



**GAUTENG PROVINCE**  
EDUCATION  
REPUBLIC OF SOUTH AFRICA

**GGT 2030**  
GROWING GAUTENG TOGETHER

Sepedi/English

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



**Thutofatlhošo ya 8 • Workshop 8**  
**Pukutšhomo ya Motšeakarolo • Participant's Workbook**

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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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 mašelang 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.
- Sehlopha sa bangwadi ba *R-Maths*: Bašomi le baeletši ba SDU.



Lenaneokaonafatšo la Thuto ya Dipalo Mphatong wa R le theilwe go tšwa lenaneong la *R-Maths*, leo le gatišitšwego la mathomo ka 2017 ke Schools Development Unit, University of Cape Town. Tokelo ya ngwalollo (copyright) *R-Maths* e laolwa ke University of Cape Town.

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# Overview

## Purpose

This is the eighth 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 continue assisting teachers to implement the Maths Programme in their classrooms. Participants will have the opportunity to reflect on their observations. They will explore how the guiding principles of teaching maths in Grade R should inform their planning, teaching and assessment. They will also consider learner progress, and individual developmental and learning needs. The workshop explores the content for Term 3 Weeks 4–6 and its classroom implementation.

References to the Grade R Mathematics Content Areas are taken from the *Curriculum and Assessment Policy Statement (CAPS): Grade R Mathematics (Final Draft)*, 2011, Department of Basic Education, South Africa.

## Learning outcomes

- ◆ To reflect on the implementation of Term 3 Weeks 1–3
- ◆ To explore play-based strategies to support teaching maths in Grade R
- ◆ To deepen the understanding of the Maths Programme's topics
- ◆ To reflect on challenges and find solutions to implementing the Maths Programme
- ◆ To map out the Maths Programme content to be taught in Term 3 Weeks 4–6

## Workshop content

- ◆ Opening and reflection (1 hour)
  - ◆ Session 1: Measurement (1 hour)
- TEA
- ◆ Session 2: Measurement (continued) (1 hour)
  - ◆ Session 3: Revisiting Grade R maths topics (1 hour)
- LUNCH
- ◆ Session 4: Planning for teaching (1½ hours)
  - ◆ Closing activities (30 minutes)

# Kakaretšo

## Morero

Ye ke thutofatlhošo ya boeswai 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. Batšeakarolo ba tlo hwetša monyetla wa go naganiša tše ba di bonego. Ba tla hlohlomiša ka fao ditheo tša go ruta dipalo Mphatong wa R di swanetšego go laola peakanyo ya bona, go ruta le tekolo. Ba tlo nagana le ka tšwelopele ya morutwana, le ditlhoko tša tllhabologo le go ithuta ga morutwana. Thutofatlhošo e hlohlomiša diteng tša Kotara ya 2 Dibeke tša 4–6 le phethagatšo ya yona ka phapošing.

Ditšhupetšo go Dikarolo tša Diteng tša Dipalo Mphatong wa R di tšwa ka go *Setatamente sa Pholisi sa Lenaneothuto le Kelo (SEPHOLEKE)*: Thuto ya Dipalo Mphatong wa R (*Kakanywa ya Mafelelo*), 2011, Kgoro ya Thuto ya Motheo, Afrika Borwa.

## Dineo tša thuto

- ◆ Go naganiša ka phethagatšo ya Kotara ya 3 Dibeke tša 1–3
- ◆ Go hlohlomiša mekgwa ya go akaretša papadi go thekga thuto ya dipalo ka Mphatong wa R
- ◆ Go oketša kwešišo ya dihlogotaba tša Lenaneo la Dipalo
- ◆ Go naganiša ka ditlhohlo le go hwetša ditharollo gore go phethagatšwe Lenaneo la Dipalo
- ◆ Go beakanya diteng tša Lenaneo la Dipalo tše di tlo rutwago ka Kotara ya 3 Dibeke tša 4–6

## Diteng tša thutofatlhošo

- ◆ Pulo le go naganiša (Iri e 1)
- ◆ Thuto ya 1: Kelo (Iri e 1)

### TEYE

- ◆ Thuto ya 2: Kelo (e tšwela pele) (Iri e 1)
- ◆ Thuto ya 3: Go etela dihlogotaba tša dipalo tša Mphato wa R gape (Iri e 1)

### MATENA

- ◆ Thuto ya 4: Go beakanyetša go ruta (Iri e 1½)
- ◆ Mešongwana ya go tswalela (Metsotso ye 30)

# Opening and reflection

1 hour

Here is the *Take back to school task* from Workshop 7.



## Take back to school task (Workshop 7)

1. Use the Term 3 Weekly Planning Template in Appendix A to plan and implement Term 3 Weeks 1–3 of the Maths Programme.
2. Document how you used the '**Check that learners are able to**' observation list (in the eye box) during each of the teacher-guided activities.
3. Write an evaluation of what worked well, what did not work so well and what you could do differently to improve teaching and learning.
4. Bring your evaluation to the next workshop.



## Activity 1

1. In your group, share your successes and challenges with implementing the Maths Programme in Term 3 Weeks 1–3.

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2. Discuss your use of the '**Check that learners are able to**' observation list (in the eye box) during each of the teacher-guided activities.

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3. Share strategies for improving teaching and learning for the challenges you identified.

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4. Write the main points of your discussion on flipchart paper. Report back on your discussion to the large group.



Fa ke Mošomo wo o tlo boelago le wona sekolong wa Thutofatlhošo ya 7.



## Mošomo wo o tlo boelago le wona sekolong (Thutofatlhošo ya 7)

1. Diriša Kotara 3 Thempoleiti ya Peakanyo ya Beke ka Beke ka go Mamatletšo ya A go beakanya le go phethagatša Kotara ya 3 Dibeke tša 1–3 ka go Lenaneo la Dipalo.
2. Ngwala ka fao o dirišitšego lenaneo la tlhokomelo (ka lepokising la leihlo) la **'Lekola gore barutwana ba kgona go'** ka nako ya mešongwana ya go hlahlwa ke morutiši ka moka ga yona.
3. Ngwala tekolo ya tše di šomilego gabotse, le tše di sa šomago gabotse le se o ka se dirago seo se fapanego go kaonafatša go ruta le go ithuta.
4. O tle le tekolo ya gago thutofatlhošong ya go latela.



## Mošongwana wa 1

1. Ka sehlopha, abelanang ka dikatlego le ditlhotlo tša ge le be le phethagatša Lenaneo la Dipalo la Kotara ya 3 Dibeke tša 1–3.

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2. Ahlaahlang ka fao le dirišago lenaneo la tlhokomelo la **'Lekola gore barutwana ba kgona go'** (ka lepokising la leihlo) ka nako ya mošomo wa go hlahlwa ke morutiši ka moka ga wona.

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3. Abelana ka maano a go kaonafatša go ruta le go ithuta mabapi le ditlhohlo tše o di hlathilego.

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4. Ngwala dintlhakgolo tša dipoledišano tša lena pampiring ya tšhate ya go phetla. Begela sehlopha se segolo ka ga poledišano ya lena.



### Video 1

Watch the video of a teacher working with a small group of learners during the teacher-guided activity in Term 3 Week 3.

Observe how the teacher:

- ◆ has prepared the small group activity
- ◆ manages the transitions between the eight tasks
- ◆ uses questions to guide the learners
- ◆ records her observations of what has been learnt using the '**Check that learners are able to**' observation list.

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## Bideo ya 1

Bogela bideo ya morutiši a šoma le sehlopha se sennyane sa barutwana ka nako ya mošomo wa go hlahlwa ke morutiši wa Kotara ya 3 Beke ya 3.

Lebelela ka fao morutiši:

- ◆ a beakantšego mešomo ya dihlopha tše nnyane
- ◆ a fetelago mošongwaneng o mongwe mo gare ga mešongwana ye seswai
- ◆ a botšišago dipotšišo go hlahlwa barutwana
- ◆ a rekhotago tšeo go ithutilwego tšona lenaneong la tlhokomelo la **'Lekola gore barutwana ba kgona go'**.

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# Session 1: Measurement

1 hour

In Terms 1 and 2, time and length were the focus of Measurement. This session will revisit these topics and expand the discussion of Measurement to include mass, and capacity and volume.

Measurement is about finding out ‘how much’ there is of something. In Grade R, the focus of measurement is on:

- ◆ time
- ◆ length
- ◆ mass
- ◆ capacity and volume.

In the next activity, you will explore each of these measurement concepts.

Learners in Grade R measure informally, by direct comparison and by using non-standard units of measurement. Learners develop their estimation skills during informal measurement activities. They estimate how long or how heavy they think something is and then use a non-standard measuring instrument to find out how accurate their estimation was.



## Activity 2

With your group, move to the measurement workstation you have been assigned to and answer the questions in your *Participant’s Workbook*. Rotate to the next workstation when you receive the signal.

### **Length**

Refer to page 210 of the *Concept Guide*. What vocabulary did you use during this activity?

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# Thuto ya 1: Kelo

Iri e 1

Ka Kotara ya 1 le 2, nako le botelele e be e le nepišo ya Kelo. Thuto ye e tlo etela dihlogotaba tše gape ya oketša poledišano ka ga Kelo gore e akaretše boima, le bogolo le bolumo.

Kelo e bolela ka go hwetša 'bogolo' bja selo. Ka Mphatong wa R, nepišo ya kelo e mo go:

- ♦ nako
- ♦ botelele
- ♦ boima
- ♦ bogolo le bolumu.

Ka mošongwaneng wa go latela, o tlo hlohlomiša le lengwe le le lengwe la mareo a ka godimo a kelo.

Barutwana ba Mphato wa R ba diriša kelo ya ka mehla, ka go bapetša thwii le ka go diriša metšo ya go se tlwaelege. Barutwana ba hlabolla mabokgoni a bona a go akanya ka nako ya mešongwana ya kelo ye e sego ya semolao. Ba akanya gore selo ke se setelele goba boima go kaakang gomme ba diriša sedirišwa sa metšo ya go se tlwaelege go lekola gore kakanyo ya bona e nepagatše go kaakang.



## Mošongwana wa 2

Ka sehlopha, eyang lefelong la go šomela la kelo leo le le abetšwego gomme le arabe dipotšišo tša ka gare ga *Pukutšhomo ya Motšeakarolo*. Eyang lefelong le lengwe la go šomela ge le laelwa.

### **Botelele**

Lebelela letlakala la 211 ka go *Pukutlhahlo ya Mareo*. O dirišitše tlotlontšu efe Mošongwaneng wo?

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Find the answer to each of the following and identify the non-standard unit of measurement you used.

	<b>Estimate (guess)</b>	<b>Non-standard unit of measurement</b>	<b>Length</b>
1. Who has the longest shoe?			
2. Who is the shortest?			
3. How long is your <i>Participant's Workbook</i> ?			
4. Who has the longest arm?			
5. How wide is your table?			
6. How many hand spans is the height of the door?			

### **Capacity and volume**

Refer to page 210 of the *Concept Guide*. What vocabulary did you use during this activity?

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Find the answer to each of the following and identify the non-standard unit of measurement you used.

	<b>Estimate (guess)</b>	<b>Non-standard unit of measurement</b>	<b>Capacity or volume</b>
1. Which two containers of water will fill the jug?			
2. Which bottle holds the most cups of water?			
3. How many cups of water do you think it will take to fill the vase?			
4. How many cups of water will it take to half-fill the vase?			
5. Which container on the table has the least amount of water in it?			
6. Which two containers have the same amount of water?			

Hwetša dikarabo tša tše di latelago gomme o hlathe metšo ya go se tlwaelege ya kelo ye o e dirišitšego.

	<b>Akanya</b>	<b>Motšo wa go se tlwaelege wa go ela</b>	<b>Botelele</b>
1. Ke mang wa go ba le seeta se setelele ka go fetiša?			
2. Ke mang yo mokopana ka go fetiša?			
3. Na <i>Pukutšhomo ya Motšeakarolo</i> ya gago e botelele bjo bokaakang?			
4. Ke mang yo a nago le letsogo le telele ka go fetiša?			
5. Tafola ya gago e bophara bjo bokaakang?			
6. Botelele bja lebati la gago bo dira ke diatla tše kae?			

### **Bogolo le bolumu**

Lebelela letlakala la 211 ka go *Pukutlhahlo ya Mareo*. O dirišitše tlotlontšu efe Mošongwaneng wo?

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Hwetša dikarabo tša tše di latelago gomme o hlathe metšo ya go se tlwaelege ya kelo ye o e dirišitšego.

	<b>Akanya</b>	<b>Motšo wa go se tlwaelege wa go ela</b>	<b>Bogolo goba bolumu</b>
1. Ke dikotlelo dife tše pedi tša meetse tše di tlo tlatšago nkgo?			
2. Ke lebotlelo lefe la go swara dikomiki tše dintši kudu tša meetse?			
3. O nagana gore sebjantsopa se tlo tlatšwa ke dikomiki tše kae tša meetse?			
4. O nagana gore ke dikomiki tše kae tša meetse tša go lekana seripagare sa sebjantsopa?			
5. Ke sekotlelo sefe tafoleng sa go ba le meetse a mannyane ka go fetiša?			
6. Ke dikotlelo dife tše pedi tša go ba le meetse a go lekana?			

**Mass**

Refer to page 210 of the *Concept Guide*. What vocabulary did you use during this activity?

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Find the answer to each of the following and identify the non-standard unit of measurement you used.

	<b>Estimate (guess)</b>	<b>Non-standard unit of measurement</b>	<b>Mass</b>
1. Whose handbag in your group is the heaviest?			
2. Which book in your group is the lightest?			
3. Who is the heaviest in your group? Who is the lightest?			
4. Which fruit is the heaviest?			
5. Which bottle weighs the most?			

**Time**

Refer to page 210 of the *Concept Guide*. What vocabulary did you use during this activity?

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Find the answer to each of the following and identify the non-standard unit of measurement you used.

	<b>Estimate (guess)</b>	<b>Non-standard unit of measurement</b>	<b>Time</b>
1. Who arrived the earliest this morning?			
2. Who arrived the latest?			
3. How long does it take to walk from your chair to the car?			
4. Who walked the fastest from their chair to the car?			
5. Would it take longer to eat lunch or drive to school?			



**Boima**

Lebelela letlakala la 211 ka go *Pukutlhahlo ya Mareo*. O dirišitše tlotlontšu efe Mošongwaneng wo?

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Hwetša dikarabo tša tše di latelago gomme o hlathe metšo ya go se tlwaelege ya kelo ye o e dirišitšego.

	<b>Akanya</b>	<b>Motšo wa go se tlwaelege wa go ela</b>	<b>Boima</b>
1. Ke mokotla ofe wa seatla sehlopheng wo o lego boima ka go fetiša?			
2. Ke puku efe sehlopheng ye e lego bofefe ka go fetiša?			
3. Ke mang yo a lego boima ka go fetiša sehlopheng sa gago? Ke mang yo a lego bofefe ka go fetiša?			
4. Ke seenywa sefe seo se lego boima ka go fetiša?			
5. Ke lebotlelo lefe leo le elago go feta mabotlelo ohle?			

**Nako**

Lebelela letlakala la 211 ka go *Pukutlhahlo ya Mareo*. O dirišitše tlotlontšu efe Mošongwaneng wo?

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Hwetša dikarabo tša tše di latelago gomme o hlathe metšo ya go se tlwaelege ya kelo ye o e dirišitšego.

	<b>Akanya</b>	<b>Motšo wa go se tlwaelege wa go ela</b>	<b>Nako</b>
1. Ke mang yo a fihlilego ka pela kudu mesong?			
2. Ke mang yo a fihlilego morago?			
3. O tšea nako ye kaakang go sepela go tloga setulong sa gago go ya sefatanageng?			
4. Ke mang yo a sepetšego ka lebelo go tloga setulong go ya sefatanageng?			
5. Go tšea nako ye teletenyana go ja matena goba go otlela go ya sekolong?			

# Session 2: Measurement (continued)

1 hour



## Activity 3

Consider the measurement activities that you have just experienced in Activity 2. How is your classroom set up to provide similar learning experiences?

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In Grade R, Measurement focuses on estimating, weighing, comparing and ordering objects according to how heavy or light they are.

Learners may find it difficult to understand that a small object can be heavier than a larger object. They need many opportunities to explore small heavy objects, small light objects, big heavy objects and big light objects.



## Video 2

Watch the video of comparing the mass of one object against another.

Discuss these questions.

- ◆ What do you see happening?
- ◆ What concepts are being taught and learnt?
- ◆ What skills are being practised?
- ◆ What are the learners doing and saying?
- ◆ How is the teacher mediating learning?

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## Thuto ya 2: Kelo (e tšwela pele)

Iri e 1



### Mošongwana wa 3

Eleletša mešongwana ya kelo ye o e dirilego ka Mošongwaneg wa 2. Phapoši ya gago e beakantšwe bjang gore o be le maitemogelo a go ithuta a go swana le a pele?

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Ka Mphatong wa R, Kelo e nepiša kakanyo, go ela, go bapetša le go latelanya dilo go ya ka boima le bofelo bja tšona.

Barutwana ba ka swara bothata go kwešiša gore selo se sennyane se ka ba boima go feta selo se segolwane. Ba hloka menyetla ye mentši ya go hlohlomiša dilo tša boima tše dinnyane, dilo tša bofelo tše dinnyane, dilo tša boima tše dikgolo le dilo tša bofelo tše dikgolo.



### Bideo ya 2

Bogelang bideo ya go bapetša boima bja selo se setee le bja se sengwe.

Bolelang ka dipotšišo tše.

- ◆ O bona go direga eng?
- ◆ Go rutwa le go ithuta mareo afe?
- ◆ Go ikatišwa mabokgoni afe?
- ◆ Barutwana ba reng le gona ba dira eng?
- ◆ Morutiši o laola go ithuta bjang?

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## Session 3: Revisiting Grade R maths topics

1 hour

As you know, the Maths Programme is designed to introduce new knowledge and build on this progressively across the weeks and terms. During this session, we will revisit Content Areas and topics that we have dealt with in previous workshops and we will discuss how these topics have been presented in the Maths Programme.



### Activity 4

The facilitator will give a topic to each group to discuss.

You are required to prepare a presentation on your understanding of the topic and how the Maths Programme deals with the development of the concepts and skills related to it. Read the relevant information associated with your topic in the *Concept Guide* (pages 138–219).

You will receive ONE of the following topics:

1. How are shapes introduced and consolidated in the Maths Programme? Refer to Term 3, Week 4, Days 1, 2 and 3 to support your discussion.
2. Position and direction are difficult concepts for young children to grasp. How does the Maths Programme present these topics in Terms 1, 2 and 3? Refer to Term 3, Week 4, Days 4 and 5 to support your discussion.
3. Term 3, Week 4, Day 5 deals with the topic of symmetry. Explain your understanding of this topic. Share your experiences of teaching symmetry and how your learners have demonstrated their understanding of it.
4. Dot cards are used throughout the Maths Programme. Discuss the value of using this resource and if/how it contributes to building number concept. Refer to Term 3, Weeks 4 and 6 to support your discussion.
5. Discuss the routine that is used to introduce a new number in the Maths Programme. Explain how this routine builds on and consolidates the development of number concept. Refer to Term 3, Week 6 to support your discussion.

# Thuto ya 3: Go etela dihlogotaba tša Mphato wa R gape

Iri e 1

Bjale ka ge o tseba, Lenaneo la Dipalo le akanyeditšwe go tsebiša tsebo le go tšwela pele go aga go se ge dibeke le dikotara di sepela. Ka nako ya thuto ye, re tlo etela Dikarolo tša Diteng le dihlogotaba tše re di dirilego dithutofatlhošong tša go feta gape gomme ra bolela ka fao dihlogotaba tše di begilwego ka gona ka Lenaneong la Dipalo.



## Mošongwana wa 4

Monolofatši o tlo fa sehlopha se sengwe le se sengwe hlogotaba gomme sa e ahlaahla.

O swanetše go beakanya pego go ya ka fao o kwešišago hlogotaba le ka fao Lenaneo la Dipalo le šomanago le tlhabollo ya mareo le mabokgoni a go amana le lona. Bala tshedimošo ya maleba ya go amana le hlogotaba ya gago ka go *Pukutlhahlo ya Mareo* (matlakala a 138–219).

O tlo hwetša e TEE ya dihlogotaba tše:

1. Na dibopego di tsebišwa le go kopanywa bjang ka Lenaneong la Dipalo? Lebelela Kotara ya 3, Beke ya 4, Matšatši a 1, 2 le 3 go thekga poledišano ya lena.
2. Maemo le tšhupetšo ke mareo ao bana ba bannyane ba swarago bothata go a kwešiša. Lenaneo la Dipalo le bega dihlogotaba tše bjang ka Kotareng ya 1, 2 le 3? Lebelela Kotara ya 3, Beke ya 4, Matšatši a 4 le 5 go thekga poledišano ya lena.
3. Kotara ya 3, Beke ya 4, Letšatši la 5 le bolela ka hlogotaba ya go lekanela. Hlaloša hlogotaba ye ka fao o e kwešišago ka gona. Abelana ka maitemogelo a gago a go ruta go lekanela le ka fao barutwana ba gago ba e kwešišitšego ka gona.
4. Dikarata tša marontho di dirišwa ka Lenaneong la Dipalo ka moka ga lona. Bolelang ka bohlokwa bja go diriša didirišwa tše le ge eba/ka fao di thušago go aga mareo a dinomoro. Lebelela Kotara ya 3, Dibeke tša 4 le 6 go thekga poledišano ya lena.
5. Ahlaahlang mokgwa wa go itlwaetša ditlwaelo wo o dirišwago go tsebiša nomoro ye mpsha ka Lenaneong la Dipalo. Hlaloša ka fao mokgwa wo wa go itlwaetša ditlwaelo o agago le go kopanya tlhabollo ya mareo a dipalo ka gona. Lebelela Kotara ya 3, Beke ya 6 go thekga poledišano ya lena.

6. Explain how word problems are used to teach addition, subtraction, grouping (multiplication) and equal sharing (division). Discuss the importance of the use of language and the structure of the word problem. Also included a motivation for the use of fingers and concrete apparatus during problem-solving activities. Refer to Week 6, Day 5 and the teacher-guided activities to provide examples.

7. How does the Maths Programme facilitate learning how to sequence/order the counting numbers (oral counting)? Consider each of the resources below to support your discussion:

- ◆ songs and rhymes
- ◆ number washing line
- ◆ jumping tracks
- ◆ number symbol cards.

How do these activities link to the concept of ordinal numbers? Refer to Term 3, Week 6 for examples to support your discussion.

8. A real understanding of counting is achieved when learners are able to count each object in a collection and know that the last count represents the total number of the collection. This is a difficult concept for learners to grasp. How does the Maths Programme provide opportunities for learners to develop the concept of cardinality?

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6. Hlaloša ka fao dipalo tša mantšu di dirišwago go ruta go tlhakantšha, go ntšha, go hlopha, (katišo) le go aba ka go lekana (karolo). Ahlaahlang bohlokwa bja go diriša leleme le popego ya palo ya mantšu. Akaretšang lebaka la tirišo ya menwana le dilo tša go swarwa ge go dirwa mešongwana ya go rarolla mathata. Gore o neelane ka mehlala lebelela Beke ya 6, Letsatši la 5 le mešongwana ya go hlahlwa ke morutiši.

7. Na Lenaneo la Dipalo le nolofatša go ithuta go latelanya/tatelano ya dinomoro tša go balwa (go balela godimo) bjang? Eleletša didirišwa tše ka fase go thekga poledišano ya lena:

- ◆ dikoša le direto
- ◆ mothalopalo
- ◆ methaladi ya go taboga
- ◆ dikarata tša maswao a dinomoro.

Mešongwana ye e tswalana bjang le lereo la palogohle? Go hwetša mehlala ya go thekga poledišano ya lena lebelela Kotara ya 3, Beke ya 6.

8. Barutwana ba tlo kwešiša go bala ge ba kgona go bala selo se sengwe le se sengwe seo se lego mokgobong ebile ba tseba gore nomoro ya mafelelo ke palomoka ya mokgobo. Go ba bothata barutwaneng go kwešiša lereo le. Lenaneo la Dipalo le nea barutwana menyetla ya go hlabolla lereo la palokgoboko bjang?

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## Session 4: Planning for teaching

1½ hours

It is important to plan and prepare thoroughly for each week. This will allow you to feel confident about what you are doing and help you to focus on teaching and working with the learners. As you have already experienced in Terms 1 and 2, the Maths Programme is carefully structured, and the maths content is presented in a progressive developmental sequence. It has been designed to ensure that all the Grade R Mathematics content and skills are covered and learners are well prepared for Grade 1. Teachers need to be cautious about selecting activities from different weeks and leaving other activities out.



### Activity 5

1. In your group, complete the planning templates for Term 3 Weeks 4–6 (Appendix A).
2. Your group will present an overview of your planning discussion to the other groups. Note the main points of your discussion on flipchart paper. Include answers to the following questions:
  - ◆ How could you work with a colleague to prepare for each week?
  - ◆ How is the week structured?
  - ◆ How do the topics build on previous lessons?
  - ◆ Do the whole class activities successfully open the way for discussion and exploration of new knowledge?
  - ◆ How does the teacher-guided activity provide opportunities for the teacher to assess and support the learners?
  - ◆ Do the independent small group activities allow for adequate practice of new knowledge and skills?



## Thuto ya 4: Go beakanyetša go ruta

Iri e 1½

Go bohlokwa go beakanya le go itokiša gabotse beke ye nngwe le ye nngwe. Se se tlo dira gore o be le boitshepo ka se o se dirago gape sa go thuša gore o nepiše go ruta le go šoma le barutwana. Bjale ka ge o itemogetše ka go Kotara ya 1 le 2, Lenaneo la Dipalo le hlophilwe gabotse, gomme diteng tša dipalo di hlagišwa ka tatelano ya tlabologo ye e tšwelago pele. Le akantšwe go kgonthiša gore diteng le mabokgoni ka moka a Thuto ya Dipalo tša Mphato wa R a akareditšwe gomme barutwana ba tloga ba loketše Mphato wa 1. Barutiši ba swanetše go hlokomela ge ba kgetha mešongwana ya dibeke tša go fapana ba tlogela mešongwana ye mengwe.



### Mošongwana wa 5

1. Ka sehlopha, dirang dithempoleiti tša peakanyo tša Kotara ya 3 Dibeke tša 4–6 (Mamatletšo ya A).
2. Sehlopha sa gago se tlo begela dihlopha tše dingwe ka ga kakaretšo ya poledišano ya lena ya peakanyo. Ngwala dintlhakgolo tša poledišano ya lena pampiring ya tšhate ya go phetla. Akaretša dikarabo tša dipotšišo tše di latelago:
  - ◆ O ka šoma bjang le modirišanimmogo go beakanyetša beke ye nngwe le ye nngwe?
  - ◆ Beke e beakantšwe bjang?
  - ◆ Dihlogotaba di agwa godimo ga dithuto tša go feta bjang?
  - ◆ Go dira mešongwana ya barutwana ka moka ka katlego go hlola poledišano le tlhohlomišo ya tsebo ye mpsha?
  - ◆ Na mošomo wa go hlahlwa ke morutiši o nea morutiši menyetla ya go lekola le go thekga morutwana bjang?
  - ◆ Na mešomo ya dihlopha tše nnyane ya go se hlahlwe e dumelela katišo ye e lekanego ya tsebo ye mpsha le mabokgoni?

# Closing activities

30 minutes



## Activity 6

**Workshop reflection:** Take a few minutes to reflect on the day. Page through your *Participant's Workbook* to remind yourself of what was covered. Write down your thoughts.

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Share your reflections with the large group.



### Take back to school task

1. Use *Activity Guide: Term 3* to plan and implement Term 3 Weeks 4–6 of the Maths Programme.
2. Write comments in the book that you use to keep track of each learner's progress (learner observation book). Use the '**Check that learners are able to**' observation list (eye box) during each of the teacher-guided activities to guide your observations and comments.
3. Make notes of what worked well, what did not work well and how you resolved any challenges during your implementation of Term 3 Weeks 4–6.
4. Bring your learner observation book and the notes you made when reflecting on each day's teaching to the next workshop.

### Evaluation

Complete the Evaluation Form.



## Mošongwana wa 6

**Go naganiša ka thutofatlhošo:** Tšea metsotso ye mmalwa o naganiša ka letšatši. O phetle *Pukutšhomo ya Motšeakarolo* go ikgotša tše di akareditšwego. Ngwala dipotšišo goba ditshwayatshwayo tše o tlo di abelanago le sehlopha ka moka.

Monolofatši o tlo laela batšeakarolo gore ba ye matlakaleng a pampiri ao a lego mabotong. Letlakala le lengwe le le lengwe le tlo go laetša gore o arabe bjang.

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Abelana ka se o se naganago le sehlopha se segolo.



### Mošomo wo o tlo boelago le wona sekolong

1. Diriša *Pukutlhahlo ya Mešongwana: Kotara ya 3* go beakanya le go phethagatša Kotara ya 3 Dibeke tša 4–6 tša Lenaneo la Dipalo.
2. Ngwala ditswhayatshwayo ka pukung ye o e dirišago go rekhota tšwelopele ya morutwana yo mongwe le yo mongwe (puku ya tlhokomelo ya morutwana). Diriša lenaneo la tlhokomelo (lepokisi la leihlo) la **'Lekola gore barutwana ba kgona go'** ka nako ya mešongwana ka moka ya go hlahlwa ke morutiši go hlahlwa tlhokomelo ya gago le ditswhayatshwayo.
3. Ngwala dinoutse ka ga tšeo di šomilego gabotse, tše di sa šomago gabotse le ka fao o šomanego le ditlhohlo ge o phethagatša Kotara ya 3 Dibeke tša 4–6.
4. O tle le puku ya tlhokomelo ya barutwana le dinoutse tše o di ngwadilego ge o naganiša ka ga go ruta ga letšatši le lengwe le le lengwe thutofatlhošong ya go latela.

### Tekolo

Tlatša Foromo ya Tekolo.

**APPENDIX A: TERM 3 WEEKLY PLANNING TEMPLATE**

**Term 3: Activity Plan: Week \_\_\_\_**

<b>CONTENT AREA:</b>				
<b>TOPIC:</b>				
<b>INTRODUCE NEW KNOWLEDGE:</b>				
<b>PRACTISE:</b>				
<b>Whole class activities</b>		<b>Teacher-guided activity</b>	<b>Workstation activities (independent small group activities)</b>	
<b>Day 1</b>			<b>Activity 1</b>	
<b>Day 2</b>			<b>Activity 2</b>	
<b>Day 3</b>			<b>Activity 3</b>	
<b>Day 4</b>			<b>Activity 4</b>	
<b>Day 5</b>				

**MAMATLETŠO YA A: KOTARA YA 3 THEMPOLEITI YA PEAKANYO YA BEKE KA BEKE**

**Kotara ya 3: Peakanyo ya Mošongwana: Beke ya \_\_\_\_**

<b>KAROLO YA DITENG:</b>				
<b>HLOGOTABA:</b>				
<b>TSEBIŠA TSEBO YE MPSHA:</b>				
<b>GO IKATIŠA:</b>				
<b>Mešongwana ya barutwana ka moka</b>		<b>Mošomo wa go hlhlwa ke morutiši</b>	<b>Mešongwana ya mafelong a go šomela (mešongwana ya sehlopha se sennyane ya go se hlhlwe)</b>	
<b>Letšatši la 1</b>			<b>Mošongwana wa 1</b>	
<b>Letšatši la 2</b>			<b>Mošongwana wa 2</b>	
<b>Letšatši la 3</b>			<b>Mošongwana wa 3</b>	
<b>Letšatši la 4</b>			<b>Mošongwana wa 4</b>	
<b>Letšatši la 5</b>				

**Term 3: Activity Plan: Week \_\_\_\_**

<b>CONTENT AREA:</b>
<b>TOPIC:</b>

**INTRODUCE NEW KNOWLEDGE:**

**PRACTISE:**

<b>Whole class activities</b>		<b>Teacher-guided activity</b>	<b>Workstation activities (independent small group activities)</b>	
<b>Day 1</b>			<b>Activity 1</b>	
<b>Day 2</b>			<b>Activity 2</b>	
<b>Day 3</b>			<b>Activity 3</b>	
<b>Day 4</b>			<b>Activity 4</b>	
<b>Day 5</b>				

**Kotara ya 3: Peakanyo ya Mošongwana: Beke ya \_\_\_\_**

<b>KAROLO YA DITENG:</b>				
<b>HLOGOTABA:</b>				
<b>TSEBIŠA TSEBO YE MPSHA:</b>				
<b>GO IKATIŠA:</b>				
<b>Mešongwana ya barutwana ka moka</b>		<b>Mošomo wa go hlhlwa ke morutiši</b>	<b>Mešongwana ya mafelong a go šomela (mešongwana ya sehlopha se sennyane ya go se hlhlwe)</b>	
<b>Letšatši la 1</b>			<b>Mošongwana wa 1</b>	
<b>Letšatši la 2</b>			<b>Mošongwana wa 2</b>	
<b>Letšatši la 3</b>			<b>Mošongwana wa 3</b>	
<b>Letšatši la 4</b>			<b>Mošongwana wa 4</b>	
<b>Letšatši la 5</b>				

**Term 3: Activity Plan: Week \_\_\_\_**

<b>CONTENT AREA:</b>
<b>TOPIC:</b>

**INTRODUCE NEW KNOWLEDGE:**

**PRACTISE:**

<b>Whole class activities</b>		<b>Teacher-guided activity</b>	<b>Workstation activities (independent small group activities)</b>	
<b>Day 1</b>			<b>Activity 1</b>	
<b>Day 2</b>			<b>Activity 2</b>	
<b>Day 3</b>			<b>Activity 3</b>	
<b>Day 4</b>			<b>Activity 4</b>	
<b>Day 5</b>				



**Kotara ya 3: Peakanyo ya Mošongwana: Beke ya \_\_\_\_**

<b>KAROLO YA DITENG:</b>				
<b>HLOGOTABA:</b>				
<b>TSEBIŠA TSEBO YE MPSHA:</b>				
<b>GO IKATIŠA:</b>				
<b>Mešongwana ya barutwana ka moka</b>		<b>Mošomo wa go hlhlwa ke morutiši</b>	<b>Mešongwana ya mafelong a go šomela (mešongwana ya sehlopha se sennyane ya go se hlhlwe)</b>	
<b>Letšatši la 1</b>			<b>Mošongwana wa 1</b>	
<b>Letšatši la 2</b>			<b>Mošongwana wa 2</b>	
<b>Letšatši la 3</b>			<b>Mošongwana wa 3</b>	
<b>Letšatši la 4</b>			<b>Mošongwana wa 4</b>	
<b>Letšatši la 5</b>				

# Workshop 8 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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# Foromo ya Tekolo ya Thutofatlhošo ya 8

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

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

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

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

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

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