GAUTENG PROVINCE
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GROWING GAUTENG TOGETHER

Sepedi/English

Lenaneo la go Kaonafatša Thuto ya Dipalo Mphatong wa R
Grade R Mathematics Improvement Programme

Thutofatlhošo ya 2 ● Workshop 2
Pukutlhahlo ya Monolofatši ● Facilitator's Guide

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

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

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

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Programme conceptualisation and management: Cally Kuhne and Tholisa Matheza
Translation and publishing project management: Arabella Koopman
Translation co-ordination (Sotho languages): Lorato Trok
Translation: Mpho Masipa
Editing (Sepedi): Julia Theko
Illustrations: Jiggs Snaddon-Wood

Lenaneokaonafatšo la Thuto ya Dipalo Mphatong wa R ke morero wa Kgoro ya Thuto ya Gauteng (**Gauteng Department of Education**) le badirišanimmogo ba bohlokwa e lego **Gauteng Education Development Trust**.

Tšweletšo le kgatišo ya tlhahlo le dithušathuto tša phapoši tša Lenaneokaonafatšo la Thuto ya Dipalo Mphatong wa R e kgontšhitšwe ke thušo ka mašeleng go tšwa go **United States Agency for International Development** le **Zenex Foundation**.

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Schools Development Unit (SDU) kua **University of Cape Town** (UCT) ke badirišani ba sethekniki ba dipalo go Lenaneokaonafatšo la Thuto ya Dipalo Mphatong wa R. SDU ke uniti ya UCT ya School of Education yeo e hlokometšego tlhahlo le kgodišo ya dithuto tša Dipalo, Saense, Bokgoni bja go ngwala le go bala/Polelo le Mabokgoni a Bophelo go tloga go Mphato wa R go fihla go wa 12. SDU e aba dithuto tša tlhahlo ya barutiši le mangwalo a UCT a dithuto tše kopana tša tlaleletšo, tlhahlo ya mošomo yeo e ka dirwago sekolong, bongwadi bja dipuku le go dira dinyakišišo tšeo di thekgago go ithuta le go ruta mabakeng a go fapana dikolong tša Afrika Borwa.

DITEBOGO
Di lebišwa go:

- Bašomi ba Kgoro ya Thuto ya Gauteng Lefapha la Lenanethuto, Tlhahlo ya Barutiši le bašomedi ba Lefapha la Thuto ya go Ikgetha, ka maele a bona phetagatšong ya setšweletšwa se sa rena.
- Bašomi ba Western Cape Education Department (WCED) le barutiši ka maele a bona tšweletšong le tsentšhotirišong ya Grade R Mathematics Programme (*R-Maths*) profenseng ya Kapa Bodikela magareng ga mengwaga ya 2016 le 2019.
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Mosepediši wa diphetolelo (dipolelo tša Sesotho): Lorato Trok
Mofetoledi: Mpho Masipa
Morulaganyi wa polelo ya Sepedi: Julia Theko
Diswantšho: Jiggs Snaddon-Wood

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Overview

Purpose

This is the second of twelve Grade R Mathematics Improvement Programme (Maths Programme) workshops, which form part of the Gauteng Department of Education (GDE) Grade R Mathematics and Language Improvement Project.

The purpose of this workshop is to assist teachers to implement the Maths Programme in their classrooms. The focus of this workshop is Space and Shape (Geometry). Participants will strengthen their knowledge and understanding of teaching and learning in this Content Area, prepare for teaching Space and Shape (Geometry) activities in their classrooms and reflect on the guiding principles that inform teaching.

Learning outcomes

- To reflect on the implementation of Term 1 Weeks 1–2
- To explore strategies to support teaching maths in Grade R (e.g. problem solving, investigation, exploration, questioning, critical thinking, active listening, observation)
- To engage with the Maths Programme content of Term 1 Weeks 3–5 (Space and Shape (Geometry))
- To apply the Maths Programme principles in weekly planning

Workshop content

- Opening and reflection (1 hour)
- Session 1: Content overview (1 hour)

TEA

- Session 2: Space and Shape (Geometry) (2 hours)

LUNCH

- Session 3: Planning for teaching (2 hours)

Preparation

- PPT welcome and outcomes
- Copy and cut out the Appendix B strips and place them into one envelope per group.
- Set up a simple obstacle course in an open space.
- Prepare the tables with materials before each session.

Kakaretšo

Morero

Ye ke thutofatlhošo ya bobedi ya tše lesomepedi tša Lenaneo la go Kaonafatša Thuto ya Dipalo Mphatong wa R (Lenaneo la Dipalo), ye e lego karolo ya Kgoro ya Thuto Profenseng ya Gauteng (GDE) Lenaneokaonafatšo la Thuto ya Dipalo le ya Leleme Mphatong wa R.

Morero wa thutofatlhošo ke go thuša barutiši go phethagatša Lenaneo la Dipalo ka diphapošing tša bona. Nepišo ya thutofathlošo ye ke Sekgoba le Sebopego (Tšeometri). Batšeakarolo ba tlo tiišetša tsebo ya bona le kwešišo ya go ruta le go ithuta Karolo ya Diteng, ba beakanyetša go ruta mešongwana ya Sekgoba le Sebopego (Tšeometri) ka diphapošing tša bona le go naganiša ka ga ditheo tša go ruta.

Dineo tša thuto

- Go naganiša ka phethagatšo ya Kotara ya 1 Dibeke tša 1–2
- Go hlohlomiša maano a go thekga go ruta dipalo ka Mphatong wa R (mohl. tharollo ya mathata, nyakišišo, tlhohlomišo, go botšiša dipotšišo, go nagana kudu, go theeletša, tlhokomelo)
- Go šomana le diteng tša Lenaneo la Dipalo tša Kotara ya 1 Dibeke tša 3–5 (Sekgoba le Sebopego (Tšeometri))
- Go diriša ditheo tša go ruta tša Lenaneo la Dipalo peakanyong ya beke ka beke

Diteng tša thutofatlhošo

- Pulo le go naganiša (Iri e 1)
- Thuto ya 1: Kakaretšo ya diteng (Iri e 1)

TEYE

- Thuto ya 2: Sekgoba le Sebopego (Tšeometri) (Diiri tše 2)

MATENA

- Thuto ya 3: Go beakanyetša go ruta (Diiri tše 2)

Peakanyo

- Kamogelo ya PPT le ditšweletšo
- Kopolla o be o ripe meseto ya Mamatletšo B gomme o di tsenye ka onflopong e tee sehlopheng se sengwe le se sengwe.
- Beakanya lepatlelo la ditšhitišo le bonolo sekgobeng sa go bulega.
- Beakanya tafola ka didirišwa pele ga thuto ye nngwe le ye nngwe.

Materials

- Flipchart paper, kokis
- Props for obstacle course
- *Concept Guide*
- *Poster Book*
- *Activity Guide: Term 1*
- Boxes, balls and ramps for each table
- Large sheet of newsprint (for tracing around a person)
- Newsprint and crayons for each table
- Attribute blocks for each table

Didirišwa

- Pampiri ya tšhate ya go phetla, dikoki
- Didirišwa tša lepatlelo la ditšhitišo
- *Pukutlhahlo ya Mareo*
- *Puku ya Diphoustara*
- *Pukutlhahlo ya Mešongwana: Kotara ya 1*
- Mapokisi, dikgwele le merotoša tafoleng ye nngwe le ye nngwe
- Letlakala le legolo la kgatišo ya ditaba (go gatiša go dikologa motho)
- Kgatišo ya ditaba le dikherayone tafoleng ye nngwe le ye nngwe
- Dipoloko tšeo di dirišwago go hlaola tafoleng ye nngwe le ye nngwe

Opening and reflection **1 hour**

Facilitator's notes

- PPT: Open the session, welcome participants and read through the outcomes for the workshop.
- Remind participants of the *Take back to school* task from the end of Workshop 1. Ask participants to work in groups to reflect on this task and to complete **Activity 1**.
- Groups share key points with the large group.
- List examples of good practice on newsprint and encourage participants to write these down or take a photograph of the newsprint as a record.
- On the ground, place a piece of string the length of the classroom. Mark one end of the string: 1 = the Maths Programme has made a big difference to my teaching. Mark the other end of the string: 10 = the Maths Programme has made no difference to my teaching.
- Invite a few participants at a time to stand on the string indicating where they fit on the scale and to explain why they chose to stand there.

In your Workshop 1 *Take back to school* task you were asked to complete several activities. We would like you to spend a few minutes reflecting on your progress so far.

In your groups, think about your maths teaching over the past two weeks and how successfully you have implemented Term 1 Weeks 1–2.

Activity 1

In your group, discuss your successes and challenges with implementing Term 1 Weeks 1–2 of the Maths Programme. Allow each person to have a turn to present their reflections.

1. Briefly describe how you organised your classroom and how you prepared for teaching these two weeks.

_____
_____
_____

2. Discuss what worked well and what you found difficult to implement. Does anyone have any helpful suggestions?

_____
_____
_____

Pulo le go naganiša

Iri e 1

Dinoutse tša monolofatši

- PPT: Bula thuto, amogela batšeakarolo gomme o bale dineo tša thutofatlhošo.
- Gopotša batšeakarolo ka ga *Mošomo wo o tlo boelago le wona sekolong* wo o filwego mafelelong a Thutofatlhošo ya 1. Kgopela batšeakarolo go naganiša ka mošomo wo ka dihlopha le go tlatša **Mošongwana wa 1**.
- Dihlopha di abelana dintlhakgolo le sehlopha se segolo.
- Laetša mehlala ye mebotse kgatišong ya ditaba o be o hlohleletše batšeakarolo go e ngwala fase goba ba tšee senepe sa kgatišo ya ditaba bjalo e be rekhote.
- Mo fase, bea lenti la botelele bja go lekana le phapoši. Swaya maphetho a lenti ka lehlakoreng le letee: 1 = Lenaneo la Dipalo le dirile phapano ye kgolo mo go ruteng ga ka. Swaya maphetho a mangwe a lenti: 10 = Lenaneo la Dipalo gase la dira phapano mo go ruteng ga ka.
- Kgopela batšeakarolo ba mmalwa ka nako e tee gore ba eme lenting go laetša gore ba wela kae mo sekaleng gomme ba hlaloše gore ke ka lebaka la eng ba kgethile go ema fao.

Mošomong wo o tlo boelago le wona sekolong ka go Thutofatlhošo ya 1 o kgopetšwe go tlatša mešongwana ye mmalwa. Re kgopela gore o tšee metsotso ye mmalwa o naganiša ka tšwelopele ya gago go fihla ga bjale.

Ka dihlopha, naganang ka fao le rutilego dipalo dibeke tše pedi tša go feta le ka fao le phethagaditšego Kotara ya 1 Dibeke tša 1–2 ka katlego.

Mošongwana wa 1

Ka dihlopha, ahlaahlang tše le atlegilego go tšona le ditlhohlo ge le be le phethagatša Kotara ya 1 Dibeke tša 1–2 Lenaneong la Dipalo. Dumelela motho yo mongwe le yo mongwe go ba le sebaka sa go bega ka ga tše a di naganišago.

1. Ka bokopana hlaloša ka fao o rulagantšego phapoši le ka fao o beakanyeditšego go ruta dibekeng tše pedi tše.

_____

_____

_____

2. Bolelang ka tše di phethagetšego gabotse le tše di bilego bothata go phethagala. Go na le yo a nago le ditšhišinyo tše di ka thušago?

_____

_____

_____

3. Share how and when you applied the guiding principles of teaching in your daily programme Mathematics focus time?

_____

_____

_____

Facilitator's notes

- Wrap us this session with feedback from each group. Refer to specific activities in *Activity Guide: Term 1* to support what participants share.
- Discuss the video with a focus on how participants managed the teacher-guided activity in Week 2.

Video 1

Activity Guide: Term 1, Week 2, Teacher-guided activity #3 (page 46)

Watch the video of the teacher-guided activity which involves a small group of learners.

What do you think the intention of the activity is? Pay special attention to how the teacher prompts the learners with questions and how she observes each learner.

_____

_____

_____

In Workshop 1 we discussed the eight guiding principles of teaching maths in Grade R. Activity 2 requires that you to match each of the eight principles with two statements that best describe it.

Facilitator's notes

- Hand out one envelope containing the eight guiding principles of teaching and matching statements to each group.
- Explain that the participants need to match the principles with the statements to complete **Activity 2**.

Activity 2

1. Each group has been given an envelope containing a number of strips. Find the eight guiding principles of teaching and place them in a row on your table.
2. Discuss each of the statements and decide with which principle it fits best. Place the statement under this principle.

3. Abelana gore o dirišitše ditheo tša go ruta bjang le gona neng nakong ya nepišo ya lenanephethagatšo la tšatši ka tšatši la Dipalo?

_____

_____

_____

Dinoutse tša monolofatši

- Feleletša thuto ye ka go theeletša dipego go tšwa dihlopheng ka moka. Šupetša mešongwana ye itšego ka go *Pukutlhahlo ya Mešongwana: Kotara ya 1* go thekga seo batšeakarolo ba abelanago ka sona.
- Bolelang ka bideo le nepišitše ka fao batšeakarolo ba dirilego mošomo wa go hlahlwa ke morutiši Bekeng ya 2.

Bideo ya 1

Pukutlhahlo ya Mešongwana: Kotara ya 1, Beke ya 2, Mošomo wa go hlahlwa ke Morutiši #3 (letlakala la 47)

Bogelang bideo ya mošomo wa go hlahlwa ke morutiši wa sehlopha se sennyane sa barutwana.

O nagana gore maikemišetšo a mošongwana ke afe? Šetša ka fao morutiši a botšišago barutwana dipotšišo le ka fao a hlokomelago barutwana ka moka.

_____

_____

_____

Ka go Thutofatlhošo 1 re boletše ka ditheo tša go ruta dipalo tše seswai Mphatong wa R. Mošongwana wa 2 o nyaka gore o tswalanye se sengwe le se sengwe sa ditheo tša go ruta dipalo tše seswai le ditatemente tše pedi tša go se hlaloša.

Dinoutse tša monolofatši

- Efa sehlopha se sengwe le se sengwe onflopo e tee ya go ba le ditheo tša go ruta tše seswai le ditatemente tša go tswalana le tšona.
- Hlaloša gore batšeakarolo ba tswalanye ditheo tša go ruta le ditatemnte go tlatša **Mošongwana wa 2**.

Mošongwana wa 2

1. Sehlopha se sengwe le se sengwe se hweditše onflopo ya go ba le meseto ye mmalwa. Hwetša ditheo tša go ruta tše seswai gomme o di be ka molokoloko tafoleng ya gago.
2. Ahlaahlang ditatemente ka moka le bolele gore di tswalana bokaonekaone le ditheo dife tša go ruta. Bea setatemente ka tlase ga setheo se sa go ruta.

Session 1: Content overview **1 hour**

Facilitator's notes

- Refer participants to pages 126–131 of the *Concept Guide*. Remind participants that this table provides the framework for all maths planning and will be used and referenced throughout the training.
- Ask participants to work in groups to complete **Activity 3**. Ask one person from each group to share their ideas.

Term 1 Content overview: Space and Shape (Geometry)

The content for teaching and learning in Weeks 3–5 focuses mainly on the CAPS Content Area, Space and Shape (Geometry). This content involves more than teaching learners to identify geometric shapes. Their understanding of space and shape depends to a large extent on whether they understand and can use position vocabulary to describe the location of an object (e.g. on, in, next to, behind, in front of). Learners also need to be able to see objects from different positions or views (e.g. from the top, from the bottom, turned sideways, flipped upside down).

Facilitator's notes

- Ask the participants: If I say 'space and shape' what words come to mind?
- List the words that they share on flipchart paper.

Read the content overview for Space and Shape (Geometry) on pages 126–131 of the *Concept Guide*. It provides an overview of the Maths Programme content to be taught in each term of Grade R.

- The text in blue is the content from the Grade R CAPS for Mathematics.
- The text descriptions and content in black have been added to extend and build on CAPS.
- The topics are sequenced to show a developmental progression from one topic to another.

Activity 3

Look at 3.1–3.4 of the content overview for Space and Shape (Geometry) on pages 126–131 of the *Concept Guide*. In your group, do the following:

Thuto ya 1: Kakaretšo ya diteng

Iri e 1

Dinoutse tša monolofatši

- Laela batšeakarolo gore ba lebelele matlakala a 126–131 ka go *Pukutlhahlo ya Mareo*. Gopotša batšeakarolo gore tafola ye e neelana ka tlhako ya peakanyo ka moka ya dipalo gomme e tlo dirišwa le go šupetšwa tlhahlong yohle.
- Kgopela batšeakarolo go šoma ka dihlopha gomme ba tlatše **Mošongwana wa 3**. Kgopela motho o tee sehlopheng se sengwe le se sengwe gore a abelane ka dikgopolo tša bona.

Kotara ya 1 Kakaretšo ya diteng: Sekgoba le Sebopego (Tšeometri)

Diteng tša go ruta le go ithuta Dibekeng tša 3–5 di nepiša kudu Karolo ya Diteng tša SEPHOLEKE, Sekgoba le Sebopego (Tšeometri). Diteng tše di akaretša go feta go ruta bana go hlatha dibopego tša tšeometri. Kwešišo ya bona ya sekgoba le sebopego e laolwa ke kwešišo ya bona le go diriša tlotlontšu ya boemo go hlaloša lefelo leo selo se lego go lona (mohl, go, ka gare, kgauswi le, ka morago, pele ga). Barutwana a swanetše go kgona go bona dilo boemong le ponong ya go fapana (mohl, go tšwa godimo, go tšwa tlase, retološitšwe ka mathoko, bokafase bo tlile ka godimo).

Dinoutse tša monolofatši

- Botšiša batšeakarolo: Ge ke re 'sekgoba le sebopego' go tla mantšu afe monaganong?
- Ngwala mantšu ao ba a bolelago pampiring ya tšhate ya go phetla.

Bala kakaretšo ya diteng tša Sekgoba le Sebopego (Tšeometri) matlakaleng a 126–131 ka go *Pukutlhahlo ya Mareo*. E neelana ka kakaretšo ya diteng tša Lenaneo la Dipalo tšeo di tlogo rutwa kotara ka kotara Mphatong wa R.

- Tsebišo yeo e ngwadilwego ka botalalerata e tšwa go SEPHOLEKE sa Dipalo Mphatong wa R.
- Tlhalošo le diteng tšeo di ngwadilwego ka boso ke tsebo ya tlaleletšo yeo e thekgago dithuto gomme di hlamilwe ka SEPHOLEKE.
- Dihlogo di latelantšwe ka mokgwa woo di thušago go godiša tsebo go hlogo ye nngwe go ya go ye nngwe.

Mošongwana wa 3

Lebelela 3.1–3.4 go kakaretšo ya diteng tša Sekgoba le Sebopego (Tšeometri) matlakaleng a 126–131 ka go *Pukutlhahlo ya Mareo*. Sehlopheng sa gago, dirang tše di latelago:

1. Look at each topic and discuss the content and developmental progression across the four terms.

_____
_____
_____
_____

2. Look at the text in black and discuss what the Maths Programme adds to the content from CAPS.

_____
_____
_____
_____

Refer to the black text. Main additions to CAPS are:
- position of child in relation to their surroundings
- exploring 3-D objects: flat, round, square or rectangular shape
- rectangle (referred to incidentally in Term 1 and taught in Term 3)
- recognise, identify and name 2-D shapes
- comparing rectangles and squares
- curved and straight lines.

3. Why do you think that the weighting of Space and Shape (Geometry) is the second highest of the Content Areas in Grade R?

_____
_____
_____
_____

Understanding more about their world – everything around us has a shape. Learning the correct language enables learners to talk about and describe shapes.
Many of the terms also apply to understanding the position of number in the counting sequence or the sequence of items in a pattern. Many life skills depend on spatial awareness and skills, e.g. following directions or reading a map, packing things into a container, etc.

4. How have you approached teaching Space and Shape (Geometry) in your classroom? Give examples of lessons and activities that you have used in the past.

_____
_____
_____
_____

1. Lebelela hlogotaba ye nngwe le ye nngwe le ahlaahle diteng le tšwelopele dikotareng tše nne.

_____
_____
_____
_____

2. Lebelela sengwalwa sa boso gomme le ahlaahle seo se tsenywago ke Lenaneo la Dipalo ka go diteng go tšwa go SEPHOLEKE.

_____
_____
_____
_____

Lebelela sengwalwa se seso. Tša go tlaleletšwa go SEPHOLEKE ke:
- boemo bja ngwana mabapi le tikologo ya gagwe
- go hlohlomiša dilo tša 3-D: sebopego sa papetla, sediko, sekwere goba khutlonnethwii
- khutlonnethwii (ye e šupeditšwego ka go Kotara ya 1 gomme ya rutwa ka Kotara ya 3)
- lemoga, hlatha o be o bolele dibopego tša 2-D
- go bapetša dikhutlonnethwii le disekwere
- methaladi ya go kgopama le ya thwii.

3. Ke ka lebaka la eng o nagana gore boima bja Sekgoba le Sebopego (Tšeometri) ke Karolo ya Diteng ye e lego maemong a bobedi ka bogolo ka Mphatong wa R?

_____
_____
_____
_____

Kwešišo ye ntši ya lefase la bona– dilo ka moka di na le sebopego. Go ithuta leleme la go nepagala go kgontšha barutwana go bolela le go tlhaloša dibopego.
Mareo a mantši le ona a ama boemo bja nomoro tatelanong ya go bala goba tatelanong ya dilo mo patroneng. Mabokgoni a bophelo a mantši a laolwa ke temogo ya sekgoba le mabokgoni, mohl, go latela ditšhupetšo goba go bala mmepe, go paka dilo ka sekotlolong, bj.bj.

4. O rutile Sekgoba le Sebopego (Tšeometri) bjang ka phapošing ya gago? Efa mehlala ya dithuto le mešongwana ye o e dirišitšego.

_____
_____
_____
_____

Session 2: Space and Shape (Geometry) 2 hours

Spatial concepts (30 minutes)

Learners start to learn about spatial concepts such as position, direction, orientation (different views) and perspective as they use their own bodies to explore the relationship between themselves, other people and objects.

Facilitator's notes

- Set up an obstacle course using chairs, hula hoops, planks, tables and a box.
- Examples of instructions to use:
  - Take two steps forward.
  - Jump into the hula hoop.
  - Jump out of the hula hoop.
  - Stand with one leg in the hula hoop.
  - Crawl forwards through the legs of the table.
  - Stand up and turn around.
  - Take three steps backwards.
  - Put one leg inside the hula hoop.
  - Jump over the box.
  - Walk between the chairs.
  - Stand in the box.

 **Activity 4**

The facilitator has set up a simple obstacle course. With a partner take turns to guide each other through the obstacle course. Use positional and directional language to give clear instructions.

Using the *Poster Book* to talk about position and direction

Facilitator's notes

PPT: Poster 9: Ask questions that require answers that use position and direction words.

The Maths Programme's *Poster Book* provides opportunities to use real-life contexts to explore concepts. On Poster 9 of the *Poster Book* you can see where Malusi lives in relation to other people and places in his neighbourhood. This poster can be used to stimulate discussion about the position of people and objects in relation to one another and to encourage learners to use and become familiar with the language that describes space, position and direction. Learners link maths to their everyday lives as they discuss and solve problems.

Thuto ya 2: Sekgoba le Sebopego (Tšeometri)

Diiri tše 2

Mareo a sekgoba **(Metsotso ye 30)**

Barutwana ba thoma go ithuta ka mareo a sekgoba a bjalo ka boemo, tšhupetšo, peakanyo (dikgopolo tša go fapana) le tebego ge ba diriša mebele ya bona go hlohlomiša tswalano magareng ga bona, batho ba bangwe le dilo.

Dinoutse tša monolofatši
♦ Beakanya lepatlelo la ditšhitišo ka ditulo, dihula hupu, mapolanka, ditafola le lepokisi. ♦ Mehlala ya ditaelo tše o ka di dirišago: - Gata gabedi go ya pele. - Fofela ka gare ga hula hupu. - Fofela ka ntle ga hula hupu. - Ema ka leoto le letee ka gare ga hula hupu. - Gagabela pele gare ga maoto a tafola. - Emelela o retologe. - Gata gararo go ya morago. - Tsenya leoto le letee ka gare ga hula hupu. - Fofa lepokisi. - Sepela gare ga ditulo. - Ema ka lepokising.

Mošongwana wa 4

Monolofatši o beakantše lepatlelo la ditšhitišo le bonolo. Wena le modirišanimmogo wa gago šiedišanang ka go hlahlana lepatlelong la ditšhitišo. Efang ditaelo tša go hlaka le diriša leleme la boemo le tšhupetšo.

Diriša *Puku ya Diphoustara* go bolela ka boemo le tšhupetšo

Dinoutse tša monolofatši
PPT: Phoustara ya 9: Botšiša dipotšišo tša go nyaka dikarabo tša go diriša mantšu a boemo le tšhupetšo.

Puku ya Diphoustara ya Lenaneo la Dipalo e neelana ka menyetla ya go diriša dikamano tša kgonthe go hlohlomiša mareo. Mo Phoustareng ya 9 ka go *Puku ya Diphoustara* o ka bona fao Malusi a dulago malebana le batho ba bangwe le mafelo a mo motseng wa gabo. Phoustara ye e ka dirišwa go hlohleletša poledišano ka ga boemo bja batho malebana le dilo le go hlohloletša barutwana go diriša le go tlwaela leleme la go hlaloša sekgoba, boemo le tšhupetšo. Barutwana ba tswalanya dipalo le bophelo bja bona bja ka mehla ge ba ahlaahla le go rarolla mathata.

Facilitator's notes

- Ask participants to complete **Activity 5** in their small groups. Have each group report back on the activity.
- Remind participants that position and direction questions and vocabulary are introduced not only during Mathematics focus times, but are also woven into the daily programme throughout the school day. Also remind them that the teacher plays an important role in modelling appropriate vocabulary.

Activity 5

In your group, look at Poster 9 and discuss the following:

1. What position and direction words could you introduce to learners and encourage them to use?

_____

_____

_____

Position: on top of, behind, in front of, in, on, under, next to.
Direction: turn, straight, forwards, towards, away from, left, right, to, from, around, along, through.

2. What other questions could you ask learners that would help them to learn about position, direction, orientation (views) and perspective?

_____

_____

_____

Examples:
- Where is …?
- What is in front/behind/under/next to the …?
- How will Malusi get to …?

Facilitator's notes

- Draw attention to Malusi waving goodbye to Granny. Ask the participants:
  - What do you see in the picture?
  - Where do you think Malusi is going?
  - How do you think he will get there?
- List the direction words as they are called out, e.g. turn, straight, forwards, towards, away from, left, right, to, from, around, along, through.
- Ask the participants: Where in the playground could Malusi hide from the other learners?
- List the position words, e.g. top of, behind, in, on, under, bottom, next to, upside down.
- PPT: Briefly define the spatial concepts of position, direction, orientation (views) and perspective. Discuss how learners first use their own bodies to explore spatial concepts.
- Ask participants what kinds of activities in their daily programmes will help learners develop the understanding of these spatial concepts.

Refer to pages 172–177 of the *Concept Guide* to read more about space.

Dinoutse tša monolofatši

- Kgopela batšeakarolo gore ba tlatše **Mošongwana wa 5** dihlopheng tša bona tše dinnyane. Dihlopha ka moka di fe pego ka ga mošongwana.
- Gopotša batšeakarolo gore dipotšišo ka ga boemo le tšhupetšo le tlotlontšu ga di tsebišwe fela ka nako ya nepišo ya Dipalo, efela di tsenywa ka go lenanephetagatšo la tšatši ka tšatši mo letšatšing ka moka la sekolo. Ba gopotše le gore morutiši o bapala karolo ya blohlokwa ka go diriša tlotlontšu ya maleba.

Mošongwana wa 5

Sehlopheng sa gago, lebelelang Phoustara ya 9 gomme le ahlaahle tše di latelago:

1. O ka tsebiša barutwana mantšu afe a boemo le tšhupetšo le go hlohleletša gore ba a diriše?

_____

_____

_____

Boemo: godimo ga, ka morago, pele ga, ka gare, go, ka tlase, kgauswi le.
Tšhupetšo: retologa, thwii, pele, go ya, kgole le, la nngele, la go ja, go, go tšwa, go dikologa, go bapela, ka.

2. O ka botšiša barutwana dipotšišo dife tše dingwe tše di ka ba thušago go ithuta boemo, tšhupetšo, peakanyo (dipono) le tebego?

_____

_____

_____

Mehlala:
- E kae …?
- Ke eng pele ga/ka morago/ka tlase/kgauswi le …?
- Malusi o tlo fihla bjang …?

Dinoutse tša monolofatši

- Lebiša šedi go Malusi a dumediša Koko ka seatla. Botšiša batšeakarolo:
  - O bona eng seswantšhong?
  - O nagana gore Malusi o ya kae?
  - O nagana gore o tlo fihla bjang fao?
- Ge ba bolela mantšu a boemo a ngwale, mohl, retologa, thwii, pele, kgole le, la nngele, la go ja, go, go tšwa, go dikologa, go bapela, ka.
- Botšiša batšeakarolo: Malusi a ka utamela barutwana ba bangwe kae mo lepatlelong la go bapalela?
- Ngwala mantšu a boemo, mohl, godimo ga, ka morago, ka gare, go, ka tlase, botlase, kgauswi le, bokagodimo bo ka tlase.
- PPT: Ka bokopana hlaloša mareo a sekgoba a boemo, tšhupetšo, peakanyo (dipono) le tebego. Bolelang ka fao barutwana ba thomago ka go diriša mebele ya bona go hlohlomiša mareo a sekgoba.
- Botšiša batšeakarolo gore ke mešongwana efe go mananephetagatšo a bona a tšatši ka tšatši ye e tlogo thuša barutwana go kaonafatša kwešišo ya mareo a sekgoba.

Lebelela matlakala a 172–177 ka go *Pukutlhahlo ya Mareo* go bala ka ga sekgoba.

Introducing shapes (1 hour)

Facilitator's notes

- In Grade R learners recognise, identify and name three-dimensional (3-D) objects and two-dimensional (2-D) shapes.
- Refer to pages 178–189 of the *Concept Guide*.
- Discuss the terms '2-D shapes' and '3-D objects'.
- Use real objects to demonstrate as you explain the difference between these terms.

In Grade R learners focus on recognising, identifying and naming three-dimensional (3-D) objects and two-dimensional (2-D) shapes.

- 3-D means that an object has three dimensions: length, breadth (width) and height.
- 2-D means that a shape has two dimensions: length and breadth (width).

Recognising, identifying and comparing three-dimensional objects

Facilitator's notes

- Discuss how learners engage with the properties of 3-D objects as they explore everyday materials such as boxes, cans, toilet roll inners, balls and so on.
- Ask participants what they provide in their classrooms that helps learners to discuss, compare and sort objects. Explain that the next activity will demonstrate how to help learners recognise the properties of objects.
- Show the video and ask participants to complete the activity in their groups.

In Grade R learners explore the properties of everyday objects. They build constructions using recycled household materials such as boxes, cans, tubs, toilet roll inners, balls and so on. They investigate and describe box- and ball-shaped objects. They compare and sort objects and talk about similarities and differences.

 **Video 2**

Activity Guide: Term 1, Week 3, Day 1 #4 (page 54)

Watch the video of a teacher talking to learners who are sorting a collection of objects. Listen to how she prompts the learners to explain how they are sorting the objects and how to use the correct terms to describe each object.

Refer to pages 178–181 of the *Concept Guide* to read more about 3-D objects.

Go tsebiša dibopego (Iri e 1)

Dinoutse tša monolofatši

- Ka Mphatong wa R barutwana ba lemoga, go hlatha le go bolela ka dilo tša mahlakore a mararo (3-D) le dibopego tša mahlakore a mabedi (2-D).
- Lebelela matlakala a 178–189 ka go *Pukutlhahlo ya Mareo*.
- Ahlaahlang mareo 'dibopego tša 2-D' le 'dilo tša 3-D'.
- Ge o hlaloša phapano magareng ga mareo a o diriše dilo tša kgonthe.

Barutwana ba Mphato wa R ba nepiša go lemoga, go hlatha le go bolela maina a dilo tša mahlakore a mararo (3-D) le dibopego tša mahlakore a mabedi (2-D).

- 3-D e ra gore dilo tsa mahlakore a mararao: botelele, bophara le bogodimo.
- 2-D e ra gore sebopego sa mahlakore a mabedi: botelele le bophara.

Go lemoga, go hlatha le go bapetša dilo tša mahlakore a mararo

Dinoutse tša monolofatši

- Ahlaahlang ka fao barutwana ba šomanago le dipharologantšho tša 3-D ge ba hlohlomiša didirišwa tša ka mehla tše bjalo ka mapokisi, dikane, diteng tša rolo ya pampiri ya tshwamare, dibolo, bjalo le bjalo.
- Botšiša batšeakarolo gore ba fa barutwana ba bona eng ka diphapošing go ba thuša go ahlaahla, go bapetša le go hlaola dilo. Hlaloša gore mošongwana wa go latela o tlo bontšha ka fao o ka thušago barutwana go lemoga dipharologantšho tša dilo.
- Bontšha bideo o kgopele batšeakarolo go tlatša mošongwana ka dihlopha.

Ka Mphatong wa R barutwana ba hlohlomiša dipharologantšho tša dilo tša ka mehla. Ba aga dikago ka didirišwa tša ka gae tša go dirišwa gape tše bjalo ka mapokisi, dikane, diswaro, diteng tša rolo ya pampiri ya tshwamare, dibolo, bjalo le bjalo. Ba nyakišiša le go hlaloša mapokisi-le-dilo-tša-sebopego-sa-bolo. Ba bapetša le go hlaola dilo gomme ba bolela ka dilo tša go swana le tša go fapana.

Bideo ya 2

Pukutlhahlo ya Mareo: Kotara ya 1, Beke ya 3, Letšatši la 1 #4 (letlakala la 55)

Bogela bideo ya morutiši a bolela le barutwana ba go hlaola mokgobo wa dilo. Theeletša ka fao morutiši a hlohloletšago barutwana go hlaloša gore ba hlaola dilo bjang le go diriša lereo la selo la go nepagala.

Lebelela matlakala a 178–181 ka go *Pukutlhahlo ya Mareo* go bala ka ga dilo tša 3-D.

Moving from 3-D objects to 2-D shapes

Facilitator's notes

- Ask a volunteer to join you. Ask participants to look at this person from the front, the top and the side, and to describe what they see. Explain that we can view this person from many different positions if we move or if we turn them.
- Ask the volunteer to lie flat on his/her back on a large sheet of paper and trace around him/her with a koki. Once the outline has been drawn, have the participant stand up.
- Ask participants what they see on the paper.
- Ask questions that focus on the person and on the shape or outline of the person, for example: Can you look at the drawing from different positions?
- Place a number of boxes, a large piece of paper and crayons on each group's table. Explain that the participants will explore the boxes in **Activity 6**.
- After the activity discuss what participants observed. Point out that this activity helps learners create shapes by tracing around the base of objects.

In Grade R, the focus is on the properties of objects and shapes. Learners learn to identify and describe the properties of both objects and shapes.

Activity 6

Explore and describe the properties of a box.

- Place a box on a piece of paper.
- Trace around the base of the box.
- Describe the lines of your drawing.
  Straight, four, two long and two short/all the same

Go tšwa go dilo tša 3-D go ya go dibopego tša 2-D

Dinoutse tša monolofatši

- Kgopela moithaopi go dira se le wena. Kgopela batšeakarolo gore ba lebelele motho yo go thoma ka pele, ka godimo le ka thoko, gomme ba hlaloše gore ba bona eng. Hlaloša gore re ka bona motho yo go tšwa boemong bja go fapana ge re ka šuta goba ra mo retolla.
- Kgopela moithaopi gore a kaname letlakaleng le legolo la pampiri gomme o gatiše go mo dikologa ka koki. Ge o feditše go thala mothalo wa ka ntle, e re motšeakarolo a emelele.
- Botšiša batšeakarolo gore ba bona eng pampiring.
- Botšiša dipotšišo tša go nepiša motho le sebopego goba mothaladi wa motho, mohlala: O ka lebelela sethalwa go tšwa boemong bja go fapana?
- Bea mapokisi a mmalwa, seripa se segolo sa pampiri le dikherayone tafoleng ya sehlopheng se sengwe le se sengwe. Hlaloša gore batšeakarolo ba tlo hlohlomiša mapokisi **Mošongwaneng wa 6**.
- Ka morago ga mošongwana bolelang ka seo batšeakarolo ba se bonego. Laetša gore mošongwana wo o thuša barutwana go hlama dibopego ka go thala mothaladi go di dikologa.

Mphatong wa R, go nepišwa dipharologantšho tša dilo le dibopego. Barutwana ba ithuta go hlatha le go hlaloša dipharologantšho tša dilo le dibopego.

Mošongwana wa 6

Hlohlomiša le go hlaloša dipharologantšho tša lepokisi.

- Bea lepokisi seripeng sa pampiri.
- Thala mothaladi go dikologa botlase bja lepokisi.
- Hlaloša methaladi ya sethalwa sa gago.
  Thwii, nne, a mabedi a matelele le a mabedi a makopana/a swana

- Name the shape you have drawn.
- How do you know it's a square/rectangle?
- How many sides does it have?
- How many corners does it have?
- What is the difference between the box and the square/rectangle?

Recognising, describing and comparing two-dimensional shapes

Facilitator's notes

- Explain that learners also need opportunities to explore a variety of shapes to find out what the common properties of a particular shape are. Refer participants to **Activity 7** and ask them to use their attribute blocks and to follow the instructions.
- Point out that the attribute block is an object. (It has length, width and height.) If you focus on the surface of the attribute block by running your finger along the edges, you will follow the lines and trace the length and width of the shape, e.g. a square, rectangle, triangle or circle (the edge of the circle is curved).
- Ensure that participants understand the difference between 3-D and 2-D and can explain this to learners.
- Emphasise that in Grade R learners do not learn the terms 3-D and 2-D. They only talk about 'objects' and 'shapes', but they should use the correct vocabulary to describe the properties.
- Link **Activity 7** to Poster 8 and briefly discuss the shapes.
- Explain the term 'orientation'.

Learners need to observe and discuss a variety of 2-D shapes to find out what the common properties of a particular shape are, e.g. even though all triangles may not look exactly the same, they all have three sides and three corners; all rectangles have four sides regardless of the orientation.

Use the attribute blocks on your table to explore 2-D shapes.

Activity 7

In your group, talk about the shape of the surface of each attribute block.

- Look for a shape that has four corners.
- Use your finger to trace around the shape. What is the shape called?
- Look for a shape that has no straight sides.
- Use your finger to trace around the shape. What is the shape called?
- Think of a question that would encourage learners to think and reason.

Refer to pages 182–189 of the *Concept Guide* to read more about 2-D shapes.

- Bolela leina la sebopego se o se thadilego.
- O tseba bjang gore ke sekwere/khutlonnethwii?
- Se na le mahlakore a makae?
- Se na le dikhutlo tše kae?
- Phapano ke eng magareng ga lepokisi le sekwere/khutlonnethwii?

Go lemoga, go hlaloša le go bapetša dibopego tša mahlakore a mabedi

Dinoutse tša monolofatši
♦ Hlaloša gore barutwana le bona ba hloka menyetla ya go hlohlomiša dibopego tša mehutahuta go hwetša dipharologantšho tša ka mehla tša sebopego se itšego. Laela batšeakarolo gore ba lebelele **Mošongwana wa 7** o be o ba laele gore ba diriše dipoloko tša bona tša go hlaola gomme ba latele ditaelo. ♦ Bolela gore poloko ye e dirišwago go hlaola ke selo. (E na le botelele, bophara le bogodimo.) Ge o nepiša bokagodimo bja poloko ye e dirišwago go hlaola ka go sepetša menwana morumong, o tlo latela methaladi gomme wa gatiša botelele le bophara bja sebopego, mohl, sekwere, khutlonnethwii, khutlotharo goba sediko (morumo wa sediko o kgopame). ♦ Kgonthiša gore batšeakarolo ba kwešiša phapano gare ga 3-D le 2-D ebile ba ka tlhalošetša barutwana se. ♦ Tiišetša gore ka Mphatong wa R barutwana ga ba ithute mareo 3-D le 2-D. Ba bolela fela ka 'dilo' le 'dibopego', efela ba swanetše go hlaloša dipharologantšho tša ka mehla ka tlotlontšu ya go nepagala. ♦ Tswalanya **Mošongwana wa 7** le Phoustara ya 8 gomme le ahlaahle dibopego ka bokopana. ♦ Hlaloša lereo 'peakanyo'.

Barutwana ba hloka go lebelela le go bolela ka mehutahuta ya dibopego tša 2-D go hwetša gore dipharologantšho tša ka mehla tša sebopego ke dife, mohl, le ge dikhutlotharo di ka se bonale di swana, ka moka di na le mahlakore a mararo le dikhutlo tše tharo; dikhutlonnethwii ka moka di na le mahlakore a mane go sa ye le peakanyo.

Diriša dipoloko tše di dirišwago go hlaola tafoleng ya gago go hlohlomiša dibopego tša 2-D.

Mošongwana wa 7

Sehlopheng sa gago, bolelang ka sebopego sa bokagodimo bja dipoloko ka moka tša go dirišwa go hlaola.

- Lebelela sebopego sa go ba le dikhutlo tše nne.
- Dikološa sebopego ka menwana ya gago. Sebopego seo se bitšwa eng?
- Lebelela sebopego sa go hloka mahlakore a thwii.
- Dikološa sebopego ka menwana ya gago. Sebopego seo se bitšwa eng?
- Nagana ka potšišo ye e tlo hlohleletšago barutwana go nagana le go fa mabaka.

Lebelela matlakala a 182–189 ka go *Pukutlhahlo ya Mareo* go bala ka ga dibopego tša 2-D.

Symmetry **(30 minutes)**

Facilitator's notes

- PPT: Symmetrical and non-symmetrical shapes and objects. Refer to pages 188–191 of the *Concept Guide*.
- Remind participants about the **practice principle** and that learners need many opportunities to practise new skills and apply them in different contexts.

An object or shape has symmetry when it can be divided into two equal halves along a central line. Symmetrical patterns can be found on our bodies, in nature, in the built environment and in pictures. Line symmetry divides the shape into two identical parts. The line can be horizontal or vertical.

Refer to pages 188–191 of the *Concept Guide* to read more about symmetry.

The **practice principle:** Learners should have plenty of time to practise new skills and knowledge. When learners have regular practice in what they have already learnt, they become more competent and more confident. Learners enjoy repetition and practice. The Grade R teacher should provide repeated opportunities for learners to practise and improve new skills.

Tekanelo (Metsotso ye 30)

Dinoutse tša monolofatši

- PPT: Dibopego tša go lekanela le tša gose lekanele le dilo. Lebelela matlakala a 188–191 ka go *Pukutlhahlo ya Mareo*.
- Gopotša batšeakarolo ka ga **setheo sa go itlwaetša** le gore barutwana ba hloka menyetla ye mentši ya go itlwaetša mabokogni a maswa ba a diriše dikamanong tša go fapana.

Selo goba sebopego se na le tekanelo ge se kgona go arolega ka diripagare tša go lekana tše pedi go bapela le mothaladi wa gare. Dipatrone tša tekanelo di hwetšwa mebeleng ya rena, tlhagong, tikologong ya kago le diswantšhong. Tekanelo ya mothaladi e arola sebopego ka diripa tša go swana tše pedi. Mothaladi o ka rapama goba wa tsepama.

Lebelela matlakala a 188–191 ka go *Pukutlhahlo ya Mareo* go bala go gontši ka ga go lekanela.

Setheo sa go itlwaetša: Barutwana ba hloka nako ye ntši ya go itlwaetša mabokgoni a maswa le tsebo. Ge barutwana ba itlwaetša seo ba ithutilego sona ka mehla, ba ba le bokgoni bjo bontši le boitshepo. Barutwana ba ipshina ka poeletšo le go itlwaetša. Morutiši wa Mphato wa R o swanetše go neelana ka menyetla ya poeletšo gore barutwana ba itlwaetše le go kaonafatša mabokgoni a maswa.

Session 3: Planning for teaching **2 hours**

Facilitator's notes

- Refer participants to Appendix A: Term 1 Weekly Content Summary (Weeks 3–5).
- Read the whole class, teacher-guided and workstation activities sections.
- Have participants work in groups to complete **Activity 8**.

Term 1 Content Summary (Weeks 3–5) **(40 minutes)**

Appendix A: Term 1 Weekly Content Summary (Weeks 3–5) outlines the main Content Area Focus for each week, the topics to be covered, the new knowledge and practise focus for each week, and suggested activities for whole class, teacher-guided and independent group work for the week.

Read the whole class, teacher-guided and workstation activities sections and complete Activity 8.

Activity 8

Look at Appendix A: Term 1 Weekly Content Summary (Weeks 3–5). Answer the questions.

Questions	Week 3	Week 4	Week 5
What is the Content Area Focus for the week?	Space and Shape (Geometry)	Space and Shape (Geometry)	Space and Shape (Geometry)
What are the key concepts that learners will be learning?	Properties of 3-D objects Spatial concepts: in and out Big and small	Properties of 2-D shapes (circle) Symmetry	Properties of 2-D shapes (square) Backwards, forwards inside, outside
What new knowledge is introduced?	Counting objects 1–5 Properties of boxes and balls Objects that roll or slide Position: in and out Big and small Biggest and smallest	Circle Symmetry Number 2	2-D shape: square Direction: forwards and backwards Position: inside and outside
What skills are being practised?	Oral counting 1–5 Reinforce number 1 Sorting	Oral counting 1–5 Number 1 Counting objects 1–5	Circle Number concept 1 and 2 Oral counting 1–5 Counting objects 1–5

Thuto ya 3: Go beakanyetša go ruta **Diiri tše 2**

Dinoutse tša monolofatši

- Šupetša batšeakarolo Mamatletšo A: Kakaretšo ya Diteng ya Beke ka Beke ya Kotara ya 1 (Dibeke tša 3–5).
- Bala dikarolo tša mešongwana ya barutwana ka moka, ya go hlahlwa ke morutiši le ya mafelong a go šomela.
- Laela batšeakarolo go tlatša **Mošongwana wa 8** ka dihlopha.

Kakaretšo ya Diteng ya Beke ka Beke ya Kotara ya 1 (Dibeke tša 3–5) **(Metsotso ye 40)**

Mamatletšo ya A: Kotara ya 1 Kakaretšo ya Diteng ya Beke ka Beke ya (Dibeke tša 3–5) e laetša Nepišo ya Karolo ya Diteng ya beke ka beke, dihlogotaba, tsebo ye mpsha le nepišo ya go itlwaetša ya beke ka beke, le mešongwana ye e šišinyeditšwego barutwana ka moka, ya go hlahlwa ke morutiši le mešomo ya sehlopha ya go hloka tlhahlo ya beke.

Bala dikarolo tša mešongwana ya barutwana ka moka, ya go hlahlwa ke morutiši le ya mafelong a go šomela gomme o tlatše Mošongwana wa 8.

Mošongwana wa 8

Lebelela Mamatletšo ya A: Kotara ya 1 Kakaretšo ya Diteng ya Beke ka Beke (Dibeke tša 3–5). Araba dipotšišo.

Dipotšišo	Beke ya 3	Beke ya 4	Beke ya 5
Nepišo ya Karolo ya Diteng ya beke ke efe?	Sekgoba le Sebopego (Tšeometri)	Sekgoba le Sebopego (Tšeometri)	Sekgoba le Sebopego (Tšeometri)
Barutwana ba tlo ithuta mareokgolo afe?	Dipharologantšho tša dilo tša 3-D Mareo a sekgoba: ka gare le ka ntle Kgolo le nnyane	Dipharologantšho tša dibopego tša 2-D (sediko) Lekanela	Dipharologantšho tša dibopego tša 2-D (sekwere) Morago, pele ka gare, ka ntle
Go tsebišwa tsebo efe ye mpsha?	Go bala dilo 1–5 Dipharologantšho tša dikgwele le mapokisi Dilo tša go kgokologa goba go thetha Maemo: ka gare le ka ntle Kgolo le nnyane Kgolo ka go fetiša le nnyane ka go fetiša	Sediko Lekanela Nomoro 2	Dibopego tša 2-D: sekwere Tšhupetšo: pele le morago Maemo: ka gare, ka ntle
Go ikatišwa mabokgoni afe?	Go balela godimo 1–5 Go gatelela 1 Go hlaola go ya ka bogolo	Go balela godimo 1–5 Nomoro 1 Go bala dilo 1–5	Sediko Mareo a dinomoro 1 le 2 Go balela godimo 1–5 Go bala dilo 1–5

Activity Guide: Term 1: Weeks 3, 4 and 5 (60 minutes)

Video 3

Activity Guide: Term 1, Week 5, Day 3 #4 (page 90)

Watch the video of learners discussing a poster.

1. Make a note of the questions and maths problems that the teacher presents to the learners during the poster discussion.

_____
_____
_____

2. Write down other questions that the teacher could have asked.

_____
_____
_____

Refer to Weeks 3, 4 and 5 in *Activity Guide: Term 1*. Complete Activity 9 in your group.

Activity 9

1. Find Weeks 3, 4 and 5 in *Activity Guide: Term 1*. Answer the questions.
- What is the Content Area Focus for each week?
- What topics and new knowledge are taught in each week?
- How does the 'Practise' content link to the previous week?
- What do you need to get ready before teaching each week?
- Read the whole class activities and small group activities.
- Discuss in your small group how you will plan and organise your class for these three weeks of teaching.

2. Refer to Appendix A: Term 1 Weekly Content Summary (Weeks 3–5). Match the whole class and small group activities in Weeks 3, 4 and 5 of the *Activity Guide: Term 1* to the Content Summary for each week.

Remember that in Grade R assessment is informal and continuous. We need to observe learners throughout the day, inside and outside the classroom. The eye icon reminds us that we need to observe the learners while they are busy, and we need to listen carefully while they are talking to us and to their peers.

Pukutlhahlo ya Mešongwana: Kotara ya 1: Dibeke tša 3, 4 le 5

(Metsotso ye 60)

Bideo ya 3

Pukutlhahlo ya Mešongwana: Kotara ya 1, Beke ya 5, Letšatši la 3 #4 (letlala la 91)

Bogela bideo ya barutwana ba ahlaahla phoustara.

1. Ngwala dipotšišo le mathata a dipalo a go tšweletša ke morutiši barutwaneng ge ba ahlaahla phoustara.

_____

_____

_____

2. Ngwala dipotšišo tšeo morutiši a ka bego a ka di botšiša.

_____

_____

_____

Lebelela Dibeke tša 3, 4 le 5 ka go *Pukutlhahlo ya Mešongwana: Kotara ya 1*. Tlatša Mošongwana wa 9 sehlopheng sa gago.

Mošongwana wa 9

1. Hwetša Dibeke tša 3, 4 le 5 ka go *Pukutlhahlo ya Mešongwana: Kotara ya 1*. Araba dipotšišo.

- Nepišo ya Karolo ya Diteng ya beke ye nngwe le ye nngwe ke efe?
- Beke ye nngwe le ye nngwe go rutwa dihlogotaba dife le tsebo ye mpsha?
- Diteng tša 'Go itlwaetša' di tswalana bjang le beke ya go feta?
- Beke ye nngwe le ye nngwe o ipeakanya bjang pele o ruta?
- Bala mešongwana ya barutwana ka moka le mešongwana ya dihlopha tše dinnyane.
- Sehlopheng se sennyane bolelang gore le tlo beakanya le go rulaganya diphapoši tša lena bjang dibekeng tše tharo tša go ruta.

2. Lebelela Mamatletšo ya A: Kotara ya 1 Kakaretšo ya Diteng ya Beke ka Beke (Dibeke tša 3–5). Bapetša mešongwana ya barutwana ka moka le ya dihlopha tše dinnyane ya Dibeke tša 3, 4 le 5 ka go *Pukutlhahlo ya Mešongwana: Kotara ya 1* le Kakaretšo ya Diteng ya beke ye nngwe le ye nngwe.

O gopole gore ka Mphatong wa R tekolo ga se ya semmušo gomme e tšwela pele. Re swanetše go lebelela barutwana letšatši ka moka, ka gare le ka ntle ga phapoši. Aekhone ya leihlo e re gopotša gore re hloka go hlokomela barutwana ge ba šoma, ebile re hloka go ba theeletša ka hlokomelo ge ba bolela le rena le barutwana ba bangwe.

The Maths Programme is designed around the rotation of small groups during a week and the teacher pays special attention to one group a day, watching and listening as the learners complete specific tasks. This time gives the teacher the opportunity to carefully observe each learner and gather information on their progress.

Look at the shaded block at the end of the teacher-guided activity: '**Check that learners are able to**'. The teacher makes a mental note of each learner and once the learners have left for the day she writes down her observations in a dedicated observation book that has space for each learner's notes.

Closing activities (20 minutes)

Facilitator's notes
♦ **Lessons learnt:** Ask participants to think about what they have learnt during the workshop and to complete **Activity 10** individually. ♦ **Take back to school task:** Read through this task. Ask if there is anything that is not clear and that requires more explanation. ♦ **Evaluation:** Hand out copies of the Workshop Evaluation Form and have participants complete the form. ♦ **Next workshop:** Give dates for the next workshop and close the workshop.

Activity 10

Lessons learnt: Think about what you learnt during the workshop and complete the table.

Things I am already doing that work well	**New ideas that I would like to try**

Lenaneo la Dipalo le diretšwe go fana sebaka ga dihlopha tše nnyane mo bekeng gomme morutiši o fa sehlopha se setee šedi ya go kgethega ka letšatši, a bogetše le go theeletša barutwana ge ba dira mošomo wo itšego. Nako ye e fa morutiši monyetla wa go lebelela morutwana yo mongwe le yo mongwe gabotse le go kgoboketša tshedimošo ya tšwelopele ya bona.

Lebelela poloko ya go fifatšwa mafelelong a mošongwana wa go hlahlwa ke morutiši: '**Lekola gore barutwana ba kgona go**'. Morutiši o swara tše a di bonago ka ga morutwana yo mongwe le yo mongwe ka hlogong gomme ge barutwana ba ile gae, o ngwala se a se bonego ka pukung ya temogo ya go ba le sekgoba sa morutwana yo mongwe le yo mongwe.

Mešongwana ya go tswalela **(Metsotso ye 20)**

Dinoutse tša monolofatši

- **Thuto ye go ithutilwego yona:** Kgopela batšeakarolo go nagana ka se ba ithutilego sona ka thutofatlhošong le go feleletša **Mošongwana wa 10** ka o tee ka o tee.
- **Mošomo wo o tlo boelago le wona sekolong:** Bala mošomo wo. O botšiše ge go na le seo se sa kwagalego gabotse sa go nyaka tlhalošo ye ntši.
- **Tekolo:** Aba dikhophi tša Foromo ya Tekolo ya Thutofatlhošo gomme batšeakarolo ba e tlatše.
- **Thutofatlhošo ya go latela:** Efa matšatšikgwedi a thutofatlhošo ya go latela gomme o tswalele thutofatlhošo.

Mošongwana wa 10

Dithuto tše go ithutilwego tšona: Nagana ka se o ithutilego sona ka thutofatlhošong gomme o feleletše tafola.

Dilo tše ke di dirago tše di šomago gabotse	Dikgopolo tše diswa tše ke ratago go di leka

Take back to school task

1. Read the *Concept Guide* pages that were referred to during this workshop.
2. Prepare a Space and Shape (Geometry) maths area. Take a photograph of it and bring it to the next workshop.
3. Use *Activity Guide: Term 1* to plan and implement Weeks 3–5 of the Maths Programme. When planning, think about how the guiding principles will inform your planning and teaching:

   - How will you find out what learners already know and understand? (**level principle**)

   - How will you build on the prior knowledge that learners bring from home? (**context principle**)

   - How will you ensure that the planned activities are meaningful for learners? (**context principle**)

   - How will you build active listening and speaking into your planned activities? (**interaction principle**)
4. Write a reflection of what worked well and what did not work so well. Bring your reflection notes and some examples of work that the learners did to the next workshop.

Evaluation

Complete the Evaluation Form.

Mošomo wo o tlo boelago le wona sekolong

1. Bala matlakala a *Pukutlhahlo ya Mareo* ao a šupeditšwego ka thutofatlhošong ye.
2. Beakanya karolo ya dipalo ya Sekgoba le Sebopego (Tšeometri). Tšea senepe sa yona o tle le sona thutofatlhošong ya go latela.
3. Diriša *Pukutlhahlo ya Mešongwana: Kotara ya 1* go beakanya le go phethagatša Dibeke tša 3–5 tša Lenaneo la Dipalo. Ge o beakanya, naganiša ka fao ditheo di tlogo ba motheo wa peakanyo ya gago le go ruta:

   - O tlo hwetša bjang seo barutwana ba šetšego ba se tseba le go se kwešiša? (**setheo sa kgato ya maleba**)

   - O tlo aga bjang go seo barutwana ba šetšego ba se tseba go tšwa gae? (**setheo sa dikamano/sebaka**)

   - O tlo kgonthiša bjang gore mešongwana ya go beakanywa e ba bohlokwa barutwaneng? (**setheo sa dikamano/sebaka**)

   - O tlo aga go theeletša le go bolela bjang ka mešongwaneng ye o e beakanyago? (**setheo sa tswalano)**
4. Ngwala se o naganago gore se diragetšego gabotse le seo se sa diragalago gabotse. O tle le dinoutse tša gago tša go naganiša le mehlala ya mešomo ye e dirilwego ke barutwana thutofatlhošong ya go latela.

Tekolo

Tlatša Foromo ya Tekolo.

APPENDIX A: TERM 1 WEEKLY CONTENT SUMMARY (WEEKS 3–5)

Term 1: Activity Plan

<table>
<tr><th colspan="5">Week 3</th></tr>
<tr><td colspan="5">CONTENT AREA: SPACE AND SHAPE (GEOMETRY)</td></tr>
<tr><td colspan="5">TOPIC: Recognise, identify and name 3-D objects; describe, sort and compare 3-D objects (boxes and balls); position, orientation and views: in and out
INTRODUCE NEW KNOWLEDGE: Counting objects 1–5, properties of boxes and balls, objects that roll or slide, position: in and out, big/small, biggest/smallest
PRACTISE: Oral counting 1–5, reinforce number concept (1), sorting</td></tr>
<tr><th colspan="2">Whole class activities</th><th>Teacher-guided activity</th><th colspan="2">Workstation activities</th></tr>
<tr><td>Day 1</td><td>Explore properties of boxes and balls.</td><td rowspan="5">Counting one-to-one correspondence 1–5.
Big and small game.
Properties of boxes and balls.
Compare boxes and balls.
Sort objects that slide and roll.</td><td>Activity 1
Activity 2
Activity 3
Activity 4</td><td>Construct objects with boxes.
Big and small playdough balls – sorting.
Paint prints with boxes or blocks.
Build animal shelters for the farm animals with building blocks.</td></tr>
<tr><td>Day 2</td><td>Compare sizes of boxes and balls.</td></tr>
<tr><td>Day 3</td><td>Explore which can slide, which can roll; big/biggest and small/smallest.</td></tr>
<tr><td>Day 4</td><td>Discuss why objects roll and slide.</td></tr>
<tr><td>Day 5</td><td>Position: in and out.</td></tr>
<tr><th colspan="5">Week 4</th></tr>
<tr><td colspan="5">CONTENT AREA: SPACE AND SHAPE (GEOMETRY)</td></tr>
<tr><td colspan="5">TOPIC: Recognise, identify and name 2-D shapes (circle); compare 3-D objects and 2-D shapes; symmetry
INTRODUCE NEW KNOWLEDGE: Circle, symmetry, introduce number 2
PRACTISE: Oral counting 1–5, counting objects 1–5, number 1</td></tr>
<tr><th colspan="2">Whole class activities</th><th>Teacher-guided activity</th><th colspan="2">Workstation activities</th></tr>
<tr><td>Day 1</td><td>Introduce 2; number frieze story.</td><td rowspan="5">Naming the shape and colour of counters from the Resource Kit.
Circle activity – properties.
Number dot cards, pictures and symbols 1 and 2.</td><td>Activity 1
Activity 2
Activity 3
Activity 4</td><td>Playdough template – make 2.
Circle prints – paint and containers.
‘Plate’ template – cut and paste pictures of food.
Body puzzles.</td></tr>
<tr><td>Day 2</td><td>What is a shape? Introduce the circle.</td></tr>
<tr><td>Day 3</td><td>Find circles in the classroom.</td></tr>
<tr><td>Day 4</td><td>Count different body parts; explore symmetry in their own body.</td></tr>
<tr><td>Day 5</td><td>Circle (use poster) and symmetry in a picture.</td></tr>
</table>

MAMATLETŠO YA A: KOTARA YA 1 KAKARETŠO YA DITENG YA BEKE KA BEKE (DIBEKE TŠA 3–5)

Kotara ya 1: Peakanyo ya Mošongwana

<table>
<tr><th colspan="5">Beke ya 3</th></tr>
<tr><td colspan="5">KAROLO YA DITENG: SEBOPEGO LE SEKGOBA (TŠEOMETRI)</td></tr>
<tr><td colspan="5">HLOGOTABA: Lemoga, hlatha le go bolela dilo tša 3-D; hlaloša, hlaola o be o bapetše dilo tša 3-D (mapokisi le dibolo); boemo, peakanyo le pono: ka gare le ka ntle
TSEBIŠA TSEBO YE MPSHA: Go bala dilo 1–5, dipharologantšho tša mapokisi le dikgwele, dilo tša go kgokologa goba go thetha, boemo: ka gare le ka ntle, kgolo/nnyane, kgolo ka go fetiša/nnyane ka go fetiša
GO IKATIŠA: Go balela godimo 1–5, go tiišetša lereo la nomoro (1), go hlaola</td></tr>
<tr><th colspan="2">Mešongwana ya barutwana ka moka</th><th>Mošomo wa go hlahlwa ke morutiši</th><th colspan="2">Mešongwana ya mafelong a go šomela</th></tr>
<tr><td>Letšatši la 1</td><td>Hlohlomiša dipharologantšho tša mapokisi le dikgwele.</td><td rowspan="5">Go bala tee-ka-tee tša go swana 1–5.
Moraloko o mogolo le o monnyane.
Dipharologantšho tša mapokisi le dikgwele.
Bapetša mapokisi le dikgwele.
Bapetša dilo tša go thetha le go kgokologa.</td><td>Mošongwana wa 1
Mošongwana wa 2

Mošongwana wa 3
Mošongwana wa 4</td><td>Aga dilo ka mapokisi.
Dikgwele tša tlhama tše dikgolo le tše dinnyane – go hlaola.
Penta dikgatišo tša mapokisi le dipoloko.
Agela diphoofolo tša polaseng mašaka ka dipoloko tša go aga.</td></tr>
<tr><td>Letšatši la 2</td><td>Bapetša bogolo bja mapokisi le dikgwele.</td></tr>
<tr><td>Letšatši la 3</td><td>Hlohlomiša gore ke dife tša go thetha, ke dife tša go kgokologa; kgolo/kgolo ka go fetiša le nnyane/nnyane ka go fetiša.</td></tr>
<tr><td>Letšatši la 4</td><td>Ahlahlang gore ke ka lebaka la eng dilo di kgokologa goba di thetha.</td></tr>
<tr><td>Letšatši la 5</td><td>Boemo: ka gare le ka ntle.</td></tr>
<tr><th colspan="5">Beke ya 4</th></tr>
<tr><td colspan="5">KAROLO YA DITENG: SEBOPEGO LE SEKGOBA (TŠEOMETRI)</td></tr>
<tr><td colspan="5">HLOGOTABA: Lemoga, hlatha le go bolela dibopego tša 2-D (sediko); bapetša dilo tša 3-D le dibopego tša 2-D; lekanela
TSEBIŠA TSEBO YE MPSHA: Sediko, lekanela, tsebiša nomoro 2
GO IKATIŠA: Go balela godimo 1–5, go bala dilo 1–5, nomoro 1</td></tr>
<tr><th colspan="2">Mešongwana ya barutwana ka moka</th><th>Mošomo wa go hlahlwa ke morutiši</th><th colspan="2">Mešongwana ya mafelong a go šomela</th></tr>
<tr><td>Letšatši la 1</td><td>Tsebiša 2; kanegelo ya tšhate ya tlotlontšu le dinomoro.</td><td rowspan="5">Go fa leina la sebopego le mmala wa dibaledi tša ka gare ga Dithušathuto tša Phaposi.
Dikološa dipharologantšho-tša-mešongwana.
Dikarata tša marontho tša dinomoro, diswantšho le maswao a 1 le 2.</td><td>Mošongwana wa 1
Mošongwana wa 2
Mošongwana wa 3

Mošongwana wa 4</td><td>Thempholeiti ya tlhama – dira 2.
Dikgatišo tša sediko – pente le dikotlolo.
Thempoleiti ya ‘Poleiti’ – ripa o be o kgomaretše diswantšho tša dijo.
Marara a mmele.</td></tr>
<tr><td>Letšatši la 2</td><td>Sebopego ke eng? Tsebiša sediko.</td></tr>
<tr><td>Letšatši la 3</td><td>Hwetša didiko ka phapošing.</td></tr>
<tr><td>Letšatši la 4</td><td>Bala ditho tša mmele tša go fapana; hlolhomiša tekanelo mebeleng ya bona.</td></tr>
<tr><td>Letšatši la 5</td><td>Sediko (diriša phoustara) le tekanelo seswantšhong.</td></tr>
</table>

<table>
<tr><th colspan="5">Week 5</th></tr>
<tr><td colspan="5">CONTENT AREA: SPACE AND SHAPE (GEOMETRY)</td></tr>
<tr><td colspan="5">TOPIC: Recognise, identify and name 2-D shapes (square); compare 3-D objects and 2-D shapes (box and square); direction: forwards/backwards; position: inside/outside
INTRODUCE NEW KNOWLEDGE: Square, directionality (forwards/backwards), position (inside/outside)
PRACTISE: Circle, oral counting 1–5, counting objects 1–5, number concept 1 and 2</td></tr>
<tr><th colspan="2">Whole class activities</th><th>Teacher-guided activity</th><th colspan="2">Workstation activities</th></tr>
<tr><td>Day 1</td><td>Introduce the square (vocabulary).</td><td rowspan="5">Oral counting/matching dot, number cards 1 and 2.
Touch counting Unifix blocks, build Unifix towers.
Properties of a box and a square.
Feely bag (boxes and balls).
2-D square activity – tracing around a box.
Position (inside/outside).</td><td>Activity 1</td><td>Playdough with circle and square cookie cutter to make model.</td></tr>
<tr><td>Day 2</td><td>Properties of the square; difference between circle and square.</td><td>Activity 2</td><td>Cut out squares and paste to make a picture.</td></tr>
<tr><td>Day 3</td><td>Word problem (Poster Book) – square; find squares in the class.</td><td>Activity 3</td><td>Sorting square-shaped and circle-shaped objects.</td></tr>
<tr><td>Day 4</td><td>Directionality (forwards and backwards).</td><td>Activity 4</td><td>Puzzles (minimum six pieces).</td></tr>
<tr><td>Day 5</td><td>Make patterns with squares, colours.</td><td></td><td></td></tr>
</table>

<table>
<tr><th colspan="5">Beke ya 5</th></tr>
<tr><td colspan="5">KAROLO YA DITENG: SEBOPEGO LE SEKGOBA (TŠEOMETRI)</td></tr>
<tr><td colspan="5">HLOGOTABA: Lemoga, hlatha le go bolela dilo tša (sekwere); bapetša dilo tša 3-D le dibopego tša (lepokisi le sekwere); tšhupetšo: pele/morago; boemo: ka gare/ka ntle
TSEBIŠA TSEBO YE MPSHA: Sekwere, tšhupetšo (pele/morago), boemo (ka gare/ka ntle)
GO IKATIŠA: Sediko, go balela godimo 1–5, go bala dilo 1–5, mareo a dinomoro 1 le 2</td></tr>
<tr><th colspan="2">Mešongwana ya barutwana ka moka ka phapošing</th><th>Mošomo wa go hlahlwa ke morutiši</th><th colspan="2">Mešongwana ya mafelong a go šomela</th></tr>
<tr><td>Letšatši la 1</td><td>Tsebiša sekwere (tlotlontšu).</td><td rowspan="6">Go balela godimo/lerontho la go tswalana, dikarata tša dinomoro 1 le 2.
Kgoma dipoloko tša Unifix tša go balela, aga ditora tša Unifix.
Dipharologantšho tša lepokisi le sekwere.
Mokotla wa go phopholwa (mapokisi le dibolo).
Mošongwana wa sekwere sa 2-D – go gatiša go dikološa lepokisi.
Boemo (ka gare/ka ntle).</td><td>Mošongwana wa 1</td><td>Tlhama le seripa-dikokisana sa sediko le sa sekwere go dira motlele.</td></tr>
<tr><td>Letšatši la 2</td><td>Dipharologantšho tša sekwere; phapano magareng ga sediko le sekwere.</td><td>Mošongwana wa 2</td><td>Ripa disekwere o di kgomaretše go dira seswantšho.</td></tr>
<tr><td>Letšatši la 3</td><td>Palo ya mantšu (Puku ya Diphoustara) – sekwere; hwetša disekwere ka phapošing.</td><td>Mošongwana wa 3</td><td>Go hlaola dilo tša sebopego sa sekwere le sebopego sa sediko.</td></tr>
<tr><td>Letšatši la 4</td><td>Tšhupetšo (pele/morago).</td><td>Mošongwana wa 4</td><td>Marara (diripa tše tshela bonnyane).</td></tr>
<tr><td>Letšatši la 5</td><td>Dira dipatrone ka disekwere, mebala.</td><td></td><td></td></tr>
</table>

Workshop 2 Evaluation Form

1. Did the workshop meet your expectations?

_____
_____
_____
_____

2. What did you learn in this workshop that helped you the most?

_____
_____
_____
_____

3. Was there anything that you did not like or had difficulty understanding?

_____
_____
_____
_____

4. How will you apply what you have learnt in your Grade R classroom?

_____
_____
_____
_____

5. Do you have any suggestions for improving further workshops?

_____
_____
_____
_____

Foromo ya Tekolo ya Thutofatlhošo ya 2

1. Na thutofatlhošo e fihleletše tše o bego o di lebeletše?

_____
_____
_____
_____

2. O ithutile eng thutofatlhošo ye se se go thušitšego kudu?

_____
_____
_____
_____

3. Go na le se o se go wa se rata goba o sa se kwešiše go?

_____
_____
_____
_____

4. O tlo phethagatša se o ithutilego sona bjang phapošing ya gago ya Mphato wa R?

_____
_____
_____
_____

5. Go na le tše o di šišinyago go kaonafatša dithutofatlhošo tše di latelago?

_____
_____
_____
_____