



**GAUTENG PROVINCE**  
EDUCATION  
REPUBLIC OF SOUTH AFRICA

**GGT 2030**  
GROWING GAUTENG TOGETHER

IsiNdebele/English

# **Ihlelo lokuThuthukisa iimBalo zeGreyidi R Grade R Mathematics Improvement Programme**



**Isifundobandulo 2 • Workshop 2  
Umhlahlandlela womKghonakalisi • 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**.

The development and production of the training and classroom resources for the Grade R Mathematics and Language Improvement Project were made possible by generous project funding from the **United States Agency for International Development** and the **Zenex Foundation**.

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.

## ACKNOWLEDGEMENTS

Special thanks to:

- The Gauteng Department of Education Curriculum, Teacher Education and Special Education Directorate officials for their contribution to the adaptation of our materials.
- The Western Cape Education Department (WCED) officials and teachers for their contribution to the successful implementation of the Grade R Mathematics Programme (R-Maths) in the Western Cape between 2016 and 2019.
- The R-Maths writing team: SDU staff and consultants.



The Grade R Mathematics Improvement Programme is adapted from *R-Maths*, first published in 2017 by the Schools Development Unit, University of Cape Town. Copyright of *R-Maths* is held by the University of Cape Town.

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IPhrojekthi yokuThuthukiswa kweemBalo namaLimi kwaGreyidi R imuzamo womNyango wezeFundo weGauteng (Gauteng Department of Education) nombambisani wayo oqakathekileko, i-Gauteng Education Development Trust.

Ukwenziwa nokukhiqizwa kweensetjenziswa zebandulo nezetlasi zePhrojekthi yokuThuthukiswa kweemBalo namaLimi kwaGreyidi R kukhona ngomusa wokusekelwa ngemali yephrojekthi ebuya ku-United States Agency for International Development kunye ne-Zenex Foundation.

IPhrojekthi yokuThuthukiswa kweemBalo namaLimi kwaGreyidi R ilawulwa yi-JET Education Services ne-Schools Development Unit ye-UCT kunye ne-Wordworks njengabambisani kezobuqharhaqharha.

ISchools Development Unit (SDU) ye-University of Cape Town (UCT) imbambisani kezobuqharhaqharha beembalo kuPhrojekthi yokuThuthukiswa kweemBalo namaLimi kwaGreyidi R. I-SDU iyiyunithi ngaphakathi kwe-School of Education ye-UCT eqalene nokuthuthukiswa kobukhqwari babotitjhere beemBalo, iSayensi, ilwazi lokuTlola nokuFunda/iLimi namaKghono wePilo ukusukela kwaGreyidi R ukuya kwaGreyidi 12. I-SDU inikela abotitjhere iziqu zokufundisa neemfundo ze-UCT ezifitjhani eziphasisiweko, umsebenzi onzinze esikolweni, ukwenziwa kwemethiriyeli nerhubhululo ukusekela ukufundisa nokufunda kibo boke ubujamo beSewula Afrika.

### AMAGAMA WOKUTHOKOZA

Ukuthokoza okukhethekileko:

- Iinkhulu zePhiko labaNgophisi leKharikhyulamu, iPhiko labaNgophisi laboTitjhere bezeFundo nePhiko labaNgophisi leFundo eKhethekileko yomNyango wezeFundo weGauteng, ekutjhugululweni kwemethiriyali yethu.
- Abasebenzi nabotitjhere be-Western Cape Education Department (WCED) ngokufaka kwabo isandla epumelweni yokusetjenziswa kwe-Grade R Mathematics Programme (R-Maths) eTjhingalanga Kapa phakathi komnyaka we-2016 nowe-2019.
- Isiqhema sokutlola se-R-Maths: Abasebenzi nabathintanisi be-SDU.



Ihlelo lokuThuthukisa iimBalo zeGreyidi R lisuselwe ku-R-Maths, eyakhutjwa kokuthoma yi-Schools Development Unit, University of Cape Town ngo-2017. Ilungelo lokukhuphela le-R-Maths liphethwe yi-University of Cape Town.

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# Overview

## Purpose

This is the second of twelve Grade R Mathematics Improvement 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.

# Isirhunyezo

## Umnqopho

Lesi sifundobandulo sesibili kezilitjhumu nambili zeHlelo lokuThuthukisa iimBalo zeGreyidi R, eliyingcanye yomNyango wezeFundo weGauteng (Gauteng Department of Education (GDE)) iPhrojekthi yokuThuthukiswa kweemBalo namaLimi kwaGreyidi R.

Umnqopho wesifundobandulwesi kusiza abotitjhere ekusebenzisa iHlelo leemBalo ngematlasinabo. Isifundobandulwesi siqophene nesiKhala neBumbeko (Ijijomethri). Abahlanganyeli bazakuqinisa ilwazi nokuzwisisa kwabo ukufundisa nokufunda kilesi isiGaba sokuMumethweko, bazilungiselela ukufundisa imisebenzi yesiKhala neBumbeko (ijijomethri) ngematlasini wabo begodu bazindle ngemithethokambiso ehlahla ukufundisa.

## Imiphumela yokufunda

- ◆ Ukuzindla ngokusetjenziswa kweThemu 1 iimVeke 1-2
- ◆ Ukuhlola amaqhinga wokusekela ukufundisa iimbalo zeGreyidi R (isib. ukurarulula umraro, ukuphenya, ukuhlola, ukubuza, ukucabangisisa, ukulalela ngokumajadu, ukubukela)
- ◆ Ukuzibandakanya nokumumethweko kweHlelo leemBalo zeThemu 1 iimVeke 3-5 (IsiKhala neBumbeko (Ijijomethri))
- ◆ Ukusebenzisa imithethokambiso yeHlelo leemBalo ekuhleleni kwaqobe yiveke

## Okumumethweko kwesifundobandulo

- ◆ Ukuvula nokuzindla (I-iri 1)
- ◆ Isetjhini 1: Isirhunyezo sokumumethweko (I-iri 1)  
ITIYE
- ◆ Isetjhini 2: IsiKhala neBumbeko (Ijijomethri) (Ama-iri 2)  
ISIDLO SEMINI
- ◆ Isetjhini 3: Ukuhlelela ukufundisa (Ama-iri 2)

## Amalungiselelo

- ◆ PPT ukwamukelwa nemiphumela
- ◆ Kopa begodu usike imitletle yesithasiselo B bese uyifaka ngemvilobhini yinye yesiqhema ngasinye.
- ◆ Hlela umdlalo osiqabo olula ekundleni evulekileko.
- ◆ Lungisa iintafula zematheriyali ngaphambi kwesetjhini ngayinye.

## Materials

- ◆ Flipchart paper, kokis
- ◆ Props for obstacle course
- ◆ *Concept Guide*
- ◆ *Poster Book*
- ◆ *I don't know 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



## Imatheriyali

- ◆ Iphepha letjhadi eliphendlekako, amakhokhi
- ◆ Iinsetjenziswa zomdlalo osiqabo
- ◆ *UmHlahlandlela womQondo*
- ◆ *INcwadi yamaPhosta*
- ◆ *UmHlahlandlela wemiSebenzi: Ithemu 1*
- ◆ Amabhoksi, iimbholo namarempe wetafula ngayinye
- ◆ Amatjhidi amakhulu wamaphepha (wokugadangisa magega nomuntu)
- ◆ Iphepha elikhulu namakhrayoni wetafula ngayinye
- ◆ Amabhlogo wama-athribhuthi wetafula ngayinye

# 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.

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

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## Amanothi womkghonakalisi

- ◆ PPT: Vula isetjhini, yamukela abahlanganyeli bese ufunda imiphumela yesifundobandulo.
- ◆ Khumbuza abahlanganyeli ngo*Msebenzi obuyiselwa esikolweni* wekupheleni kweSifundobandulo 1. Bawa abahlanganyeli basebenze ngeenqhema ukuzindla ngomsebenzi lo bese benza **Umsebenzi 1**.
- ◆ Iinqhema zabelana nesiqhema esikhulu ngamaphuzu aqakathekileko.
- ◆ Rhelisa iimbonelo zekambiso ehle phezu kwephepha elikhulu bese ukhuthaza abahlanganyeli batlole phasi nofana bathathe isithombe sephepha elikhulu lelo njengerekhodi.
- ◆ Beka phasi isiquntu sentambo yobude obungangetlasi. Merega ipente yinye yentambo: 1 = iHlelo leemBalo lenze umehluko omkhulu ekufundiseni kwami. Merega enye ipente yentambo: 10 = iHlelo leemBalo alikenzi umehluko ekufundiseni kwami.
- ◆ Bawa abahlanganyeli abambalwa ngesikhathi sinye bajame phezu kwentambo ukutjengisa lapho bafaneleka khona esikalini nokuhlathulula bonyana kubayini bakhethe ukujama lapho.

Ku*Msebenzini obuyiselwa esikolweni* wesiFundobandulo 1 ubawiwe bonyana wenze imisebenzi embalwa. Singathanda bonyana uthathe imizuzu embalwa uzindle ngeragelophambili lakho bekube lapha.

Eenqhemeni zenu, cabangani ngokufundisa kwenu iimbalo eemvekeni ezimbili ezidlulileko nokobana uphumelele kangangani ukusebenzisa iThemu 1 iimVeke 1–2.



### Umsebenzi 1

Esiqhemeni sakho, khulumisanani ngokuphumelela neentjhijilo zokusebenzisa iThemu 1 iimVeke 1–2 zeHlelo leemBalo. Vumela umuntu ngamunye kobana abenedlhego lokwethula imicabango yakhe.

1. Hlathulula ngobufitjhani bonyana uyihlele njani itlasi yakho nokobana ukulungiselele njani ukufundisa eemvekeni ezimbilezi.

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2. Khulumisanani ngokobana khuyini okusebenze kuhle nalokho okuthole kunzima ukukusebenzisa. Ingabe kukhona oneemphakamiso ezingasiza?

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

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### Facilitator's notes

- ◆ Wrap up 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.

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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. Yabelana ngokobana uyisebenzise nini nanjani imithethokambiso ehlahlako yokufundisa ehlelweni lakho langamalanga lesikhathi sokunqophana neemBalo?
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### Amanothi womkghonakalisi

- ◆ Sisongela isetjhini le ngombiko obuyako wesiqhema ngasinye. Qala imisebenzi ethileko imvilobhu *UmHlahlandlela womQondo: Ithemu 1* ukusekela lokho abahlanganyeli ababelana ngakho.
- ◆ Khulumisanani ngevidiyo ngomnqopho wokobana abahlanganyeli bawulawule njani umsebenzi ohlahlwa ngutitjhere weVeke 2.



### Ividiyo 1

*UmHlahlandlela womQondo: Ithemu 1, iVeke 2, umsebenzi ohlahlwa ngutitjhere #3 (ikhasi 47)*

Bukelani ividiyo yomsebenzi ohlahlwa ngutitjhere obandakanya isiqhema esincani sabafundi.

Ucabanga bonyana khuyini ihloso yomsebenzi lo? Yelela khulu bonyana utitjhere ubakhuthaza njani ngemibuzo nokobana umtjheja njani umfundi ngamunye.

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Kusifundobandulo 1 sikhulumisene ngemithethokambiso ehlahlako ebunane yokufundisa iimbalo kwaGreyidi R. Umsebenzi 2 ufuna bonyana ukhambelanise umthethokambiso ngamunye webunane neentatimende ezimbili eziwutlhadlhula kangcono.

### Amanothi womkghonakalisi

- ◆ Nikela isiqhema ngasinye imvilophu eyodwa enemithethokambiso ehlahlako ebunane yokufundisa neentatimende ezikhambelanako.
- ◆ Hlathulula bonyana abahlanganyeli kufanele bakhambelanise imithethokambiso neentatimende ukuqedelela **Umsebenzi 2**.



### Umsebenzi 2

1. Isiqhema ngasinye sinikelwe imvilobhu enemitlele eemalwa. Thola imithethokambiso ehlahlako yokufundisa bese uyibeka ngereyi etafuleni yakho.
2. Khulumisanani ngesitatimende ngasinye bese nithatha isiqunto sokobana ngimuphi umthethokambiso esikhambelana nawo ngcono. Beka isitatimende ngaphasi komthethokambiso lo.

# 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:

## Amanothi womkghonakalisi

- ◆ Layela abahlanganyeli emakhasini 126–131 *womHlahlandlela womQondo*. Khumbuza abahlanganyeli bonyana ithebula le inikela iphahla lakho koke ukuhlelwa kweembalo begodu izakureferenswa ebandulweni loke.
- ◆ Bawa abahlanganyeli basebenze ngeenqhema ukuqedelela **Umsebenzi 3**. Bawa umuntu oyedwa esiqhemeni ngasinye kobana abelane ngemibono yakhe.

## Ithemu 1 Isirhunyezo sokumumethweko: Isikhala neBumbeko (Ijijomethri)

Okumumethweko kokufundisa nokufunda iimVeke 3–5 kunqophe khulu esiGabeni sokuMumethweko kwe-CAPS, isiKhala neBumbeko (Ijijomethri). Okumumethweko lokhu kubandakanya okunengi kunokufundisa abafundi ukufanisa amabumbeko wejijomethri. Ukuzwisisa kwabo isikhala nebumbeko kuyame khulu phezu kobana bayezwisisa begodu bangasebenzisa ilwazimagama lesikhundla ukutlhadlhula indawo lapho kunento khona (isib. phezu kwe-, ngaphakathi, eduze ne-, ngemuva, ngaphambi kwe-). Abafundi godu kufanele bakwazi ukubona izinto eenkhundleni nofana ekubonakaleni okuhlukileko (ngaphezulu, ngenzasi, iphendulelwe ngemahlangothini, iphendulwe yaqaliswa phasi).

## Amanothi womkghonakalisi

- ◆ Buza abahlanganyeli: Nangithi 'isikhala nebumbeko' ngiwaphi amagama afika emkhumbulweni?
- ◆ Rhelisa amagama ebabelana ngawo etjhadini lephepha eliphendlekako.

Funda isirhunyezo sesiKhala neBumbeko (Ijijomethri) emakhasini 126–131 *womHlahlandlela womQondo*. Unikela isirhunyezo sokumumethweko kweHlelo leemBalo ekufanele kufundiswe kuthemu ngayinye yeGreyidi R.

- ◆ Umtlolo ohlaza-samkayi ngilokho okumumethweko kweemBalo okubuya ku-CAPS yakwaGreyidi R.
- ◆ Inhlathululo zomtlolo nokumumethweko okutlolwe ngokunzima kufakelwe ukunabisa nokwakhela phezu kwe-CAPS.
- ◆ Inhloko zilandelanisiwe ukukhombisa iragelophambili ethuthukako ukusuka kesinye isihloko ukuya kesinye.



### Umsebenzi 3

Qala ku-3.1–3.4 wesirhunyezo sokumumethweko kwesiKhala neBumbeko (Ijijomethri) emakhasini 126–131 *womHlahlandlela womQondo*. Esiqhemeni sakho, yenzani okulandelako:

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

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

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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?

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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.

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1. Qalani isihloko ngasinye bese nikhulumisana ngokumumethweko neragelophambili letuthuko emathemini womane.

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2. Qalani umtlole otlolwe ngokunzima bese nikhulumisana ngalokho okungezelelwa liHlelo leemBalo kokumumethweko kwe-CAPS.

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Qala emtloleweni onzima. Okuqakathekileko okungezelelwa ku-CAPS ngilokhu:

- isikhundla somntwana mayelana nebhoduluko lakhe
- ukuhlola izinto ze- 3-D: ibumbeko elispara, elironde, elisikwere nofana elinguncamane
- uncamane (kuqalwe kikho ngokunganaki ku-Themu 1 kwafundiswa kuThemu 3)
- ukhumbula, ukufanisa nokutjho amagama wamabumbeko we-2-D
- ukumadanisa aboncamane neenkwere
- imida egobeneko nenqophileko.

3. Kubayini ucabanga bonyana isilinganiso sesiKhala neBumbeko (Ijijomethri) kungokwesibili okuphezulu khulu eenGabenzi zokuMumethweko kwaGreyidi R?

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Ukuzwisisa ngephasi labo ngokunabileko – yoke into esibhodilleko inebumbeko. Ukufunda ilimi elifaneleko kwenza abafundi bakwazi ukukhuluma ngamabumbeko bebawatlhadlhule. Amathemu amanengi asebenza ekuzwisiseni isikhundla senomboro elandelwaneni lokubala nofana ukulandelana kwezinto ephethenini. Amakghono wepilo amanengi ayame elemukweni namakghono wesikhala, isib. ukulandela iinkombatjhuba nofana ukufunda umebhe, ukupaka izinto ngesiphathini, njll.

4. Usifundise njani isiKhala neBumbeko (Ijijomethri) ngetlasinakho? Nikela iimbonelo nemisebenzi oyisebenzisileko ngesikhathi esidlulileko.

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## 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.

# Isetjhini 2: Isikhala neBumbeko (Ijiyomethri)

Ama-iri 2

## Imiqondo ephathelene nesikhala

(Imizuzu 30)

Abafundi bathoma ukufunda ngemiqondo ephathelene nesikhala enjengesikhundla, ikombatjhuba, ubujamo (ukuqaleka ngokuhlukileko) nombono lokha nabasebenzisa imizimba yabo ukuhlola ubudlelwana phakathi kwabo, abanye abantu nezinto.

### Amanothi womkghonakalisi

- ◆ Hlela umdlalo osiqabo ngokusebenzisa iintulo, amahulahuphu, amaplanka, iintafula nebhoksi.
- ◆ Isibonelo semilayelo engasetjenziswa:
  - Thatha amagadango amabili uye phambili.
  - Yeqela ngaphakathi kwehulahuphu.
  - Yeqela ngaphandle kwehulahuphu.
  - Jama ngenyawo linye ngakuhulahuphu.
  - Khasa uye phambili hlangana nemilenze yetafula.
  - Sikima bese uyaphenduka.
  - Thatha amagadango amathathu uye emuva.
  - Faka umlenze munye ngaphakathi kwehulahuphu.
  - Yeqa ngehla kwebhoksi.
  - Khamba hlangana neentulo.
  - Jama ngebhoksini.



### Umsebenzi 4

Umkghonakalisi uhlele umdlalo osiqabo olula. Dlhegana nomlingani ukuhlahlana emdlalweni osiqabo. Sebenzisani ilimi lesikhundla nelekomatjhuba ukunikela imilayelo ecacileko.

### Ngokusebenzisa *iNcwadi yamaPhosta* khulumani ngesikhundla nekombatjhuba

#### Amanothi womkghonakalisi

PPT: IPhosta 9: Buza imibuzo efuna iimpendulo ezisebenzisa amagama wesikhundla nekombatjhuba.

*I*Ncwadi yamaPhosta yeHlelo leemBalo inikela amathuba wokusebenzisa ubujamo bepilo yamambala ukuhlola imiqondo. KuPhosta 9 ye*Ncwadi yamaPhosta* uyakghona ukubona bonyana uMalusi uhlalaphi mayelana nabanye abantu neendawo lapho ahlala khona. Iphosta le ingasetjenziselwa ukuhlahlambisa imikhulumiswano emayelana nesikhundla sabantu nezinto ezimayelana nomunye nomunye nokukhuthaza abafundi basebenzise bebajayela ilimi elitlhadlhula isikhala, isikhundla nekombatjhuba. Abafundi bahlobanisa iimbalo nepilo yabo yangamalanga lokha nabakhulumisanako bararulula nemiraro.

### 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?

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**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?

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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.

## Amaothi womkghonakalisi

- ◆ Bawa abahlanganyeli benze **Umsebenzi 5** eenqhemeni zabo ezincani. Isiqhema ngasinye asibike ngomsebenzi.
- ◆ Khumbuza abahlanganyeli bonyana imibuzo yesikhundla neyekombatjhuba kunye neyelwazimagama ayethulwa ngesikhathi sokunqophana neemBalo kwaphela, kodwana iyafakwa godu ehlelweni langamalanga lelanga loke lesikolo. Bakhumbuze godu bonyana abotitjhere badlala indima eqakathekileko ekufundiseni ngokusebenzisa ilwazimagama elifaneleko.



### Umsebenzi 5

Esiqhemeni sakho, qalani iPhosta 9 bese nikhulumisana ngokulandelako:

1. Ngiwaphi amagama wesikhundla newekombatjhuba ongawethula ebafundini bese ubakhuthaza bonyana bawasebenzise?

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**Isikhundla:** ngaphezu kwe, ngemuva, ngaphambi kwe, ngaphakathi, phezu kwe, ngaphasi, eduze ne.

**Ikombatjhuba:** jika, nqopha, ukuya phambili, nga-, kude na, isincele, isidla, ku-, ukusuka, mazombe, malunga, mahlangana.

2. Ngiyiphi eminye imibuzo ongayibuza abafundi engabasiza ukufunda ngesikhundla, ikombatjhuba, ubujamo (ukuqaleka kwento) nobunjalo bokubonakala kwezinto?

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Iimbonelo:

- Ikuphi i ...?
- Khuyini okungaphambili/ngemuva/ngaphasi/eduze ne ...?
- UMalusi uzokufika njani ku/e ...?

## Amanothi womkghonakalisi

- ◆ Dosela amehlo kuMalusi nakavalelisa uGogo ngokumvayisela isandla. Buza abahlanganyeli:
    - Nibonani esithombeni?
    - Ucabanga bonyana uMalusi uyaphi?
    - Ucabanga bonyana uzokufika njani lapho?
  - ◆ Rhelisa amagama wekombatjhuba lokha nakabizwako, isib. jika, nqopha, ukuya phambili, ukuya ku, kude na, isincele, isidla, ku, ukusuka, mazombe, malunga, mahlangana.
  - ◆ Buza abahlanganyeli: UMalusi angababhacela abanye abafundi kuphi nendawo etatawini lemidlalo?
  - ◆ Rhelisa amagama wesikhundla, isib. ngaphezu kwe, ngemuva, ngaphakathi, phezu kwe, ngaphasi kwe, enzasi, eduze ne, qale phasi.
  - ◆ PPT: Hlathulula ngobufitjhani imiqondo yesikhala ekusikhundla, ikombatjhuba, ubujamo (ukuqaleka kwento) nobunjalo bokubonakala kwezinto. Khulumisanani ngokobana abafundi bayisebenzisa njani imizimba yabo kokuthoma ukuhlola imiqondo yesikhala.
- Buza abahlanganyeli bonyana mihlobo enjani yemisebenzi eshlelweni labo langamalanga engasiza abafundi ukuthuthukisa ukuzwisisa imiqondo yesikhala le.

Qala emakhasini 172–177 womHlahlandlela womQondo ukufunda ngokunabileko ngesikhala.

### 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.

**Amanothi womkghonakalisi**

- ◆ KwaGreyidi R abafundi bakhumbula, bafanise begodu batjho amagama wezinto ezibusontathu (3-D) namabumbeko busombili (2-D).
- ◆ Qala amakhasi 178–189 wom*Hlahlandlela womQondo*.
- ◆ Khulumisanani ngamathemu 'amabumbeko we-2-D' kunye 'nezinto ze-3-D'.
- ◆ Sebenzisa izinto zamambala zokutjengisa lokha nawuhlathulula umehluko phakathi kwamathemu la.

KwaGreyidi R abafundi baqalana nokukhumbula, ukufanisa nokutjho izinto ezibusontathu (3-D) namabumbeko abusombili (2-D).

- ◆ Ukuthi 3-D kutjho ukuthi into enobuso obuthathu: ubude, ububanzi nokuphakama.
- ◆ Ukuthi 2-D kutjho ukuthi ibumbeko elinobuso obubili: ubude nobubanzi.

**Ukukhumbula, ukufanisa nokumadanisa izinto ezibusontathu****Amanothi womkghonakalisi**

- ◆ Khulumisanani ngokobana abafundi bazibandakanya njani namatshwayo wezinto ze-3-D lokha nabahlola imatheriyeli yangamalanga enjengamabhoksi, amabhlege, irolo yangaphakathi kwephepha lendlwaneni, iimbholo, njalonjalo.
- ◆ Buza abahlanganyeli bonyana khuyini abayinikela abafundi ngematlasini wabo esiza abafundi bonyana bakhulumisane, bamadanise bebahlele izinto ngamananeko. Hlathulula bonyana umsebenzi olandelako uzakutjengisa bonyana ubasiza njani abafundi bakhumbule amatshwayo wezinto.
- ◆ Khombisa ividiyo bese ubawa abahlanganyeli baqedelele umsebenzi eenqhemeni zabo.

KwaGreyidi R abafundi bahlola amatshwayo wezinto zangamalanga. Bakha imakhiwo ngokusebenzisa imatheriyeli yemakhaya eyenziwe kabutjha njengamabhoksi, amabhlege, iinkhafthini, irolo yangaphakathi kwephepha lendlwaneni, iimbholo, njalonjalo. Bayaphenya bebatlhlahlule izinto zebumbeko lebhoksi nelebholo. Bayamadanisa bebahlele izinto ngamananeko bese bakhuluma ngokufana nangomehluko.

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

### 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



Qalani amakhasi 178–181 *womHlahlandlela womQondo* ukufunda ngokunabileko mayelana nezinto ze-3-D.

### Ukusuka ezintweni ze-3-D ukuya kumabumbeko we-2-D

#### Amanothi womkghonakalisi

- ◆ Bawa ivolontiya likujoyine. Bawa abahlanganyeli baqale emuntu lo ngaphambili, ngaphezulu nangehlangothini, bese batlhadlhula lokho abakubonako. Hlathulula bonyana singamqala umuntu lo ngebujameni obunengi obuhlukileko lokha nasitjhidako nofana nasimphendulako.
- ◆ Bawa ivolontiya lilale phasi ngomhlana phezu kwetjhidi lephepha elikhulu bese ugadangisela magega naye ngekhokhi. Lokha umuda ongeqadi lomuntu nasele udwetjiwe, umhlanganyeli akasikime.
- ◆ Buza abahlanganyeli ngalokho abakubona phezu kwephepha.
- ◆ Buza imibuzo enqophene nomuntu nebumbeko nofana ingeqadi lomuntu, isibonelo: Umdwebo lo ungawuqala ngeenkundla zokujama ezihlukileko?
- ◆ Beka inani lamabhoksi, iphepha elikhulu namakhrayoni etafuleni yesiqhema ngasinye. Hlathulula bonyana abahlanganyeli bazakuhlola amabhoksi **womsebenzi 6**.
- ◆ Ngemva komsebenzi lo khulumisanani ngalokho abahlanganyeli abakubonileko. Veza bonyana umsebenzi lo usiza abafundi ukwakha amabumbeko ngokugadangisela mazombe ingaphasi lezinto.

KwaGreyidi R, umnqopho uphezu kwamatshwayo wezinto namabumbeko. Abafundi bafunda ukufanisa nokutlhadlhula amatshwayo wezinto namabumbeko.



#### Umsebenzi 6

Hlola bese utlhadlhula amatshwayo webhoksi.

- ◆ Beka ibhoksi phezu kwesiquntu sephepha.
- ◆ Gadangisa mazombe ingaphasi lebhoksi.
- ◆ Tlhadlhula imida yomdwebo wakho.  
Nqopha, kune, kubili okude nakubili okufitjhani/koke kuyafana

- ◆ 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.
- ◆ Look for a shape that has three sides that are exactly the same.

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

- ◆ Yitjho ibumbeko olidwebileko.
- ◆ Wazi njani bonyana sikwere/nguncamane?
- ◆ Inamahlangothi amangaki?
- ◆ Inamakhona amangaki?
- ◆ Khuyini umehluko phakathi kwebhoksi nesikwere/uncamane?

## Ukukhumbula, ukuthadhlula nokumadanisa amabumbeko abusombili

### Amanothi womkghonakalisi

- ◆ Hlathulula bonyana abafundi nabo badinga amathuba wokuhlola amabumbeko wemihlobohlobo ukuthola bonyana ngiwaphi amatshwayo avamileko webumbeko elithileko. Layela abahlanganyeli **Umsebenzi 7** bese ubabawa bonyana basebenzise amabhlogo wabo we-athribhuthi ukulandela imilayelo.
- ◆ Veza bonyana ibhlogo le-athribhuthi liyinto. (Linobude, ububanzi nokuphakama) Nangabe uqalana nengaphandle lebhlogo le-athribhuthi ngokugijimisa imino yakho magega neemphetho, uzakulandela imida bese ugadangisa ubude nobubanzi bebumbeko, isib. isikwere, uncamane, uncantathu nofana indulungu (umphetho wendulungu ugobene).
- ◆ Qinisekisa bonyana abahlanganyeli bezwisisa umehluko phakathi kwe-3-D ne-2-D begodu bangakghona ukuhlathululela abafundi.
- ◆ Gandlela bonyana kwaGreyidi R abafundi abawafundi amathemu we-3-D no-2-D. Bakhuluma kwaphela 'ngezinto' 'namabumbeko', kodwana kufanele basebenzise ilwazimagama elifaneleko ukuthadhlula amatshwayo.
- ◆ Hlanganisa **Umsebenzi 7** nePhosta 8 bese uhlathulula amabumbeko ngobufitjhani.
- ◆ Hlathulula ithemu 'ubujamo'.

Abafundi kufanele babukele begodu bakhulumisane ngemihlobohlobo yamabumbeko we- 2-D ukuthola bonyana ngimaphi amatshwayo avamileko webumbeko elithileko, isib. nanyana aboncantathu boke bangekhe bafane patsi, boke banamahlangothi amathathu namakhona amathathu; boke aboncamane banamahlangothi amane ubujamo obunye nobunye.

Sebenzisa amabhlogo wama-athribhuthi etafuleni yakho ukuhlola amabumbeko we-2-D.



### Umsebenzi 7

Esiqhemeni sakho, khulumani ngebumbeko lengaphandle lebhlogo le-athribhuthi ngalinye.

- ◆ Qala ibumbeko elinamakhona amane.
- ◆ Sebenzisa umunwakho ukugadangisa uzombe ibumbeko. Libizwani ibumbeko lelo?
- ◆ Qala ibumbeko elinganamahlangothi anqophileko.
- ◆ Sebenzisa umunwakho ukugadangisa uzombe ibumbeko. Libizwani ibumbeko lelo?
- ◆ Cabanga ngombuzo ozakukhuthaza abafundi ukucabanga nokubeka iinzathu.

Qala amakhasi 182–189 *womHlahlandlela womQondo* ukufunda ngokunabileko ngamabumbeko we-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.

**Amanothi womkghonakalisi**

- ◆ PPT: Amabumbeko nezinto eziyisimethri nezingasiyo isimethri. Qala emakhasini 188–191 *womHlahlandlela womQondo*.
- ◆ Khumbuza abahlanganyeli ngom**thethokambiso wokujayeza** nokobana abafundi badinga amathuba amanengi wokuzijayeza amakghono amatjha nokuwasebenzisa ebujameni obuhlukileko.

Into nofana ibumbeko linesimethri lokha nalingahlukaniseka libe ziinquntu ezimbili ezilinganako emdeni obandula phakathi. Amaphetheni wesimethri angatholakala emizimbeni yethu, imvelo, ibhoduluko elakhiweko neenthombeni. Umuda wesimethri uhlukanisa ibumbeko libe ziinquntu ezimbili ezifanako. Umuda ungavundla nofana ujame rwe.

Qala amakhasi 188–191 *womHlahlandlela womQondo* ukufunda ngokunabileko mayelana nesimethri.

**Umthethokambiso wokujayeza:** Abafundi kufanele babe nesikhathi esaneleko sokuzijayeza amakghono nelwazi elitjha. Lokha abafundi nabanande bazijayeza kilokho esele bakufundile, baba nekghono nokuzithemba ngcono. Abafundi bathabela ukubuyelela nokuzijayeza. Utitjhere wakwaGreyidi R kufanele anikele amathuba wokuzijayeza abuyelelweko ukuthuthukisa amakghono amatjha.

# 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

# Isetjhini 3: Ukuhlelela ukufundisa

Ama-iri 2

## Amanothi womkghonakalisi

- ◆ Layela abahlanganyeli Isithasiselo A: Ithemu 1 Isirhunyezo sokuMumethweko kwaQobe yiVeke (Iimveke 3–5).
- ◆ Funda imisebenzi yetlasi yoke, ehlahlwa ngutitjhere neengaba zemisebenzi yeentetjhi zokusebenzela.
- ◆ Abahlanganyeli abasebenze ngeenqhema ukuqedelela **Umsebenzi 8**.

### Ithemu 1 Isirhunyezo sokuMumethweko (Iimveke 3–5) (Imizuzu 40)

Isithasiselo A: Ithemu 1 Isirhunyezo sokuMumethweko kwaQobe yiVeke (Iimveke 3–5) kuhlathulula umNqopho wesiGaba sokuMumethweko oqakathekileko weveke ngayinye, iinhloko ekufanele zifundiswe, ilwazi elitjha nomnqopho wokujayeza weveke ngayinye, nemisebenzi yetlasi loke ephakanyisiweko, umsebenzi weveke ohlahlwa ngutitjhere newesiqhema esizijameleko.

Funda imisebenzi yetlasi yoke, imisebenzi ehlahlwa ngutitjhere neengaba zemisebenzi yesitetjhi sokusebenzela bese uqedelela **Umsebenzi 8**.



### Umsebenzi 8

Qala Isithasiselo B: Ithemu 1 isirhunyezo sokuMumethweko kwangeVeke (iimveke 3–5). Phendula imibuzo.

Imibuzo	Iveke 3	Iveke 4	Iveke 5
Khuyini umNqopho wesiGaba sokuMumethweko weveke?	IsiKhala neBumbeko (Ijyomethri)	IsiKhala neBumbeko (Ijyomethri)	IsiKhala neBumbeko (Ijyomethri)
Ngiyiphi imiqondo eqakathekileko ezakufundwa bafundi?	Amatshwayo wezinto ze-3-D Imiqondo yesikhala: ngaphakathi nangaphandle Khulu no ncani	Amatshwayo wamabumbeko we-2-D (indulungu) Isimethri	Amatshwayo wamabumbeko we-2-D (isikwere) Ukuya emuva, ukuya phambili ngaphakathi, ngaphandle
Ngiliphi ilwazi elitjha elethuliweko?	Ukubala izinto 1–5 Amatshwayo wamabhoksi neembholo Izinto ezigedekako nofana ezitjhelelako Isikhundla: ngaphakathi nangaphandle Khulu no ncani Kulu khulu no ncani khulu	Indulungu Isimethri Inomboro 2	Ibumbeko le-2-D: isikwere Ikomatjhuba: ukuya phambili nokuya emuva Isikhundla: ngaphakathi nangaphandle
Ngimaphi amakghono ajayezwako?	Ukubala ngomlomo 1–5 Gandelela inomboro 1 Ukuhlela ngamananeke	Ukubala ngomlomo 1–5 Inomboro 1 Ukubala izinto 1–5	Indulungu Umqondo wenomboro 1 no-2 Ukubala ngomlomo 1–5 Ukubala izinto 1–5



**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.

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

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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.



## UmHlahlandlela wemiSebenzi: Ithemu 1: Iimveke 3, 4 ne-5

(Imizuzu 60)



### Ividiyo 3

*UmHlahlandlela womQondo: Ithemu1, Iveke 5, Ilanga 3 #4 (ikhasi 91)*

Bukelani ividiyo yabafundi nabakhuluma ngephosta.

1. Tlola imibuzo nemiraro yeembalo leyo utitjhere ayinikela abafundi ngesikhathi sokukhulumisana ngephosta.

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2. Tlola eminye imibuzo utitjhere ebekufanele ayibuze.

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Qala iimVeke 3, 4 ne-5 *umHlahlandlela wemiSebenzi: Ithemu 1*. Qedelela Umsebenzi 9 esiqhemeni sakho.



### Umsebenzi 9

1. Thola iimVeke 3, 4 ne-5 *kumHlahlandlela wemiSebenzi: Ithemu 1*. Phendula imibuzo.
  - ◆ Khuyini umNqopho wesiGaba sokuMumethweko weveke ngayinye?
  - ◆ Ngiziphi iinhloko nelwazi elitjha elifundiswako iveke ngayinye?
  - ◆ Kuhlanguana njani okumumethweko 'Ukujayeza' neveke edlulileko?
  - ◆ Khuyini okudingako ukuzilungiselela ngaphambi kokufundisa iveke ngayinye?
  - ◆ Funda imisebenzi yetlasi loke nemisebenzi yesiqhema esincani.
  - ◆ Khulumisanani esiqhemeni senu esincani bonyana uzakuplana bewuyihlele njani itlasi yakho emvekeni lezi ezintathu zokufundisa.
2. Qala Isithasiselo A: Ithemu 1 Isirhunyezo sokuMumethweko kwaQobe yiVeke (IimVeke 3–5). Khambelanisa imisebenzi yetlasi yoke nemisebenzi yesiqhema esincani eemVekeni 3,4 ne-5 *zomHlahlandlela wemiSebenzi: Ithemu 1* nesirhunyezo sokuMumethweko kweveke ngayinye.



Khumbula bonyana kwaGreyidi R ukuhlola akukahleleki begodu kuragela phambili. Kufanele sitjheje abafundi ilanga loke, ngaphakathi nangaphandle kwetlasi. Itshwayo lelihlo lisikhumbuza bonyana kufanele sitjheje abafundi lokha nabamajadu, begodu kufanele silalele kuhle lokha nabakhuluma nathi nalokha nabakhuluma nabangani babo.

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

Ihlelo leemBalo litlanywe ngokudlhegana kweenqhema ezincani phakathi kweveke notitjhere utlhogomela isiqhema esisodwa ngokukhethekileko ngelanga, uyabukela abe alalele lokha abafundi nabenza imisebenzi ethileko. Isikhathi lesi sinikela utitjhere ithuba lokutjheja umfundi ngamunye ngokuyelela okukhulu bese ubuthelela ilwazi mayelana neragelo phambili lakhe.

Qala ibhlogo elitshethla ekupheleni komsebenzi ohlahlwa ngutitjhere: **‘Tjheja bonyana abafundi bayakwazi uku’**. Utitjhere wenza inothi lengcondo ngomfundi ngamunye bese lokha abafundi nasele bakhambile utlola phasi lokho akutjhejileko ngencwadini yokutlola okutjhejiweko enesikhala samanothi womfundi ngamunye.

## Imisebenzi yokuvala

(Imizuzu 20)

### Amanothi womkghonakalisi

- ◆ **Iimfundo ezifundiweko:** Bawa abahlanganyeli bacabange ngalokho abakufundileko ngesikhathi sesifundobandulo nokobana baqedelele **Umsebenzi 10** ngamunye.
- ◆ **Umsebenzi obuyiselwa esikolweni:** Funda umsebenzi lo woke. Buza nangabe kukhona ongakuzwisisi kuhle nokufuna ihlathululo enabileko.
- ◆ **Ukuhlunga:** Phakisa amakhophi weForomo lokuHlunga lesiFundobandulo bese unikela abahlanganyeli bawazalise.
- ◆ **Isifundobandulo esilandelako:** Nikela amalanga wesifundobandulo esilandelako bese uvala isifundobandulo.



### Umsebenzi 10

**Iimfundo ezifundiweko:** Cabanga ngalokho okufundileko ngesikhathi sesifundobandulo bese uqedelela ithebula.

Izinto engizenzako ezisebenza kuhle	Imibono emitjha engingathanda ukuyizama



### 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.



### **Umsebenzi obuyiselwa esikolweni**

1. Funda amakhasi wom*Hlahlandlela womQondo* lawo ebekaqaliwe ngesikhathi sesifundobandulo.
2. Lungisa indawo yeembalo zesiKhala neBumbeko (Ijyomethri). Thatha isithombe sayo bese uza nayo kusifundobandulo esilandelako.
3. Sebenzisa *Umhlahlandlela wemiSebenzi: Ithemu 1* ukuplana nokusebenzisa iHlelo leemBalo iimVeke 3–5. Lokha nawuplanako, cabanga ngokobana imithethokambiso ehlahlako ikhambisana njani nokufundisa nokufunda ngetlasini yakho.
  - Uzakuthola njani lokho abafundi esele bakwazi nabakuzwisako? **(umthethokambiso wezinga.)**
  - Uzakwakhela njani phezu kwelwazi langaphambili abafundi ababuya nalo ekhaya? **(umthethokambiso wobujamo)**
  - Uzakuqinisekisa njani bonyana imisebenzi eplaniweko iyezwisiseka ebafundini? **(umthethokambiso wobujamo)**
  - Uzakwakha njani ukulalela nokukhuluma okumajadu emisebenzini yakho oyiplanileko? **(umthethokambiso wokukhulumisana)**
4. Tlola ukuzindla ngalokho okusebenze kuhle nalokho okungakasebenzi kuhle. Yiza namanothi wakho wokuzindla neembonelo eziimbalwa zomsebenzi loyo abafundi abawenzileko esifundobandulweni esilandelako.

### **Ukuhlunga**

Zalisa iForomo lokuHlunga.

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

### Term 1: Activity Plan

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

**ISITHASISELO A: ITHEMU 1 ISIRHUNYEZO SOKUMUMETHWEKO KWAQOBE YIVEKE (IIMVEKE 3-5)**

**Ithemu 1: Ihlelo lomsebenzi**

<b>Iveke 3</b>				
<b>ISIGABA SOKUMUMETHWEKO:</b> ISIKHALA NEBUMBeko (IJIYOMETHRI)				
<b>ISIHLOKO:</b> Ukukhumbula, fanisa nokutjho izinto ze-3-D, ukutlhadhlula, ukuhlela bese nokumadanisa izinto ze-3-D (amabhoksi neembholo); isikhundla, ubujamo nokuqaleka kwento: ngaphakathi nangaphandle				
<b>UKWETHULA ILWAZI ELITJHA:</b> Ukubala izinto 1-5, amatshwayo wamabhoksi neembholo, izinto ezigedekeko nofana ezitjhelelako, isikhundla: ngaphakathi nangaphandle, khulu/ncani, kulu khulu/ncani khulu				
<b>UKUJAYEZA:</b> Ukubala ngomlomo 1-5, ukugandelela umqondo wenomboro (1), ukuhlela ngamananeko				
<b>Imisebenzi yetlasi yoke</b>		<b>Umsebenzi ohlahlwa ngutitjhere</b>	<b>Imisebenzi yesitetjhini sokusebenzela</b>	
<b>Ilanga 1</b>	Hlola amatshwayo wamabhoksi neembholo.	Ukubala kunye kokunye okukhambelanako 1-5. Umdlalo wekhulu no ncani. Amatshwayo wamabhoksi neembholo. Madanisa amabhoksi neembholo. Hlela izinto ezitjhelelako nezigedekako ngamananeko.	<b>Umsebenzi 1</b>	Yakha izinto ngamabhoksi.
<b>Ilanga 2</b>	Madanisa ubukhulu bamabhoksi nebeembholo.		<b>Umsebenzi 2</b>	Iimbholo zehlama yokudlalisa ezikulu nezincani – ukuhlela ngamananeko.
<b>Ilanga 3</b>	Hlola bonyana ngiziphi ezingatjhelela, ngiziphi ezingagedeka; khulu/kulu khulu nokuncani/okuncani khulu.		<b>Umsebenzi 3</b>	Imigadangiso yepende yamabhoksi nofana yamabhlogo.
<b>Ilanga 4</b>	Khulumisanani ngokobana kubayini izinto zigedekeka begodu zitjhelela.		<b>Umsebenzi 4</b>	Yakha ubusithelo beenlwana zeplasini ngamabhlogo wokwakha.
<b>Ilanga 5</b>	Isikhundla: ngaphakathi nangaphandle			
<b>Iveke 4</b>				
<b>ISIGABA SOKUMUMETHWEKO:</b> ISIKHALA NEBUMBeko (IJIYOMETHRI)				
<b>ISIHLOKO:</b> Ukukhumbula, ukufanisa nokutjho amabumbeko we-2-D (indulungu); madanisa izinto ze-3-D namabumbeko we-2-D; isimethri				
<b>UKWETHULA ILWAZI ELITJHA:</b> Indulungu, isimethri, ukwethula inomboro 2				
<b>JAYEZA:</b> Ukubala ngomlomo 1-5, ukubala izinto 1-5, inomboro 1				
<b>Imisebenzi yetlasi yoke</b>		<b>Umsebenzi ohlahlwa ngutitjhere</b>	<b>Imisebenzi yesitetjhini sokusebenzela</b>	
<b>Ilanga 1</b>	Yethula u-2; indatjana yomhlobiso wenomboro.	Ukutjho ibumbeko nemibala yeembalisi ze <i>Khidi yeenSetjenziswa</i> . Umsebenzi wendulungu – amatshwayo. Amakarada weqatjhazi, weenthombe namatshwayo weenomboro 1 naku-2.	<b>Umsebenzi 1</b>	Umfuziselo wehlama yokudlalisa – yenza u-2.
<b>Ilanga 2</b>	Khuyini ibumbeko? Yethula indulungu.		<b>Umsebenzi 2</b>	Imigadangiso yendulungu – ipende neemphathi.
<b>Ilanga 3</b>	Thola iindulungu ngetlasini.		<b>Umsebenzi 3</b>	Umfuziselo ‘wepleyidi’ – sika unamathisele iinthombe zokudla.
<b>Ilanga 4</b>	Bala izitho zomzimba ezihlukileko; hlola isimethri emizimbeni yabo.		<b>Umsebenzi 4</b>	Amaphazili womzimba.
<b>Ilanga 5</b>	Indulungu (sebenzisa iphosta) nesimethri esithombeni.			

Week 5			
CONTENT AREA: SPACE AND SHAPE (GEOMETRY)			
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			
Whole class activities		Teacher-guided activity	Workstation activities
Day 1	Introduce the square (vocabulary).	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).	<b>Activity 1</b> Playdough with circle and square cookie cutter to make model. <b>Activity 2</b> Cut out squares and paste to make a picture. <b>Activity 3</b> Sorting square-shaped and circle-shaped objects. <b>Activity 4</b> Puzzles (minimum six pieces).
Day 2	Properties of the square; difference between circle and square.		
Day 3	Word problem ( <i>Poster Book</i> ) – square; find squares in the class.		
Day 4	Directionality (forwards and backwards).		
Day 5	Make patterns with squares, colours.		



<b>Iveke 5</b>			
<b>ISIGABA SOKUMUMETHWEKO:</b> ISIKHALA NEBUMBEKO (IJIYOMETHRI)			
<b>ISIHLOKO:</b> Ukukhumbula, ukufanisa nokutjho amabumbeko we-2-D (isikwere); madanisa izinto ze-3-D namabumbeko we-2-D; (ibhoksi nesikwere); <b>ikombatjhuba:</b> ukuya phambili/ukuya emuva; <b>isikhundla:</b> ngaphakathi/ngaphandle			
<b>UKWETHULA ILWAZI ELITJHA:</b> Isikwere, ikombatjhuba (ukuya phambili/ukuya emuva), isikhundla (ngaphakathi/ngaphandle)			
<b>UKUJAYEZA:</b> Indulungu, ukubala ngomlomo 1-5, ukubala izinto 1-5, umqondo wenomboro 1 naku-2			
<b>Imisebenzi yetlasi loke</b>		<b>Umsebenzi ohlahlwa ngutitjhere</b>	<b>Imisebenzi yesitetjhini sokusebenzela</b>
<b>Ilanga 1</b>	Ukwethula isikwere (ilwazimagama).	Ukubala ngomlomo/ukukhambelanisa amakarada wamaqatjhazi, wenomboro 1 naku-2. Thinta amabhlogo we- <i>Unifix</i> wokubala, yakha umbhotjhongo wamabhlogo we- <i>Unifix</i> . Amatshwayo webhoksi newesikwere. Umgodla wokuzwelela (amabhoksi neembholo). Imisebenzi yesikwere se-2-D – gadangisa mazombe nebhoksi. Isikhundla (ngaphakathi/ngaphandle).	<b>Umsebenzi 1</b> Ihlama yokudlalisa neensikhlama zendulungu nezesikwere ukwenza umfuziselo. <b>Umsebenzi 2</b> Sika iinkwere bese uyazinamathisela ukwenza isithombe. <b>Umsebenzi 3</b> Ukuhlela ngamananeke izinto zebumbeko lesikwere nezebumbeko lendulungu. <b>Umsebenzi 4</b> Amaphazili (iinquntu ezisithandathu ubuncani).
<b>Ilanga 2</b>	Amatshwayo wesikwere; umehluko phakathi kwendulungu nesikwere.		
<b>Ilanga 3</b>	Umraro wamagama ( <i>INcwadi yamaPhosta</i> ) – isikwere; thola iinkwere ngetlasini.		
<b>Ilanga 4</b>	Ikombatjhuba (ukuya phambili nokuya emuva).		
<b>Ilanga 5</b>	Yenza amaphetheni ngeenkwere, ngemibala.		

# Workshop 2 Evaluation Form

1. Did the workshop meet your expectations?

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

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

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

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

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## Isifundobandulo 2 Iforomo lokuHlunga

1. Ingabe isifundobandulo sibe ngilokho ebegade ukulindele?

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2. Khuyini okufundileko kilesisifundobandulo okukusize khulu?

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3. Ikhona into nofana khuyini ongakhange uyithande nofana obenobudisi ukuyizwisisa?

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4. Uzokusebenzisa njani lokho okufundileko ngetlasini yakho yakwa-Greyidi R?

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5. Kukhona imibono onayo emayelana nokwenza iimfundobandulo ezizako zibe ngcono?

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