • More, fewer, equal • Estimating • Collect, sort and represent collection of objects • Analyse and report on data

New maths vocabulary

maybe	possible	sure

Getting ready

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

- name cards for months of the year from January to December (8 cm wide)
- learners' name and date of birth cards (8 cm wide)
- 2 trays: one labelled with 'hard' and a picture of a pencil; one labelled with 'soft' and a picture of a tissue
- a poster-sized page divided into 4 blocks. Label each block by drawing a simple outline picture of a car, person, plant or animal in one corner (see page 92) – 1 poster per group
- 11 containers (for example, yoghurt cups) each labelled with a number from 0 to 10

- 4 colours of playdough
- collections of four different types of small objects, for example, shells, twigs, leaves, small stones
- a strip with pictures of 6 fruits – 1 per learner
- A4 fruit grid with pictures of 6 fruits and 5 rows – 1 per learner (page 111).

Whole class activities

Day 1

What you need

- Song: *Months of the year* (page 100)
- Birthday chart
- Seasons chart
- Weather charts

1. **Song:** Sing the song, *Months of the year*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Learners stand in a circle. They jump into the circle if they brushed their teeth with the brand of toothpaste named.

   Guiding questions:

   - Jump into the circle if you brushed your teeth with Colgate/Aquafresh/Mentadent P this morning.
   - Do you think there are more/fewer than 10 learners inside the circle?

   Count the learners inside the circle.

   - Was your estimation close?

TIP
Ask learners to bring toothpaste boxes to place on the maths table to sort.

4. **Collecting and sorting data:** Together look at the birthday chart.

   Guiding questions:

   - How many months are there in the year?
   - How many months are cold/hot/rainy? How do you know?
   - How do we know which month we are in now?
   - How many birthdays are there on our chart? How do you know?

   Point to the various months and ask learners to name them.

   - How do you know the name of this month?
   - Which month comes after/before _____?

   Sing the song, *Months of the year* again and ask learners to raise both hands when they hear the month in which they were born.

   Ask a learner to point to each month. Learners stand if their birthday is in the month which is pointed to.

   - Which month do you think has the most birthdays? How do you know?

TIP
Ask learners to suggest questions they would like to ask.

5. **Small group activities:** Describe the activities at each workstation.

Day 2

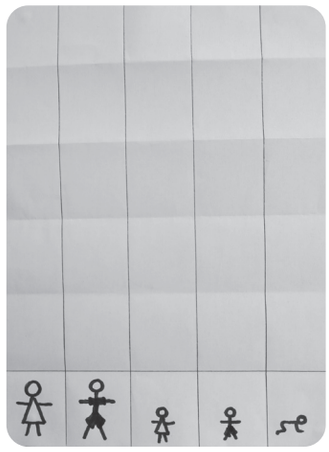
What you need

- Song: *I can sort* (page 100)
- 12 months of the year name cards

1. **Song:** Sing the song, *I can sort*.
2. **Oral counting:** 0–20 and beyond, 10–0.

TIP
Design and illustrate a page for learners to take home to collect data about their families.

3. **Counting objects 1–10:** Repeat the activity from Day 1, but with a focus on the learners' families.



Guiding questions:

- Jump into the circle if you have older/younger brothers/sisters, grannies/aunts living with you.
- Do you think there will be more learners in the group who have cousins living with them than the group of learners who don't?
- Was your estimation close?

4. **Ordering months:** Learners sit in a circle. Spread the 12 month cards out in the middle. Choose a learner who has a birthday in the first month of the year. He/she points to the month on the birthday chart. Ask different learners to fetch the months that are pointed to. Suggest putting the months in order.

Guiding questions:

- Which month comes first?

The learner holding that card stands first.

- Which month should be placed next/last?
- Which month comes before/after the month that your birthday is in?

Repeat with other learners.

5. **Small group activities:** Describe the activities at each workstation.

Day 3

What you need

- Song: *I can sort* (page 100)
- A drum
- 12 months of the year cards
- Prestik

TIP
Discuss a way to record and represent which animals the learners have at home.

1. **Song:** Sing the song, *I can sort*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Repeat the activity from Day 1.

Guiding instructions:

- Jump into the circle if you have a dog/cat/chicken/fish at home.
- Count the learners who jump into the circle and ask related questions.

4. **Collecting, sorting and representing data:** Place the 12 months of the year cards in order with space in between for the learners to arrange themselves in line next to these. Play the drum for learners to move freely. When the music stops, the learners line up next to the month in which they were born. They sit in a line facing their card.

Guiding questions:

- How many learners were born in the same month as you?
- Which month/s were the most/least learners born in?
- How do you know?
- Which month has the most birthdays? How do you know?

5. **Small group activities:** Describe the activities at each workstation.

Day 4

What you need

- Song: *I can sort* (page 100)
- Learners' name cards with their date of birth
- 12 months of the year cards placed on the wall with spaces in between

1. **Song:** Sing the song, *I can sort.*
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Repeat the activity from Day 1.

   Guiding instructions:

   - Jump into the circle if you woke up this morning before the sun came up.
   - Jump into the circle if you went to sleep last night before the adults in your home did.

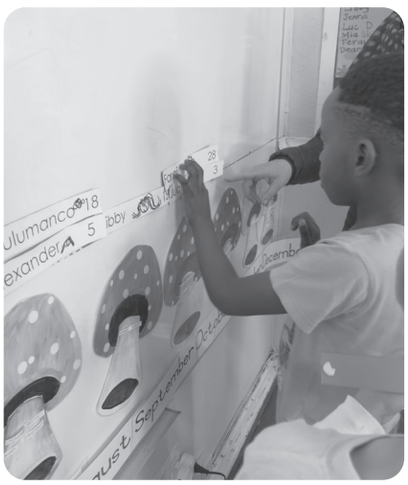
   Count the learners who jump into the circle and ask related questions.
4. **Collecting, sorting and organising data:** Learners sit in a circle. Place their name cards in the middle. A few learners at a time fetch their name cards. Once all learners have their name card they sit in groups with others who have a birthday in the same month.

   Guiding questions:

   - Can you sit in order of who has a birthday first, second, and so on, in the month?

   Learners take turns to put up their name cards in order according to their date of birth. Learners' name cards must be placed one above the other without spaces in between.

TIP
Learners can draw their face next to their name.



5. **Reading, interpreting and reporting on data:** Talk about the pictograph.

TIP The birthday chart should be on the classroom wall so that learners can engage with it.

Guiding questions:

- What can you tell me about this graph?
- What difference will it make if I add my name to the chart in the month of _____?
- What is the same/different about this graph and the birthday chart?
- Is there a month with no birthdays? Which one is it?
- Which month has the fewest/same number/most birthdays? How do you know?

6. **Small group activities:** Describe the activities at each workstation.

Day 5

What you need

- Song: *I can sort* (page 100)
- Poster 3
- Pictograph
- Toothpaste boxes (brought by learners)

1. **Song:** Sing the song, *I can sort*.
2. **Oral counting:** 0–20 and beyond, 10–0.
3. **Counting objects 1–10:** Repeat the activity from Day 1.

Guiding questions:

- Jump into the circle if you sleep alone/share a bed/share a room.

Count the learners who jump into the circle and discuss.

Look at and identify the toothpaste boxes on the maths table.

- How many Colgate/Aquafresh, and so on, boxes do you think there are?

Count each group together.

- How close were you in your estimation?
- Which group has more/fewer boxes?

4. **Reading, interpreting and reporting on data:** Discuss the birthday calendar on Poster 3.

TIP Look at the season chart and your 12 calendar month weather charts (if you have kept these). Group them into seasons.

Guiding questions:

- Do you see any months where they have the same number of names as our graph?
- How many months have one/two birthdays?

- How many months on our graph have one/two birthdays?
- Which month has the most birthdays? How do you know?

5. **Problem solving:** Look at the pictograph together and ask questions.
   Guiding questions:
   - There are _____ learners born in March. If three new learners came to our class who were born in March how many names would there be in March?
   - _____ learners are born in May. Two of these learners are not at school today. How many learners born in May are at school?
   - Three months each have two birthdays. How many birthdays do these months have altogether?
6. **Small group activities:** Describe the activities at each workstation.

Integration

Home Language: Listening and Speaking: sharing ideas, solving problems and explaining solutions; Emergent Reading and Writing: understanding that a symbol represents something.
Life Skills: Classifying objects, collecting information to solve problems.

Small group activities

Teacher-guided activity

What you need

- A tub per learner with:
  - 10 fruit counters (a different combination for each learner with no more than 5 of any type of fruit)
  - A red, blue, green, purple, yellow, and orange crayon
- A strip with pictures of 6 fruits – 1 per learner
- A container of Unifix blocks
- An A4 fruit grid with pictures of 6 fruits and 5 rows – 1 per learner (page 111)

1. **Problem solving:** Discuss word problems with the learners.
   Guiding questions:
   - Every day Thami eats one banana. Malusi and Laylah eat two bananas each. How many bananas does Dad need to buy every day for the children in the family?
2. **Counting objects 1–10:** Learners look at their fruit counters.
   Guiding questions:
   - How many fruits do you think you have?
   - Do you think you each have the same number of fruits?

   Each learner estimates and then counts their fruit.
3. **Sorting objects:** Learners group their counters into different types of fruit.

Guiding questions:

- How many different types of fruit do you have?
- Do you all have the same number of each fruit? How do you know?

Learners place their fruits above the matching fruit picture on their strips.

- Which fruit do you have the most/fewest of?
- Who has the same number of bananas?
- Which fruit is the biggest and takes up the most space?
- The grapes are bigger than the bananas. What do we need to do when we place these in a line to make sure that we can see which group has the most/fewest?
- What else could we use to show how many of each fruit we have?

Learners make towers from Unifix blocks above the pictures of the fruit to represent their groups of fruit.

Compare and discuss learners' Unifix towers.

4. **Game – representing groups and analysing:** Learners take a handful of fruit from their pile. They sort these and colour in blocks on their grids according to the number of each fruit. The game is over when a learner completes a column.

Guiding questions:

- How many blocks did you colour yellow for bananas?
- Does anyone have more/fewer blocks coloured for their bananas?
- If you had taken one more banana, how many blocks would you have coloured yellow?

Check that learners are able to:

- represent data by arranging objects to match illustrations
- represent data by colouring in blocks
- know 'how many' based on data represented
- compare data and answer related questions

Workstation 1

What you need

- A collection of hard and soft objects
- 2 trays: one labelled 'hard'; one labelled 'soft'
- Paper and crayons
- Scissors

Learners sort objects into those that are hard and those that are soft. They discuss other ways they could sort them. They draw pictures of hard and soft objects then cut them out and place them on the trays.

Workstation 2

TIP
Add small cards and kokis for learners to write number symbols to add to the containers.

What you need

- 11 containers, for example, yoghurt cups labelled with numbers
- 8 sets of number symbols 0–10 (*Resource Kit*)

Place the number symbols in a pile on a tray. Learners sort these into the matching containers. They then count to check that each container has eight number symbols.

Workstation 3

What you need

- A poster-sized page divided into 4 labelled blocks
- Scissors – 1 pair per learner
- Magazines
- Glue

Learners cut out pictures of different cars, people, plants and animals and paste them in the appropriate block on the poster.

TIP
Learners can create an additional cookie and decorate it according to their own description of their collection of objects. This can be discussed during snack time.

Workstation 4

What you need

- 4 colours of playdough
- Collections of four different types of small objects, for example, shells, twigs, leaves, small stones
- 4 plastic or polystyrene trays

Place all the small objects in a single pile and ask learners to sort them into the four trays. They use playdough to make cupcakes and then choose items from the trays to decorate their cupcakes. Each cupcake should be decorated with items from one of the trays.

Assessment

Term 4: Exemplar Record of Continuous Assessments

Key ✓ = competent ● = partially competent ✗ = not yet competent	NUMBERS, OPERATIONS AND RELATIONSHIPS																		COMMENTS
Learners' names	Counts objects: 1–10	Oral counting forwards: 0–20 and beyond	Counts backwards: 10–0	Counts in twos	Identifies number symbol and number word: 9	Identifies number symbol and number word: 10	Identifies number symbol and number word: 0	Knows number pictures and dot cards 0–10	Recognises numbers in familiar contexts	Identifies and describes whole numbers 0–10	Compares numbers: more than – less than – equal to; most – least; many – fewer	Orders (sequences) numbers from smallest to biggest and biggest to smallest 1–10	Understands ordinal numbers: first, second, third, fourth, fifth, sixth	Explains own thinking in words and through drawings or concrete objects	Solves problems using concrete objects or number ladder: 0–10	Orally adds and subtracts using concrete objects: 0–10	Distinguishes between more than, fewer than and equal to	Recognises the South African coins and banknotes: 10c, 20c, 50c, R1, R2, R5, R10, R20, R50, R100, R200	Identifies the South African coins and banknotes: 10c, 20c, 50c, R1, R2, R5, R10, R20, R50, R100, R200	Final coding
Date																			

Key	PATTERNS, FUNCTIONS AND ALGEBRA					SPACE AND SHAPE (GEOMETRY)						MEASUREMENT			DATA HANDLING						COMMENTS	
✓ = competent ● = partially competent ✗ = not yet competent **Learners' names**	Identifies simple repeating patterns	Copies and extends simple repeating patterns	Copies, extends and creates own auditory patterns	Creates own pattern	Understands the game, 'hopscotch'	Able to build at least a twenty-four-piece puzzle	Recognises the line of symmetry in objects	Follows directions: forward and backward; up and down; upwards and downwards; left and right	Recognises and identifies the circle, triangle, square and rectangle	Describes, sorts and compares 3-D objects according to similarities and differences	Describes, sorts and compares 2-D shapes according to similarities and differences	Measures and compares objects according to length, mass and capacity and volume	Distinguishes between big, bigger, biggest and small, smaller, smallest	(Length) Understands that objects are also measured by using a tape measure	Collects objects according to sizes	Sorts collections of objects	Represents collections of objects	Collects, sorts and represents data according to one attribute	Analyses data using questions	Discusses and reports on sorted collection of objects		Final coding
Date																						

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Resources

Songs, rhymes and stories

Week 1

Story: *Number 9 story* (with Number 9 frieze template)

Next came nine Birds. They flew in the air for many days looking for just the right kind of home that is safe and warm. They flapped their wings all day long, looking high and looking low for a place they can call home.

At last they find a house that looks nice and cosy. The nine Birds perch on the windowsill and peer inside. There is nobody living in the house!

The Birds use their beaks to gather materials to make the number symbol 9 and the number word nine, which they stick on the front of the door. Each Bird makes one doorbell for the front door.

There is only one bedroom in the house, but luckily birds don't need beds. They like to sleep while sitting up!

Three Birds find a windowsill, three Birds perch on a chair and three Birds sit on the bath. They all fluff out their feathers to make nice warm blankets. They are so tired that there is not even a twitter or a tweet – the nine Birds sleep all through the night and are not up early enough the next day to catch worms for breakfast.

Luckily the nine doorbells ring just as the Birds are feeling hungry. Their friendly neighbours are standing at the front door with nice big, fat, juicy worms to welcome the Birds: one Elephant from house number 1, two Zebras from house number 2, three Meerkats from house number 3, four Giraffes from house number 4, five Monkeys from house number 5, six Ducks from house number 6, seven Frogs from house number 7 and eight Mice from house number 8.

Rhyme: *Two little chickens*

Two little chickens looking for some more
Along came another two and they make four
Run to the haystack, run to the pen
Run little chickens, back to mother hen.

Four little chickens getting in a fix
Along came another two and they make six
Run to the haystack, run to the pen
Run little chickens, back to mother hen.

Six little chickens perching on a gate
Along came another two and they make eight
Run to the haystack, run to the pen
Run little chickens, back to mother hen.

Eight little chickens run to mother hen
Along came another two and they make ten
Run to the haystack, run to the pen
Run little chickens, back to mother hen.

Song: *The ants go marching two by two*

The ants go marching two by two.
Hoorah! Hoorah!
The ants go marching two by two.
Hoorah! Hoorah!
The ants go marching two by two;
The little one stops to tie his shoe,
And they all go marching down
To get out of the rain.
Boom, boom, boom, boom!

Week 2

Story: *Number 10 story* (with Number 10 frieze template)

Ten Bees have been buzzing around all day drinking the juice – called nectar – from the beautiful flowers around the neighbourhood. Whenever one Bee finds a flower with juicy nectar, it does a little dance to tell the other Bees that there is food nearby.

The Bees need to find a home soon so that they can make honey from the nectar they have collected. They look at the last house in the row and decide it will make a perfect beehive – this is what bees call their homes.

Bees are very hard workers and they do their jobs well, so they set to work buzzing about to fix their beehive and make it cosy. They make their front door out of twigs from trees. The number symbol 10 and the number word ten goes on the front of the door with 10 doorbells. The Bees make curtains for their windows out of green leaves, they make candles from beeswax and they make honey for the dark nights. The queen Bee rests in the hive while the other nine worker Bees turn the nectar they have collected into honey and pour it into nine honeypots. Early the next morning all ten Bees put on their stripy yellow and black jerseys and their black boots and deliver one honeypot to each of their new neighbours: the one Elephant from house number 1, two Zebras from house number 2, three Meerkats from house number 3, four Giraffes from house number 4, five Monkeys from house number 5, six Ducks from house number 6, seven Frogs from house number 7, eight Mice from house number 8 and nine Birds from house number 9.

Song: *Ten little honey bees*

Ten little honey bees buzzing around
One went to the hive
One to a flower
How many honey bees buzzing around?
Eight little honey bees are left now.

Eight little honey bees buzzing around
One went to the hive
One to a flower
How many honey bees buzzing around?
Six little honey bees are left now.

Six little honey bees buzzing around
One went to the hive
One to a flower
How many honey bees buzzing around?
Four little honey bees are left now.

Four little honey bees buzzing around
One went to the hive
One to a flower
How many honey bees buzzing around?
Two little honey bees are left now.

Two little honey bees buzzing around
One went to the hive
One to a flower
How many honey bees buzzing around?
No more honey bees are left now.

Story: *The beehives*

Every day the ten Bees left their beehive and went buzzing around looking for flowers. One day they flew a little further into the forest where the trees were tall. They could hear the buzzing sounds of other bees and as they flew closer they could see many beehives hanging from the trees. They saw lots and lots of bees going in and out of each beehive. There were too many bees to count.

Let's pretend the counters are the bees and your lids are the beehives.

Week 3

Song: *Ten green bottles*

Ten green bottles hanging on the wall
Ten green bottles hanging on the wall
And if one green bottle should accidentally fall
There'll be nine green bottles hanging on the wall.

(Repeat for nine, eight, seven, six, five, four, three, two)

One green bottle hanging on the wall
One green bottle hanging on the wall
And if one green bottle should accidentally fall
There'll be no green bottles hanging there at all.

Story: *Number 0 story* (with Number 0 frieze template)

All the animals now lived happily side by side in their own houses. They went out of their way to be friendly and helpful to one another.

One day as Elephant looked out of his window he saw a machine digging a hole in the ground next door to him. Over the next days and weeks all the animals watched as a new house was built right before their very own eyes. Cement was mixed, bricks were laid, a roof was built and the doors and windows were fitted. Finally the house was ready. It was a beautiful house, strong and well built.

'Who will live in this splendid new house?' the animals wondered. They all gathered outside the door of the house, excited to meet their new neighbours. There was no doorbell on the door, but the four Giraffes saw that the door was open and they curled their long necks through the door. 'Anyone home?' they called. No one was home.

The animals all crowded inside. The house was empty. The Birds flew from room to room, but there was no furniture – no bed, no table and no chairs. There was nothing … zero.

To this day, nobody has moved into the new house. It has stayed empty with nothing inside it. The animals call it the zero house because this is the word that means 'nothing'.

Week 4

Song: *Clap, snap and stamp*

(To the tune of *Twinkle, twinkle, little star*)

Patterns, patterns all around
We make them using sound
Snapping, clapping, fast and slow
Ready, set, now here we go,
Everybody follow me
Make this pattern carefully …
Clap, snap fingers, stamp foot; clap, snap fingers, stamp foot (ABC pattern)

(Introduce a new pattern sequence every day)

Week 5

Song: *The directions song*

(To the tune of *This is the way …*)

Turn around and touch the ground,
Turn to the left and turn to the right.
Turn around and touch the ground,
Turn to the left and turn to the right.

Chorus:
Jump to the left and jump to the right,
Jump forward and jump back.
Jump to the left and jump to the right,
Jump forward and jump back.

Sit down and stand up,
Jump up and down and clap your hands.
Sit down and stand up,
Jump up and down and clap your hands.

Week 6

Rhyme: *Five elephants in the bathtub*

One elephant going for a swim,
Knock, knock,
Splash, splash,
Come on in.

Two elephants going for a swim,
Knock, knock,
Splash, splash,
Come on in.

Three elephants going for a swim,
Knock, knock,
Splash, splash,
Come on in.

Four elephants going for a swim,
Knock, knock,
Splash, splash,
Come on in.

Five elephants going for a swim,
Knock, knock,
Splash, splash,
They all fell in.

Story: *The Elephant's bath*

Part 1

One day Elephant left his house to go down to the river. 'Hey, Elephant,' said his neighbours, the Monkeys, 'where are you going?'

Elephant replied, 'I am going for a walk to look for a place to take a bath.'

'Hmmm,' said the Monkeys. 'That's a long way to go. We have a bathtub. Why don't you have a bath at our house?'

Part 2

Elephant explained that he would make his way down to the river to take his bath. He stopped in front of the Giraffes' house. 'Hey, Elephant,' said the Giraffes, 'why are you carrying a bucket?'

Elephant replied, 'I carry a bucket with me so that when I go to the river I can fill it up and have nice refreshing water to drink.'

As he got closer to the river, a little boy ran past Elephant and down to the river where he filled up a jug and some cups with water.

As the little boy raced past, he told Elephant that there was a fire at the campsite.

Elephant stuck his trunk into the river, filled his bucket with water from the river and followed the little boy to the fire. Elephant and the little boy emptied the water onto the fire to put it out.

Part 3

It was hot now and Elephant was keen to wallow in the cool water. As he romped and splashed around in the water and trumpeted with excitement he thought about how he could make his own swimming pool to put in his back yard. He had seen some blow-up swimming pools in the shop. He would need to find a very large swimming pool and would need to think about how to fill it.

Song: *There's a hole in my bucket*

There's a hole in my bucket, dear Sindi, dear Sindi
There's a hole in my bucket, dear Sindi, a hole.
Then mend it, dear Vuyo, dear Vuyo, dear Vuyo
Then mend it, dear Vuyo, dear Vuyo, mend it.

With what shall I mend it, dear Sindi, dear Sindi?
With what shall I mend it, dear Sindi, with what?
With straw, dear Vuyo, dear Vuyo, dear Vuyo
With straw, dear Vuyo, dear Vuyo, with straw.

The straw is too long …
Then cut it …
With what shall I cut it? …
With a knife …
The knife is too blunt …

Then sharpen it …
With what shall I sharpen it? …
With a stone …
The stone is too dry …

Then wet it …
With what shall I wet it? …
With some water …
With what shall I fetch it? …
With a bucket …
BUT THERE'S A HOLE IN MY BUCKET!

Week 7

Song: *Old Sandile had a farm*

Old Sandile had a farm
E-I-E-I-O
And on his farm he had a pig
E-I-E-I-O
With an oink-oink here
And an oink-oink there
Here an oink, there an oink
Everywhere an oink-oink
Old Sandile had a farm
E-I-E-I-O.

Old Sandile had a farm
E-I-E-I-O
And on his farm he had two horses
E-I-E-I-O
With a neigh-neigh here
And a neigh-neigh there
Here a neigh, there a neigh
Everywhere a neigh-neigh
Old Sandile had a farm
E-I-E-I-O.

Continue with:
three ducks (quack-quack here, quack-quack there)
four cows (moo-moo here, moo-moo there)
five sheep (baa-baa here, baa-baa there)
six hens (cluck-cluck here, cluck-cluck there)
seven goats (maah-maah here, maah-maah there)
eight geese (ggghuu-ggghuu here, ggghuu-ggghuu there)
nine donkeys (hee-haw here, hee-haw there)

Old Sandile had a farm
E-I-E-I-O
And on his farm he had ten snakes
E-I-E-I-O
With a sss-sss here
And a sss-sss there
Here a sss, there a sss
Everywhere a sss-sss
An oink-oink here
And an oink-oink there
Here an oink, there an oink
Everywhere an oink-oink
A neigh-neigh here
And a neigh-neigh there
Here a neigh, there a neigh
Everywhere a neigh-neigh
A quack-quack here
And a quack-quack there
Here a quack, there a quack
Everywhere a quack-quack
A moo-moo here
And a moo-moo there
Here a moo, there a moo
Everywhere a moo-moo

(Continue like this for the other animals)

Old Sandile had a farm
E-I-E-I-O-O-O-O.

Story: *Animals' race*

One day the animals woke up to find dew drops on their window panes. The sky was cloudy and the weather was cool. Elephant blew his trumpet to call the animals together. They knew they should meet in the big field behind their houses when they heard his call. He suggested that they should have a race around the field, down to the river and back. He asked the Ducks to fly up and sit in the trees to check that the runners kept to the track and the Birds and Bees to fly above the runners to see that they were safe during the race.

There wasn't a lot of space on the track so there could only be six runners in the race. There was a lot of excitement as they chose which one of the Zebras, Meerkats, Giraffes, Monkeys, Frogs and Mice would run in the race.

Eventually when the runners had been chosen, the six animals lined up. Then Elephant blew his trumpet and they took off.

Rhyme: *1 and 1*

1 and 1 is 2, double 1, double 1, *(Show one finger from each hand)*
1 and 1 is 2.
2 and 2 is 4, double 2, double 2, *(Show two fingers from each hand)*
2 and 2 is 4.
3 and 3 is 6, double 3, double 3, *(Show three fingers from each hand)*
3 and 3 is 6.

(Continue up to 5 and then repeat)

Week 9

Shape song: *If you're holding a square*

(To the tune of *If you're happy and you know it*)

If you're holding a square, stand up!
If you're holding a square, stand up!
If you're holding a square, if you're holding a square,
If you're holding a square, stand up!
(Repeat with other shapes)

Shape song: *A circle's like a ball*

(To the tune of *The farmer's in the dell*)

A circle's like a ball,
A circle's like a ball,
Round and round,
It never stops.
A circle's like a ball!

A square is like a box,
A square is like a box,
It has four sides,
They are the same.
A square is like a box!

A triangle has three sides,
A triangle has three sides,
Up the mountain,
Down, and back.
A triangle has three sides!

A rectangle has four sides,
A rectangle has four sides,
Two are long, and
Two are short.
A rectangle has four sides!

Song: *Shape Hokey Pokey*

You put your circle in,
You put your circle out,
You put your circle in,
And you shake it all about.
You do the Hokey Pokey
And you turn yourself around.
That's what it's all about!

You put your rectangle in …
You put your square in …
You put your triangle in …

Week 10

Song: *Months of the year*

January, February, March, April, May, June, July
August, September, October, November, December *(×2)*
January, February, March, April, May, June, July.

Song: *I can sort*

I can sort, I can sort, I can sort, sort, sort.
I can put things into groups, and I can sort, sort, sort.

I can sort by colour, I can sort by size.
I can sort by shape, and maybe win a prize.

I can sort, I can sort, I can sort, sort, sort.
I can put things into groups, and I can sort, sort, sort.

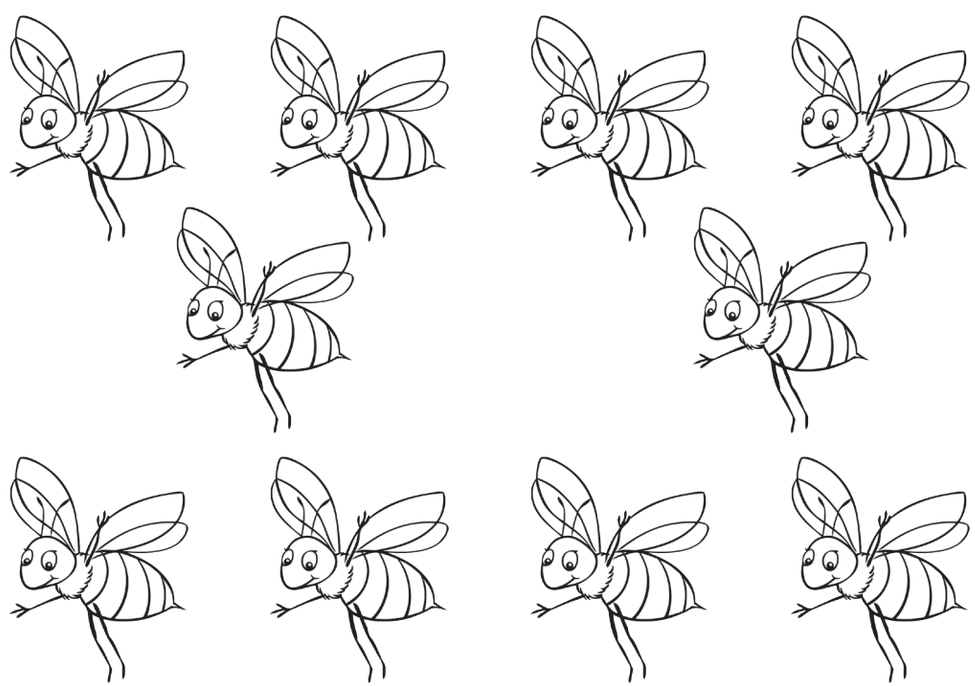
I can sort by feel, I can sort by name.
I can tell you why I think my things are all the same.

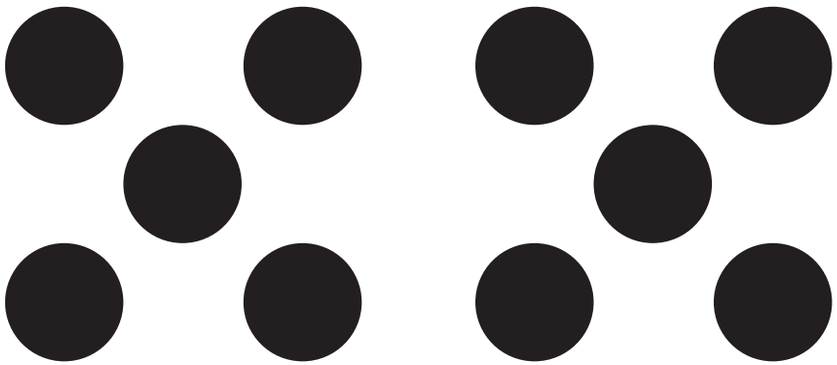
I can sort, I can sort, I can sort, sort, sort.
I can put things into groups and I can sort, sort, sort.

nine

9

10



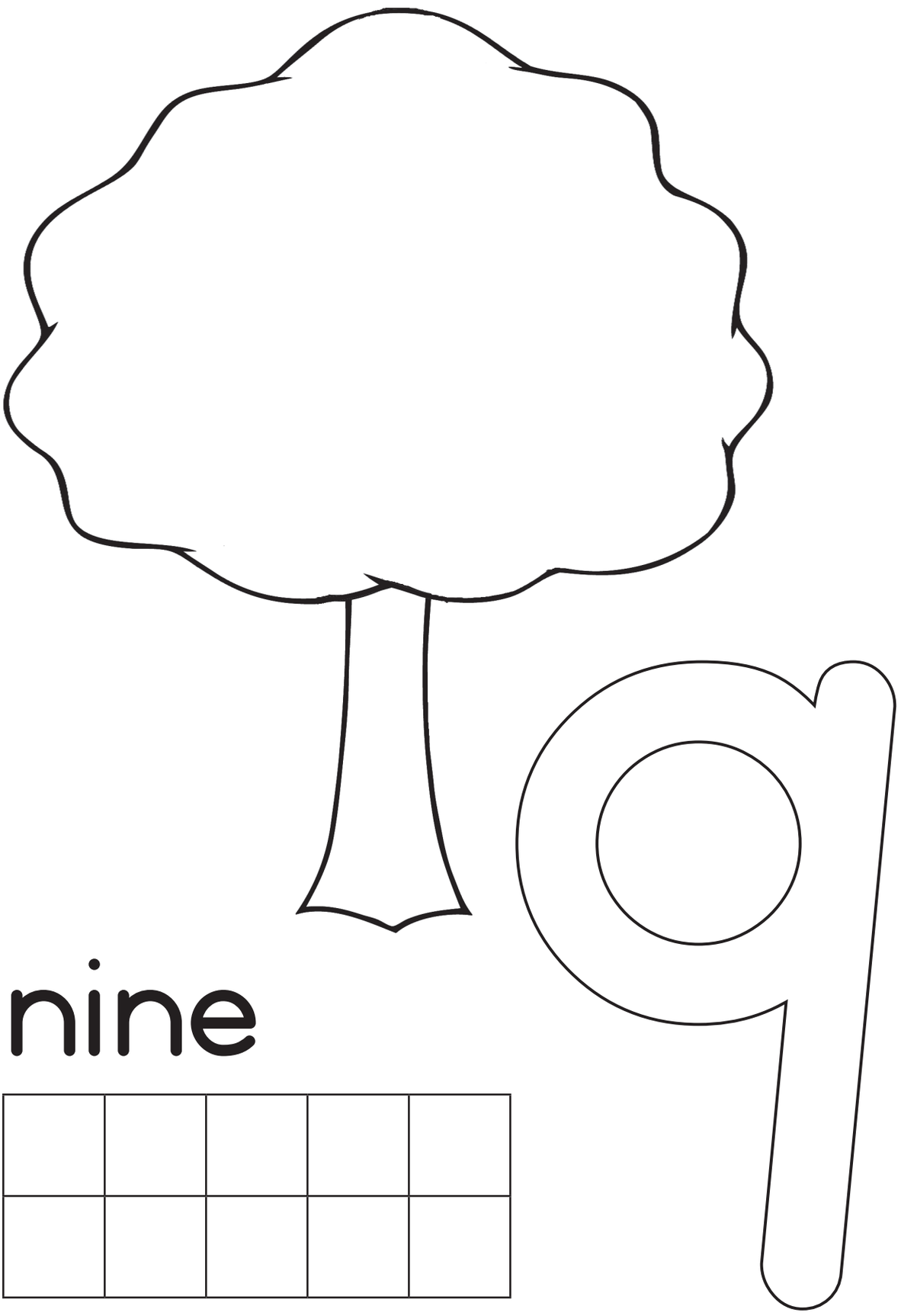


ten

zero

0

Playdough template: Number 9



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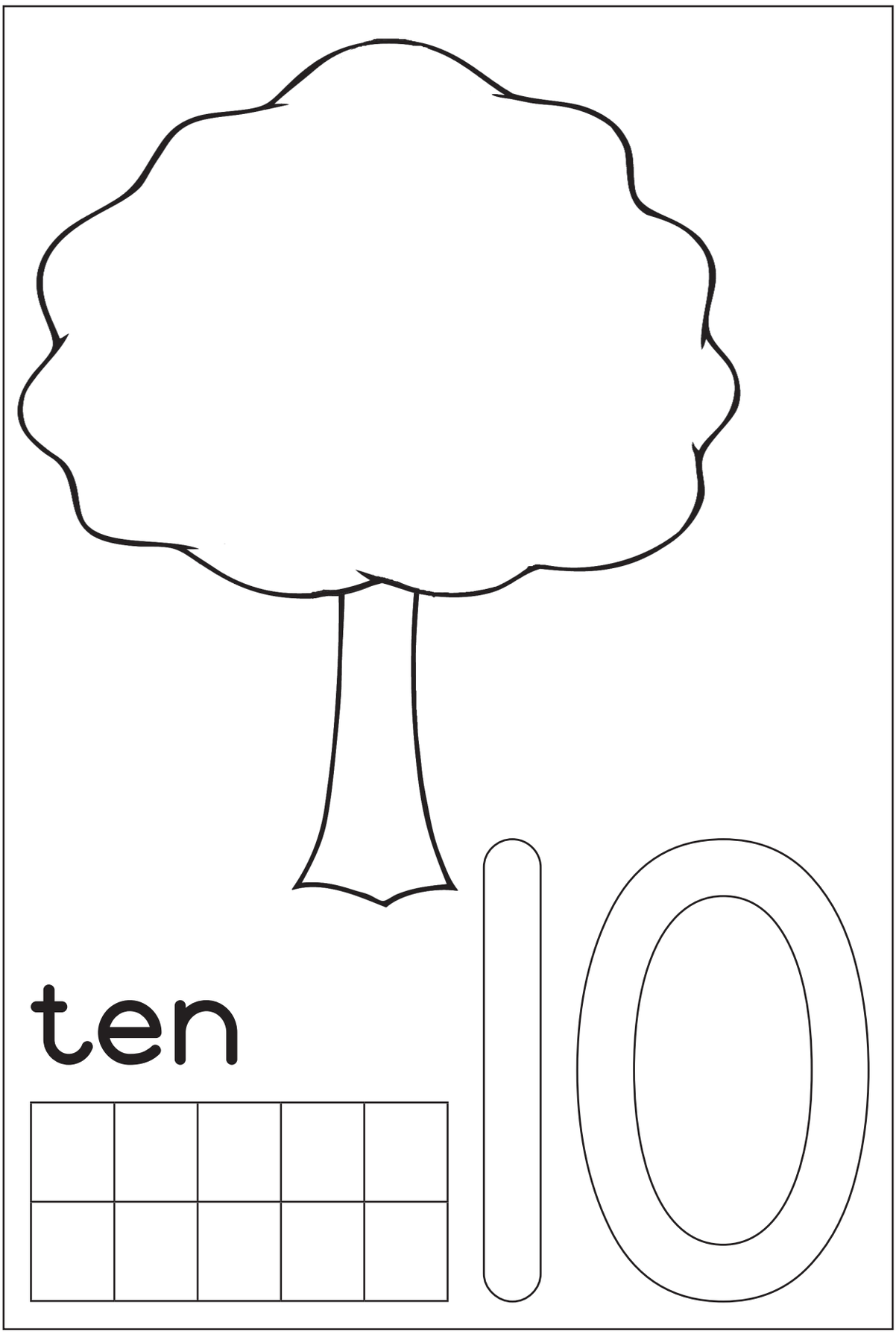

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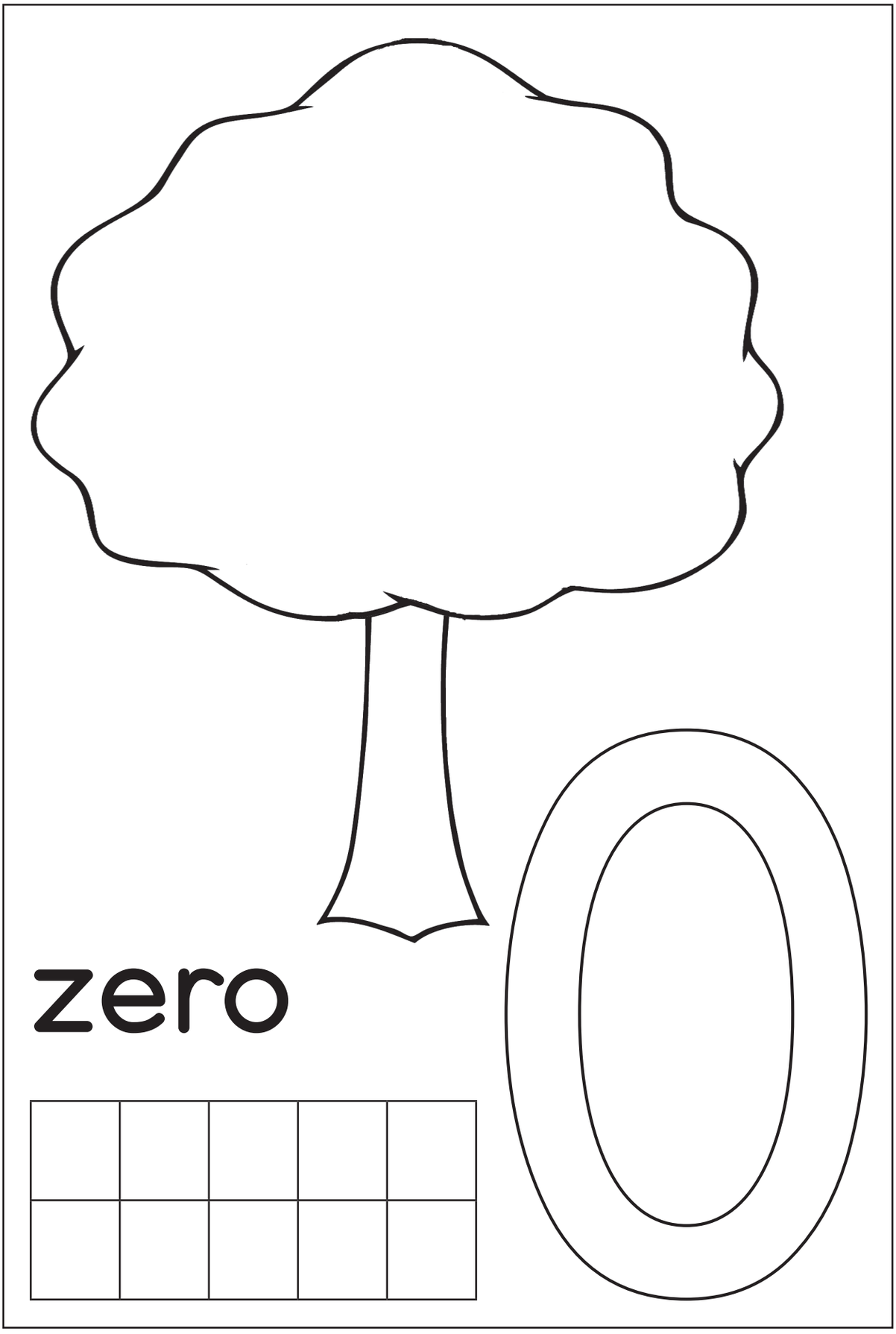
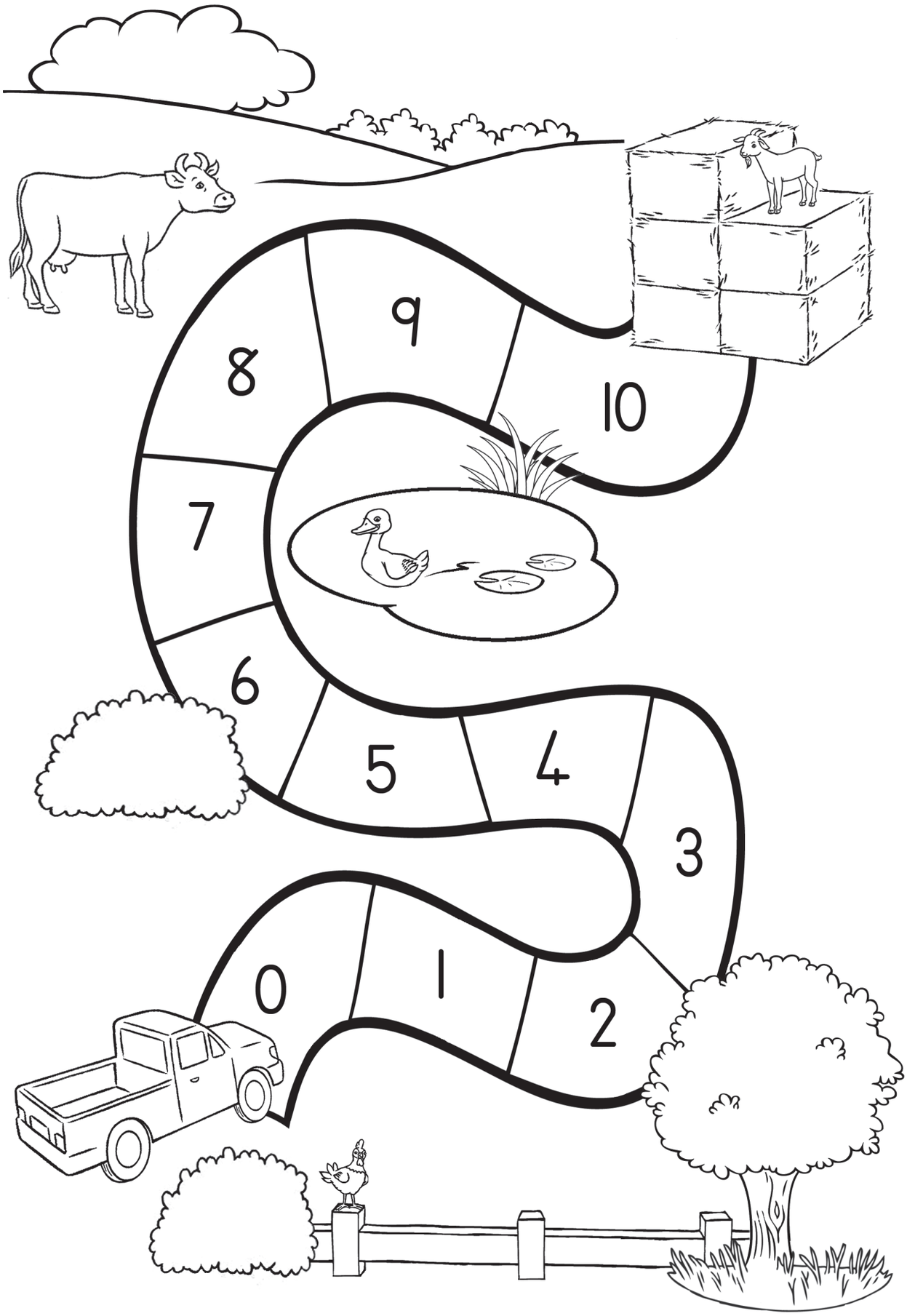
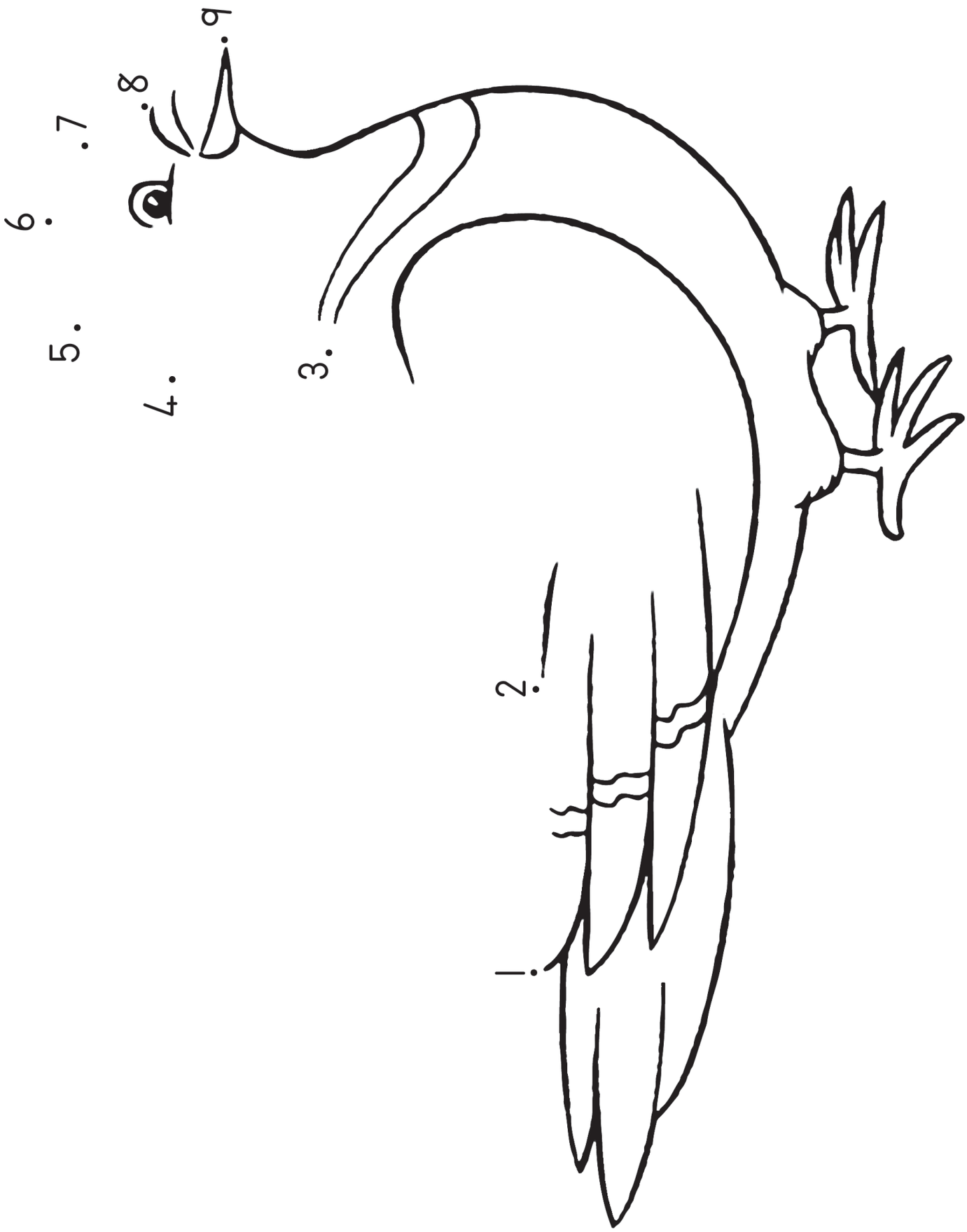


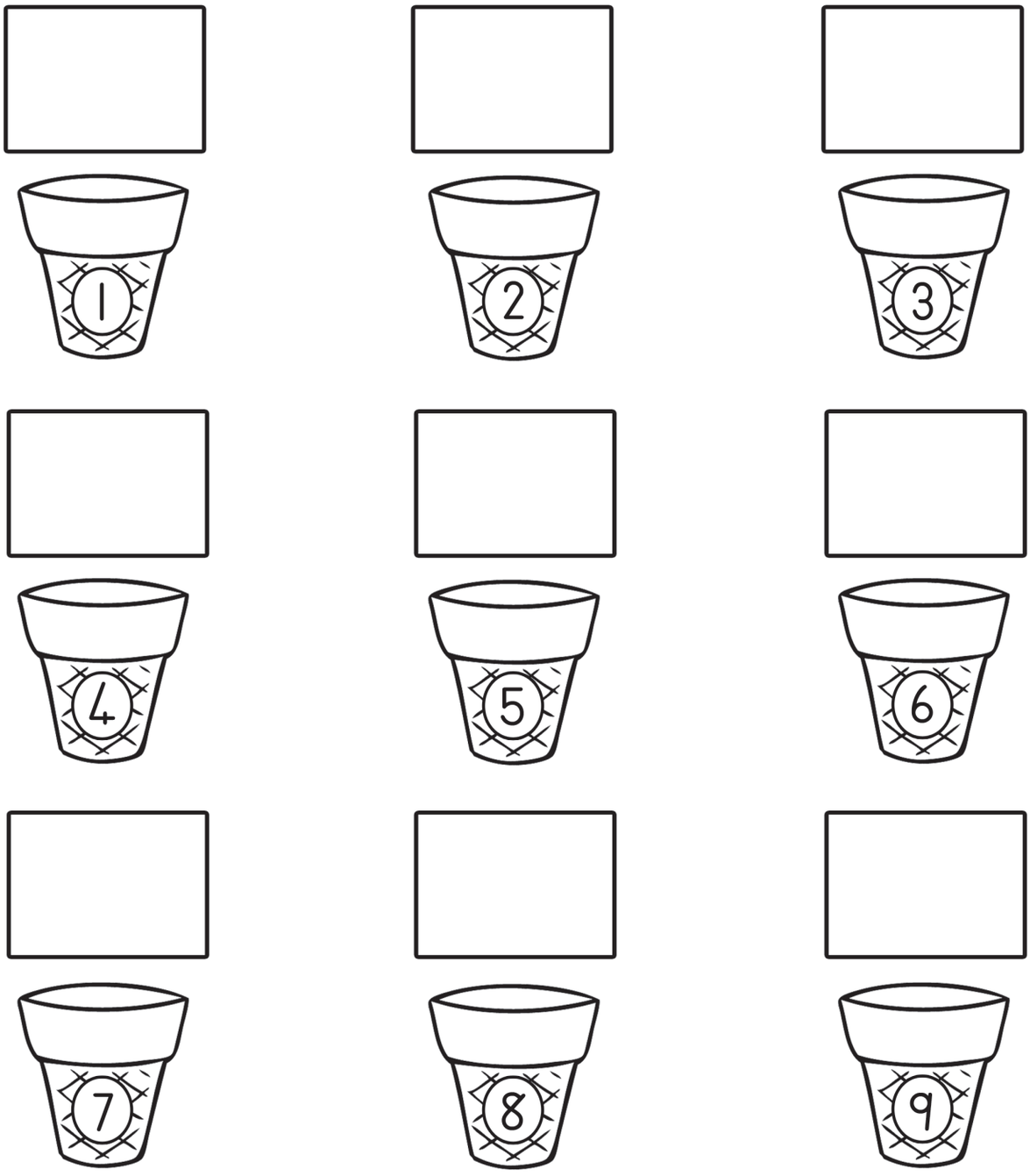
Farmyard race (Week 1)



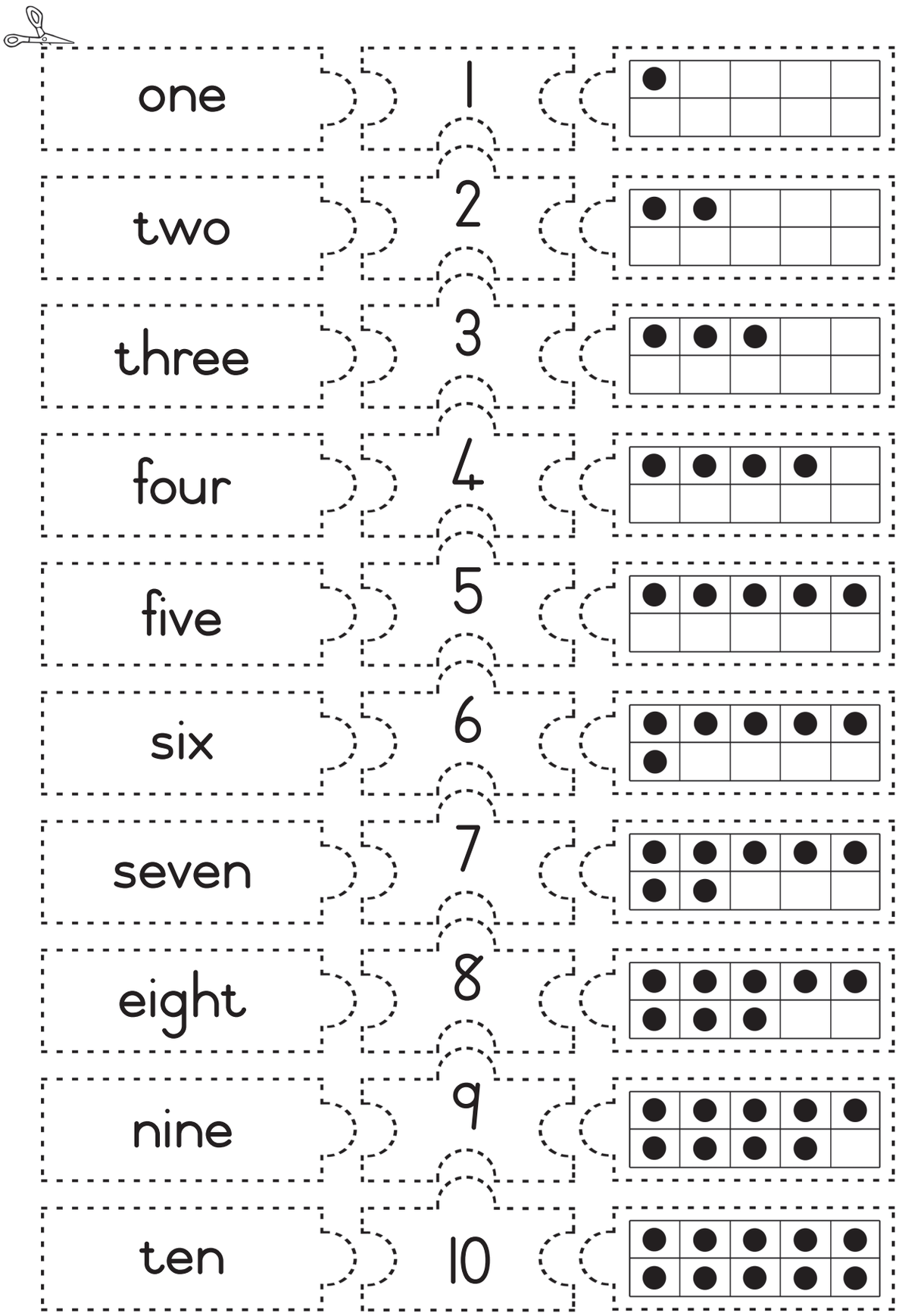
Connect-the-dots (Week 1)



Ice-cream activity (Week 1)



Number puzzle (Week 2)



Fruit grid (Week 10)

5

4

3

2

1

Twenty-four-piece puzzle