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GROWING GAUTENG TOGETHER

Tshivenda/English

Mbekanyamushumo ya u Khwinifhadza Mbalo dza Gireidi ya T Grade R Mathematics Improvement Programme



**Wekishopo ya 8 • Workshop 8
Nyendedzi ya Mutshimbidzi • Facilitator's Guide**

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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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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)

Manweledzo

Ndivho

Iyi ndi wekishopo ya vhumalo kha dza fumimbili dza Mbekanyamushumo ya u Khwinifhadza Mbalo dza Gireidi ya Ṭ ine ya vhumba tshipiḁa tsha Muhasho wa Pfunzo wa Gauteng (GDE) Mbalo dza Gireidi ya Ṭ na Thandela ya u Khwinisa Dzinyambo.

Ndivho ya wekishopo iyi ndi u thusa vhagudisi u thoma Mbekanyamushumo ya Mbalo ngomu kiḁasirumuni dzavho. Vhashelamulenzhe vha ḁo vha na tshikhala tsha u amba nga zwe vha lavhelesa. Vha ḁo tandula uri milayo ya nyendedzi ya u funza mbalo kha Gireidi ya Ṭ i fanela u thusa hani u pulana havho, u funza na u linga. Vha ḁo dovha hafhu vha sedza mvelaphanḁa ya vhagudi, na ḁoḁea dza u guda na mveledziso dza mugudi nga eḁhe. Wekishopo i tandula magudiswa a Kotara ya 3 Vhege ya 4–6 na u thomiwa hao kiḁasini.

U referentsiwa kha Sia ḁa Magudiswa ḁa Mbalo dza Gireidi ya Ṭ zwo dzhiwa kha *Tshitatamennde tsha Pholisi tsha Kharikhulamu na u Linga (TSHIPHOKHALI): Mbalo dza Gireidi ya Ṭ (Mvetamveto ya u Fhedzisela)*, 2011, Muhasho wa Pfunzo ya Mutheo, Afrika Tshipembe.

Mvelelo dza u guda

- ♦ U humbula nga u thomiwa ha Kotara ya 3 Vhege ya 1–3
- ♦ U tandula maano o ḁisendekaho kha u tamba u itela u tikedza u funza mbalo kha Gireidi ya Ṭ
- ♦ U khwaḁhisedza u pfesesa thero dza Mbekanyamushumo ya Mbalo
- ♦ U amba nga dzikhaedu na u wana thandululo dza u thoma Mbekanyamushumo ya Mbalo
- ♦ U pulana magudiswa a Mbekanyamushumo ya Mbalo ane a ḁo funzwa kha Kotara ya 3 Vhege ya 4–6

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- ♦ Mvulatswinga na mihumbulo (Awara 1)
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 - ♦ Dzulo ḁa 3: U lavhelesa hafhu thero dza mbalo dza Gireidi ya Ṭ (Awara 1)
- TSHISWIṬULO
- ♦ Dzulo ḁa 4: U pulanela u funza (Awara 1½)
 - ♦ Nyito dza u vala (Minetse ya 30)

Preparation

- ◆ PPT welcome and outcomes
- ◆ Familiarise yourself with all the PowerPoints and videos
- ◆ Read:
 - Concept Guide*, pages 16–25, 28–31, 58–69 and 114–219
 - Activity Guide: Term 3*, pages 18 and 70–119
- ◆ Bring the post box
- ◆ Remind participants to bring their:
 - Concept Guide*
 - Activity Guide: Term 2*
 - Activity Guide: Term 3*
 - Poster Book*

Materials

- ◆ Flipchart paper, kokis
- ◆ Prestik
- ◆ *A Resource Kit* for each group
- ◆ For Activity 2: string, pencils, sticks, jug, vase, cups, bottles and containers of different sizes (including two containers with different shapes, but the same capacity), bucket of water, balance scale, two or more kinds of fruit, books of different masses, one plastic bottle and one glass bottle of different masses, candles, egg timers, stopwatch (on a cellphone)

Ndugiselo

- ◆ PPT u tangedza na mvelelo
- ◆ U divha dziPowerPoint na dzividiyo dzothe
- ◆ Kha vha vhale:
Nyendedzi ya Divhaipfi, masiatari a 16–25, 28–31, 58–69 na 114–219
Nyendedzi ya Nyito: Kotara ya 3, masiatari a 19 na 70–119
- ◆ Kha vha de na bogisi la poswo
- ◆ Kha vha humbudze vhashelamulenzhe u da na:
Nyendedzi ya Divhaipfi
Nyendedzi ya Nyito: Kotara ya 2
Nyendedzi ya Nyito: Kotara ya 3
Bugu ya Dziphositara zwavho

Matheriala

- ◆ Bammbiri la filipitshati, dzikhokhi
- ◆ Tshinambatedzi
- ◆ *Khithi ya Zwishumiswa* ya tshigwada tshinwe na tshinwe
- ◆ U itela Nyito ya 2: mudali, penisela, zwitanda, bigiri, dzivasi, khaphu, mabodelo na zwifaredzi zwa saizi dzo fhambanaho (hu tshi katelwa na zwifaredzi zwivhili zwa zwivhumbeo zwo fhambanaho, fhedzi zwa vhungomu hu edanaho), bakete la maḍi, tshikalo tsha ndinganyiso, tshakha dza mitshelo mivhili kana minzhi, bugu dza zwileme zwi sa fani, boḍelo lithihi la pulasitiki na boḍelo lithihi la ngilasi a zwileme zwi sa fani, makhandela, tshikala tshifhinga tsha makumba, watshi ya u kala tshifhinga (kha luṅingothendeleki)

Opening and reflection

1 hour

Facilitator's notes

- ◆ PPT: Learning outcomes of the workshop.
- ◆ Discuss the post box comments and feedback from the previous workshop. Remind participants to 'post' any new comments and feedback during the workshop.
- ◆ Remind participants of the *Take back to school task* from the end of Workshop 7.
- ◆ Refer participants to **Activity 1** and read through the instructions. Participants complete the activity in their groups. Groups then share key points with the large group.
- ◆ After the small group discussions, take comments from each group. Summarise the successes and challenges and discuss the implications for classroom implementation.

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.

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.

Notsi dza mutshimbidzi

- ◆ PPT: Mvelelo dza u guda dza wekishopo.
- ◆ Kha vha haseledze mahumbulwa na mbigela murahu zwa bogisini la poswo u bva kha wekishopo yo fhiraho. Kha vha humbudze vhashelamulenzhe u 'posa' mahumbulwa maswa mañwe na mañwe na mbigela murahu nga tshifhinga tsha wekishopo.
- ◆ Kha vha humbudze vhashelamulenzhe nga *Mushumo wa u tuwa nawo tshikoloni* u bva mafheleloni a Wekishopo ya 7.
- ◆ Kha vha rumele vhashelamulenzhe kha **Nyito ya 1** vha vhale ndaela. Vhashelamulenzhe vha fhedzisa nyito zwigwadani zwavho. Zwigwada zwi kovhana mbuno dza ndeme na tshigwada tshihulwane.
- ◆ Nga murahu ha khaseledzo dza zwigwada zwiṭuku, kha vha dzhie mahumbulwa u bva tshigwadani tshiñwe na tshiñwe. Kha vha ite manweledzo a zwe zwa shuma zwavhuḽi na dzikhaedu vha haseledze uri zwi kwama hani u thoma ngomu kiḽasini.

Mushumo wa u tuwa nawo tshikoloni u bva kha Wekishopo ya 7 ngoyu.



Mushumo wa u tuwa nawo tshikoloni (Wekishopo ya 7)

1. Kha vha shumise Themphuleithi ya u pulana ya Vhege nga Vhege ya Kotara ya 3 i re kha Thumetshedzo ya A u pulana na u thoma Kotara ya 3 Vhege ya 1–3 dza Mbekanyamushumo ya Mbalo.
2. Kha vha ñwale uri vho shumisa hani '**Kha vha tole uri vhagudi vha a kona u**' kha mutevhe wa u lavhelesa (kha iṭo tshibogisini) nga tshifhinga tsha nyito dzo rangwaho phanda nga mugudisi.
3. Kha vha ñwale zwe vha tola zwe zwa shuma zwavhuḽi, zwe zwa si shume zwavhuḽi na zwine vha nga ita nga inwe ndila yo fhambanaho u itela u khwinisa u funza na u guda.
4. Kha vha de na zwe vha ela zwavho kha wekishopo i tevhelaho.



Nyito ya 1

1. Tshigwadani tshavho, kha vha kovhane zwe zwa shuma zwavhuḽi na dzikhaedu musi vha tshi khou thoma Mbekanyamushumo ya Mbalo kha Kotara ya 3 Vhege ya 1–3.

2. Kha vha haseledze tshumiso yavho ya mutevhe wa u lavhelesa wa '**Kha vha tole uri vhagudi vha a kona u**' (kha iṭo tshibogisini) nga tshifhinga tsha nyito dzo rangwaho phanda nga mugudisi dziñwe na dziñwe.

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

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

Video 1

Activity Guide: Term 3, Week 3, Teacher-guided activity (pages 64–67)

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.

Facilitator’s notes

Show the video and lead a discussion based on the four observation prompts. If participants do not mention the following points, add them to the discussion.

- ◆ It is essential to read the *Getting ready* and *What you need* sections of the *Activity Guide*.
- ◆ It is important to be prepared **before** the week/day begins and to have all the resources available during an activity.
- ◆ Teachers must have read the activities and be able to engage with the learners without reading the *Activity Guide* line by line.
- ◆ Manage the time allocated to an activity. Do not spend too long on any task so that others have to be omitted. (Remember learners in Grade R should only spend 10–15 minutes on an activity.)
- ◆ Use closed questions to determine knowledge/facts and use open-ended questions to probe learner’s reasoning and to find out how they solve problems.
- ◆ Listening to and observing **each** learner provides insight into their progress. It helps you to identify their abilities and the gaps in their skill and/or understanding.

3. Kha vha vha fhe maano a u khwinisa u funza na u guda kha dzikhaedu dze vha topola.

4. Kha vha n̄wale mbuno khulwane dza khaseledzo yavho kha bambiri la filipitshati. Kha vha vhegele murahu khaseledzo yavho kha tshigwada tshihulwane.



Vidiyo ya 1

Nyendedzi ya Nyito: Kotara ya 3, Vhege ya 3, Nyito yo rangwaho phanda nga mugudisi (masiatari a 64–67)

Kha vha talele vidiyo ya mugudisi a tshi khou shuma na tshigwada tshitungu tsha vhagudi nga tshifhinga tsha nyito yo rangwaho phanda nga mugudisi kha Kotara ya 3 Vhege ya 3.

Kha vha lavhelese uri mugudisi u:

- ◆ dzudzanya hani nyito ya tshigwada tshitungu
- ◆ langula hani muratho vhukati ha mishumo ya malo
- ◆ shumisa hani mbudziso u endedza vhagudi
- ◆ rekhoda hani zwe a lavhelesa zwa zwe zwa gudwa a tshi shumisa mutevhe wa u lavhelesa wa **'Kha vha tole uri vhagudi vha a kona u'**.

Notsi dza mutshimbidzi

Kha vha sumbedze vidiyo vha range phanda khaseledzo yo disenekaho nga thuthuwedzo n̄a dza u lavhelesa. Arali vhashelamulenzhe vha sa bula mbuno dzi tevhelaho, kha vha dzi engedze kha khaseledzo.

- ◆ Ndi zwa ndeme u vhalala zwiteñwa zwa *U dilugisela* na *Zwine vha do toda* zwa *Nyendedzi ya Nyito*.
- ◆ Ndi zwa ndeme u vha vho dilugisela **phanda** ha musi vhege/duvha li tshi thoma na u vha na zwishumiswa zwothe nga tshifhinga tsha nyito.
- ◆ Vhagudisi vha fanela u vha vho vhalala nyito na u kona u amba na vhagudi vha sa khou vhalala *Nyendedzi ya Nyito* mutaladzi nga mutaladzi.
- ◆ Vha lange tshifhinga tsho avhelwaho kha nyito. Vha songo fhedza tshifhinga tshilapfu kha mushumo muthihi u itela uri vha sa pfuke minwe. (Vha humbule uri vhagudi vha Gireidi ya T vha fanela u fhedza minetse ya 10–15 kha nyito nthihi.)
- ◆ Kha vha shumise mbudziso dza phindulo nthihi u ta ndivho/mbuno na u shumisa mbudziso dzo tandavhuwaho u bvukulula u humbula ha vhagudi na u wana uri vha tandululisa hani thaidzo.
- ◆ U thetshesela kha na u lavhelesa mugudi **muñwe na muñwe** zwi n̄tshedza ndivho nga mvelaphanda yavho. Zwi thusa vhone u topola vhukoni ha vhagudi na magake kha zwikili zwavho na/kana kupfeselese.

Session 1: Measurement

1 hour

Facilitator's notes

- ◆ Remind participants that the learners in Grade R measure informally, to find out 'How much of something' there is, by direct comparison and by using non-standard units of measurement. The focus in Grade R is on comparing how many non-standard units something measured. Discuss how learners can develop their estimation skills during measurement activities.

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.

Facilitator's notes

- ◆ For **Activity 2**, set out the materials at different measurement workstations and clearly label each workstation according to the concept:
 - **Length:** string, pencils, sticks
 - **Capacity and volume:** jug, vase, cups, bottles and containers of different sizes (including two containers with different shapes, but the same capacity), bucket of water
 - **Mass:** balance scale, two or more kinds of fruit, books of different masses, one plastic bottle and one glass bottle of different masses
 - **Time:** candles, egg timers, stopwatch (on a cellphone).
- ◆ Divide participants into four groups and assign each group to a different measurement workstation. Explain that the groups will rotate. Participants should answer the questions in their *Participant's Workbook* for each workstation. They will spend about ten minutes at each workstation.

Notsi dza mutshimbidzi

- ◆ Kha vha humbudze vhashelamulenzhe uri vhagudi vha re kha Gireidi ya T vha ela zwi si fomala, u wana uri 'Ndi zwingana zwa zwithu' zwi re hone, nga u vhambedza ho livhaho na nga u shumisa zwa u ela zwi si zwa tshitandadi. Kha Gireidi ya T ho sedzeswa kha u vhambedza uri ndi zwa u ela zwi si zwa tshitandadi zwingana zwine tshithu tsha ela. Kha vha haseledze uri vhagudi vha nga bveledza hani zwikili zwavho zwa u anganyela nga tshifhinga tsha nyito dza u ela.

Kha Kotara ya 1 na 2, tshifhinga na vhulapfu zwo vha zwo sedzwa kha Muelo. Dzulo ili li do sedza hafhu thero idzi na u tandavhudza khaseledzo ya Muelo u itela u katela tshileme, na vhungomu na volumu.

Muelo ndi nga u wana uri 'hu na zwingana' zwi re hone zwa tshithu. Kha Gireidi ya T, muelo u sedzesa kha:

- ◆ tshifhinga
- ◆ vhulapfu
- ◆ tshileme
- ◆ vhungomu na volumu.

Kha nyito i tevhelaho, vha do tandula tshinwe na tshinwe tsha divhaipfi idzi dza muelo.

Vhagudi kha Gireidi ya T vha ela zwi si fomala, nga u vhambedza ho livhaho na u shumisa zwa u ela zwi si zwa tshitandadi. Vhagudi vha bveledza zwikili zwavho zwa u anganyela nga tshifhinga tsha nyito dza u ela dzi si fomala. Vha anganyela uri tshithu tshi na vhulapfu vhungafhani kana u lemela hani vha konaha u shumisa tshishumiswa tsha u ela tshi si tsha tshitandadi u wana uri u anganyela havho ho vha hu hone naa.

Notsi dza mutshimbidzi

- ◆ U itela **Nyito ya 2**, kha vha vhee matheriala zwiitshini zwa u shumela zwo fhambanaho zwa muelo vha leibele zwavhuqi tshiti tshi tsha u shumela tshinwe na tshinwe u ya nga divhaipfi:
 - **Vhulapfu:** muḁali, penisela, zwitanda
 - **Vhungomu na volumu:** bigiri, vasi, khaphu, maboḁelo na zwifaredzi zwa saizi dzo fhambanaho (hu tshi katelwa na zwifaredzi zwivhili zwa zwivhumbeo zwo fhambanaho, fhedzi zwi na vhungomu hu eḁanaho), bakete la maḁi
 - **Tshileme:** tshikalo tsha ndinganyo, tshakha dza mitshelo mbili kana nanzhi, bugu dza zwileme zwo fhambanaho, boḁelo lithihi la pulasitiki na boḁelo lithihi la ngilasi a zwileme zwo fhambanaho
 - **Tshifhinga:** makhandela, tshikala tshifhinga tsha makumba, watshi ya u kala tshifhinga (kha luḁingothendeleki).
- ◆ Kha vha khethekanye vhashelamulenzhe nga zwigwada zwiḁa vha rumele tshigwada tshinwe na tshinwe tshiti tshini tsha u shumela tsha muelo wo fhambanaho. Kha vha ḁalutshedze uri zwigwada zwi do tshintshana. Vhashelamulenzhe vha fanela u fhindula mbudziso dzi re ngomu ha *Bugu ya Mushumo ya Vhashelamulenzhe* yavho tshiti tshini tsha u shumela tshinwe na tshinwe. Vha do fhedza minetse ya fumi tshiti tshini tsha u shumela tshinwe na tshinwe.

- ◆ After the activity, discuss each workstation. Discuss how accurate the estimations were and which of the estimations could not be checked by measuring with the tools provided, e.g., the tallest person, whether it would take longer to eat lunch or drive to school.
- ◆ Highlight how learners need many opportunities to develop their comparison and estimation skills before they can use standard units of measurement.



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?

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

	Estimate (guess)	Non-standard unit of measurement	Length
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?			

- ◆ Nga murahu ha nyito, kha vha haseledze tshitiṱtshi tsha u shumela tshiṱwe na tshiṱwe. Kha vha haseledze u anganyela havho uri ho vha hone naa na uri ndi hufhio haho he ha si ṱolee nga zwishumiswa zwa u ela zwe vha ṱewa, sa tsumbo: muthu mulapfusesa, arali zwi tshi ḍo dzhia tshifhinga tshilapfu u ḷa tshiswiṱulo kana u reila u ya tshikoloni.
- ◆ Kha vha bwisele khagala uri vhagudi vha ṱoḍa hani zwikhala zwizhi zwa u bveledza zwikili zwavho zwa u vhambedza na u anganyela phanḍa ha musi vha tshi nga shumisa zwa u ela zwa tshitandadi.



Nyito ya 2

Na tshigwada tshavho, kha vha tshimbile vhaye tshitiṱtshini tsha u shumela tsha muelo tshe vha ṱewa tshone vha fhindlele mbudziso dzi re ngomu ha *Bugu ya Mushumo ya Vhashelamulenzhe*. Vha tshintshane vha ye kha tshiṱwe tshitiṱtshi tsha u shumela musi vha tshi wana ngafhadzo.

Vhulapfu

Kha vha sedze siatari ḷa 211 ḷa *Nyendedzi ya Divhaipfi*. Ndi ḍivhaipfi ifhio ye vha shumisa nga tshifhinga tsha nyito iyi?

Kha vha wane phindulo ya tshiṱwe na tshiṱwe tsha zwi tevhelaho vha topole zwa u ela zwi si zwa tshitandadi zwe vha shumisa.

	U anganyela (u humbulela)	Zwa u ela zwi si zwa tshitandadi	Vhulapfu
1. Ndi nnyi a re na tshienda tshilapfusesa?			
2. Ndi nnyi a re na tshipufhisesa?			
3. <i>Bugu ya Mushumo ya Vhashelamulenzhe</i> yavho yo lapfa hani?			
4. Ndi nnyi a re na mukonwo mulapfusesa?			
5. ṱafula yavho yo ṱanḍavhuwa lungafhani?			
6. Vhulapfu ha muṱango ho itwa nga zwanḍa zwingana zwa u kala?			

Capacity and volume

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

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

	Estimate (guess)	Non-standard unit of measurement	Capacity or volume
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?			

Mass

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

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

	Estimate (guess)	Non-standard unit of measurement	Mass
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?			

Vhungomu kana volumu

Kha vha sedze siatari la 211 la *Nyendedzi ya Divhaipfi*. Ndi divhaipfi ifhio ye vha shumisa nga tshifhinga tsha nyito iyi?

Kha vha wane phindulo ya tshiñwe na tshiñwe tsha zwi tevhelaho vha topole zwa u ela zwi si zwa tshitandadi zwe vha shumisa.

	U anganyela (u hambulela)	Zwa u ela zwi si zwa tshitandadi	Vhungomu kana volumu
1. Ndi zwifaredzi zwivhili zwifhio zwa maḁi zwine zwa ḁo ḁadza bigiri?			
2. Ndi boḁelo liḁhio li faraho vhunzhi ha khaphu dza maḁi?			
3. Ndi khaphu nngana dza maḁi dzine na hambula uri dzi nga ḁadza vasi?			
4. Ndi khapu nngana dza maḁi dzine dzi nga ḁadza hafu ya vasi?			
5. Ndi tshifaredzi tshifhio tshi re kha ḁafula tshi re na maḁi maḁukusa ngomu hatsho?			
6. Ndi zwifaredzi zwivhili zwifhio zwi re na maḁi a eḁanaho?			

Tshileme

Kha vha sedze siatari la 211 la *Nyendedzi ya Divhaipfi*. Ndi divhaipfi ifhio ye vha shumisa nga tshifhinga tsha nyito iyi?

Kha vha wane phindulo ya tshiñwe na tshiñwe tsha zwi tevhelaho vha topole zwa u ela zwi si zwa tshitandadi zwe vha shumisa.

	U anganyela (u hambulela)	Zwa u ela zwi si zwa tshitandadi	Tshileme
1. Ndi mukhwama wa nnyi tshigwadani tshavho u lemelesaho?			
2. Ndi bugu ifhio tshigwadani tshavho i leluwesaho?			
3. Ndi nnyi a lemelesaho tshigwadani tshavho? Ndi nnyi a leluwesaho?			
4. Ndi mutshelo ufhio u lemelesaho?			
5. Ndi boḁelo liḁhio li lemelesaho?			

Time

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

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

	Estimate (guess)	Non-standard unit of measurement	Time
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?			

Facilitator's notes

- ◆ Wrap up Session 1 with a discussion about how participants would be able to set up similar activities in their classrooms. Encourage discussion about issues of space, resources and discipline.

Tshifhinga

Kha vha sedze siaṭari ḷa 211 ḷa *Nyendedzi ya Divhaipfi*. Ndi divhaipfi ifhio ye vha shumisa nga tshifhinga tsha nyito iyi?

Kha vha wane phindulo ya tshiṅwe na tshiṅwe tsha zwi tevhelaho vha topole zwa u ela zwi si zwa tshitandadi zwe vha shumisa.

	U anganyela (u hambulela)	Zwa u ela zwi si zwa tshitandadi	Tshifhinga
1. Ndi nnyi o swikaho nga u ṭavhanyesa matsheloni ano?			
2. Ndi nnyi o swikaho o lengesa?			
3. Zwi dzhia tshifhinga tshingafhani u tshimbila u bva tshiduloni tshavho u ya goloini?			
4. Ndi nnyi o tshimbilaho nga u ṭavhanyesa u bva tshiduloni tshawe u ya goloini?			
5. Zwi nga dzhia tshifhinga tshilapfu u ḷa tshiswiṭulo kana u reila u ya tshikoloni?			

Notsi dza mutshimbidzi

- ◆ Kha vha pendele Dzulo ḷa 1 nga khaseledzo nga uri vhashelamulenzhe vha ḍo kona hani u dzudzanya nyito dzi fanaho na idzi ngomu kḷasini dzavho. Kha vha ṭuṭuwedze khaseledzo nga mafhungo a tshikhala, zwishumiswa na vhuḍifari.

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?

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.

Facilitator's notes

- ◆ Show Video 2. After the video, discuss what participants observed.
- ◆ Point out that mass is an abstract concept. Learners cannot see whether something is heavy or light. Teachers in Grade R often introduce the concept of mass with a balance scale so that learners can see what happens when an object is placed on each of its sides.
- ◆ Find out how participants have used a balance scale in their classrooms.
- ◆ Often learners notice that one side of the balance scale goes up and one side goes down, but they think that this is because the side of the scale that is higher is heavier. Teachers can help by pointing out that the side with the heavier object always goes down.



Video 2

Activity Guide: Term 3, Week 5, Day 1 #4 (pages 88–91); Day 2 #4 and 5 (pages 90–93); Day 3 #4 (pages 92–95); Day 4 #4 (pages 94–95); Day 5 #4 (pages 96–97)

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?

Dzulo la 2: Muelo (u bvela phanda)

Awara 1



Nyito ya 3

Kha vha sedze nyito dza muelo dze vha tshenzhela kha Nyito ya 2. Kijasirumu yavho yo dzudzanywa hani u itela u netshedza tshenzhemo ya u guda i fanaho?

Kha Gireidi ya T, Muelo u sedzesa kha u anganyela, u kala, u vhambedza na u tevhekanya zwithu u ya nga uri zwi lemela kana u leluwa hani.

Vhagudi vha nga wana zwi tshi vha kondela u pfesesa uri tshithu tshituku tshi nga lemelesesa u fhira tshithu tshihulwane. Vha toda zwickhala zwinzhi u itela u tandula zwithu zwituku zwi lemela, zwithu zwituku zwi leluwaho, zwithu zwickhala zwi lemela na zwithu zwickhala zwi leluwaho.

Notsi dza mutshimbidzi

- ◆ Kha vha sumbedze Vidiyo ya 2. Nga murahu ha vidiyo, kha vha haseledze zve vhashelamulenzhe vha vhona.
- ◆ Kha vha ambe uri tshileme a si divhaipfi ya khumbulelwa. Vhagudi a vha koni u vhona arali tshithu tshi tshi lemela kana tshi tshi leluwa. Vhagudisi kha Gireidi ya T vha anzela u divhadza divhaipfi ya tshileme nga tshikalo tsha ndinganyo u itela uri vhagudi vha kone u vhona zwine zwa khou itea musi tshithu tsho vhewa kha sia linwe na linwe latsho.
- ◆ Kha vha wane uri vhashelamulenzhe vho shumisa hani tshikalo tsha ndinganyo kijasini dzavho.
- ◆ Tshifhinga tshinzhi vhagudi vha a kona u vhona uri sia lithi la tshikalo tsha ndinganyo li gonya ntha ngeno linwe li tshi tsela fhasi, fhedzi vha humbula uri izwi ndi nga nthani ha uri sia la tshikalo li re ntha li a lemela. Vhagudisi vha nga thusa nga u sumbedza uri sia li re na tshithu tshi lemela li dzulela u tsa fhasi.



Vidiyo ya 2

Nyendedzi ya Nyito: Kotara ya 3, Vhege ya 5, Duvha la 1 #4 (masiatari a 88-91); Duvha la 2 #4 na 5 (masiatari a 90-93); Duvha la 3 #4 (masiatari a 92-95); Duvha la 4 #4 (masiatari a 94-95); Duvha la 5 #4 (masiatari a 96-97)

Kha vha talele vidiyo ya u vhambedza tshileme tsha tshithu tshithi na tshinwe.

Kha vha haseledze mbudziso idzi.

- ◆ Vha khou vhona hu tshi khou itea mini?
- ◆ Ndi divhaipfi ifhio ine ya khou funzwa na u gudwa?
- ◆ Ndi zwikili zwifhio zwi no khou itwa ndowendowe yazwo?
- ◆ Vhagudi vha khou ita mini na u amba zwifhio?
- ◆ Mugudisi u khou konanya hani u guda?

Session 3: Revisiting Grade R maths topics

1 hour

Facilitator's notes

- ◆ Each group needs newsprint, kokis, Prestik and a *Resource Kit*.
- ◆ Allocate one topic to each small group.
- ◆ Small groups discuss the topic they are given and prepare a presentation for the whole group.
- ◆ As the groups are working, join their discussions and provide input on the content where they need this for their presentations.
- ◆ To support the participants' discussions, refer them to the relevant sections on pages 138–219 of the *Concept Guide*.

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.

Dzulo la 3: U lavhelesa hafhu thero dza mbalo dza Gireidi ya T

Awara 1

Notsi dza mutshimbidzi

- ◆ Tshigwada tshiñwe na tshiñwe tshi toḁa bammbiri la gurannḁa, dzikhokhi, Tshinambatedzi na *Khithi ya Zwishumiswa*.
- ◆ Kha vha avhele thero nthihi kha tshigwada tshiḁuku tshiñwe na tshiñwe.
- ◆ Zwigwada zwiḁuku zwi haseledza thero ye zwa ḁewa zwa dzudzanya mukumedzo wa tshigwada tshoḁhe.
- ◆ Zwenezwi zwigwada zwi tshi khou shuma, kha vha dzhoine khaseledzo dzazwo vha ḁetshedze mañwe mafhungo nga magudiswa hune zwa toḁa izwi u itela mikumedzo yazwo.
- ◆ U itela u tikedza khaseledzo ya vhashelamulenzhe, kha vha vha rumele kha khethekanyo dzo teaho kha masiaḁari a 138–219 a *Nyendedzi ya Divhaipfi*.

Vhunga vha tshi zwi ḁivha, Mbekanyamushumo ya Mbalo yo dizainwa u ḁivhadza ndivho ntswa na u fhaḁa khayoy hu bvelaho phanḁa kha vhege dzoḁhe na kotara dzoḁhe. Nga tshifhinga tsha dzulo ili, ri ḁo lavhelesa hafhu Sia la Magudiswa na thero dze ra kwama kha wekishopo dzo fhiraho nahone ri ḁo haseledza uri thero idzi dzo kumedzwa hani kha Mbekanyamushumo ya Mbalo.



Nyito ya 4

Mutshimbidzi u ḁo ḁea tshigwada tshiñwe na tshiñwe thero uri tshi haseledze.

Vha khou fanela u dzudzanya mukumedzo nga kupfesesele kwavho kwa thero na uri Mbekanyamushumo ya Mbalo i shuma hani na mveledziso ya ḁivhaipfi na zwikili zwi re na vhushaka nayo. Kha vha vhale mafhungo o teaho a tshimbilelanaho na thero yavho ngomu ha *Nyendedzi ya Divhaipfi* (masiaḁari a 138–219).

Vha ḁo wana NTHIHI ya thero dzi tevhelaho:

1. Zwivhumbeo zwi ḁivhadzwa na u pfumbiswa hani kha Mbekanyamushumo ya Mbalo? Kha vha sedze kha Kotara ya 3, Vhege ya 4, ḁuvha la 1, 2 na 3 u itela u tikedza khaseledzo yavho.
2. Vhuimo na sia ndi ḁivhaipfi i konḁaho u i pfesesa kha vhana vhaḁuku. Mbekanyamushumo ya Mbalo i kumedza hani thero idzi kha Kotara ya 1, 2 na 3? Kha vha sedze kha Kotara ya 3, Vhege ya 4, ḁuvha la 4 na 5 u itela u tikedza khaseledzo yavho.
3. Kotara ya 3, Vhege ya 4, ḁuvha la 5 li shuma na thero ya ndinganyahuvhili. Kha vha ḁalutshedze kupfesesele kwavho kwa thero iyi. Kha vha ambe nga tshenzhemo yavho ya u funza ndinganyahuvhili na uri vhagudi vhavho vho sumbedzisa hani u i pfesesa.
4. Magaraḁa a tshithoma a shumiswa kha Mbekanyamushumo ya Mbalo yoḁhe. Kha vha haseledze ndeme ya u shumisa itshi tshishumiswa na arali/tshi shela hani mulenzhe kha u fhaḁa ḁivhaipfi ya nomboro. Kha vha sedze kha Kotara ya 3, Vhege ya 4 na 6 u itela u tikedza khaseledzo yavho.
5. Kha vha haseledze ndowelo ine ya shumiswa u ḁivhadza nomboro ntswa kha Mbekanyamushumo ya Mbalo. Kha vha ḁalutshedze uri ndowelo iyi i fhaḁa u ya phanḁa hani na u pfumbisa mveledziso ya ḁivhaipfi ya nomboro. Kha vha sedze kha Kotara ya 3, Vhege ya 6 u itela u tikedza khaseledzo yavho.

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?

Facilitator's notes

- ◆ While each group is presenting, guide the discussion and ensure that the issues linked to the content have been dealt with.

6. Kha vha t̄alutshedze uri thaidzo dza ipfi dzi shumiswa hani u funza u t̄anganya, u t̄usa, u vhea nga zwigwada (muandiso) na u kovha u eḁana (u kovha). Kha vha haseledze ndeme ya u shumisa luambo na mbumbo ya thaidzo ya ipfi. Ho katelwa hafhu na mutikedzelo wa u shumisa minwe na zwithu zwi fareaho nga tshifhinga tsha nyito dza u tandulula thaidzo. Kha vha sedze kha Vhege ya 6, D̄uvha ̄a 5 na nyito dzo rangwaho phanḁa nga mugudisi u itela u ̄nea tsumbo.
7. Mbekanyamushumo ya Mbalo i tshimbidza hani u guda u tevhekanya/mutevhekanyo wa u vhalela nomboro (u vhalela ha mutevhetsindo)? Vha sedze tshiṅwe na tshiṅwe tsha zwishumiswa zwi re afho fhasi u itela u tikedza khaseledzo yavho:
- ◆ nyimbo na zwidade
 - ◆ muthambi wa u anea nomboro
 - ◆ tshiṅepisi tsha u fhufha
 - ◆ magaraṅa a zwiḁa zwa nomboro.
- Nyito idzi dzi t̄umana hani na ḁivhaipfi ya nomboro thevhekano? Kha vha sedze kha Kotara ya 3, Vhege ya 6 u itela tsumbo dza u tikedza khaseledzo yavho.
8. U kona u pfesesa ha vhukuma ha u vhalela hu swikelelwa musi vhagudi vha tshi kona u vhalela tshithu tshiṅwe na tshiṅwe tshi re kha khuvhanganyo na u ḁivha uri nomboro ya u fhedzisela u vhaliwa yo imela t̄hanganyelo ya nomboro ya khuvhanganyo. Izwi ndi ḁivhaipfi i kondelaho vhagudi u i pfesesa. Mbekanyamushumo ya Mbalo i ̄netshedza hani vhagudi zwikhala zwa u bveledza ḁivhaipfi ya tshivhalo tsha zwithu kha sete?

Notsi dza mutshimbidzi

- ◆ Musi tshigwada tshiṅwe na tshiṅwe tshi tshi khou kumedza mukumedzo, kha vha endedze khaseledzo vha khwaṅhisedze uri mafhungo a re na vhuṅumani na magudiswa o shumiwa nao.

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.

Facilitator's notes

- ◆ Move between the groups as participants discuss the planning and preparation for teaching Term 3 Weeks 4–6 in **Activity 5**. Assist by making suggestions on overcoming challenges.
- ◆ Each group presents their main discussion points to the whole group.



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?

Dzulo la 4: U pulanela u funza

Awara 1½

Ndi zwa ndeme u pulana na u lugisela nga vhudzivha vhege inwe na inwe. Izwi zwi do vha thusa uri vha vhe na fulufhelo nga zwine vha khou ita na u vha thusa u sedzesa kha u funza na u shuma na vhagudi. Vhunga vho no di zwi vhona kha Kotara ya 1 na 2, Mbekanyamushumo ya Mbalo yo dzudzanywa nga vhuronwane, nahone magudiswa a mbalo o kumedzwa nga u tevhekana ha mveledziso hu bvelaho phanda. Yo dizainiwa u itela u khwaḥisedza uri magudiswa oḥthe a Mbalo dza Gireidi ya T na zwikili zwo kwamiwa nahone vhagudi vho lugiselwa zwavhuḍi Gireidi ya 1. Vhagudisi vha fanela u ḥhogomela musi vha tshi nanga nyito u bva kha vhege dzo fhambanaho na u litsha dziḥwe nyito.

Notsi dza mutshimbidzi

- ◆ Kha vha tshimbile vhukati ha zwigwada zwenezwi vhashelamulenzhe vha tshi khou haseledza u pulana na u lugisela u funza Kotara ya 3 Vhege ya 4–6 dza **Nyito ya 5**. Kha vha vha thuse nga u dzinginya nga ha u kunda khaedu.
- ◆ Tshigwada tshiḥwe na tshiḥwe tshi kumedza mbuno dzatsho dza ndeme dza khaseledzo kha tshigwada tshihulwane.



Nyito ya 5

1. Tshigwadani tshavho, kha vha fhedzise themphuleithi ya u pulana ya Kotara ya 3 Vhege ya 4–6 (Ḥhumetshedzo ya A).
2. Tshigwada tshavho tshi do kumedza manweledzo a khaseledzo ya u pulana havho kha zwiḥwe zwigwada. Kha vha ḥwale mbuno khulwane dza khaseledzo yavho kha bambiri la filipitshati. Vha katele phindulo dza mbudziso dzi tevhelaho:
 - ◆ Vha nga shuma hani na mushumisani u lugisela vhege inwe na inwe?
 - ◆ Vhege yo dzudzanywa hani?
 - ◆ Thero dzi fhaḥa hani u bva kha ngudo dzo fhiraho?
 - ◆ Hone mishumo ya kiḥasi yoḥthe i a kona u vula zwavhuḍi ḥḍila ya khaseledzo na thandululo ya ḥḍivho ntswa?
 - ◆ Nyito yo rangwaho phanda nga mugudisi i ḥetshedza hani mugudisi zwickhala zwa u linga na u tikedza vhagudi?
 - ◆ Hone nyito dza tshigwada tshiḥuku dzo ḍiimisaho dzi a tendela ḥḍowenḍowe yo linganelaho ya ḥḍivho ntswa na zwikili?

Closing activities

30 minutes

Facilitator's notes

- ◆ **Workshop reflection:** Ask participants to take a few minutes to reflect on the day and to page through their *Participant's Workbook*. Ask them to jot down any questions or comments to share with the whole group.
Ask individual participants to volunteer responses to the following:
 - I learnt ...
 - I did not like ...
 - I enjoyed ...
 - I now understand ...
 - I'm still not clear about ...
 - I would like more information on ...
- ◆ Encourage participants to add any comments and feedback not yet shared to the post box.
- ◆ **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 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.

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.

Notsi dza mutshimbidzi

- ◆ **U amba nga wekishopo:** Kha vha humbele vhashelamulenzhe u dzhia minetse i si gathi u amba nga ḏuvha na u fhenḁa *Bugu ya Mushumo ya Vhashelamulenzhe* yavho. Kha vha vha humbele u ṉwala mbudziso dziṅwe na dziṅwe kana mahumbulwa u itela u kovhana na tshigwada tshoṭhe. Kha vha humbele vhashelamulenzhe nga vhoṭhe u vha vhathu vho ḏiṅetshedzaho u fhindula zwi tevhelaho:
 - Ndo guda ...
 - A tho ngo takalela ...
 - Ndo ḏiphina ...
 - Zwino ndi pfesesa ...
 - A thi athu vha khagala nga ...
 - Ndi kha ḏi ṭoḁa maṅwe mafhungo manzhi nga ...
- ◆ Kha vha ṭuṭuwedze vhashelamulenzhe u engedza mahumbulwa maṅwe na mbigela murahu zwi sa athu kovhiwa kha bogisi ḁa poswo.
- ◆ **Mushumo wa u ṭuwa nawo tshikoloni:** Kha vha vhale mushumo uyu. Kha vha vhudzise arali hu na zwiṅwe zwi sa pfali zwine zwa ṭoḁa u ṭalutshedzwa.
- ◆ **U linga:** Kha vha phakhele khophi dza Fomo ya u Linga ya Wekishopo vha ri vhashelamulenzhe vha ḁadze idzo fomo
- ◆ **Wekishopo i tevhelaho:** Kha vha ṉee maḁuvha a wekishopo i tevhelaho vha vale wekishopo.



Nyito ya 6

U amba nga wekishopo: Kha vha dzhie minetse i si gathi u amba nga ḏuvha. Kha vha fhende *Bugu ya Mushumo ya Vhashelamulenzhe* yavho u ḏi humbudza nga zwe zwa kwamiwa. Kha vha ṉwale mihumbulo yavho.

Kha vha kovhane zwe vha amba na tshigwada tshihulwane.



Mushumo wa u ṭuwa nawo tshikoloni

1. Kha vha shumise *Nyendedzi ya Nyito: Kotara ya 3* u pulana na u thoma Kotara ya 3 Vhege ya 4–6 dza Mbekanyamushumo ya Mbalo.
2. Kha vha ṉwale mahumbulwa buguni ine vha i shumisa u itela u sedza mvelaphanda ya mugudi muṅwe na muṅwe (bugu ya u lavhelesa vhagudi). Kha vha shumise mutevhe wa u lavhelesa wa '**Kha vha ṭole uri vhagudi vha a kona u'** (kha iṭo tshibogisini) nga tshifhinga tsha nyito dzo rangwaho phanda nga mugudisi dziṅwe na dziṅwe u itela u endedza u lavhelesa havho na mahumbulwa.

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.

3. Kha vha ite notsi dza zwa shuma zwavhuḁi, zwa zwa si shume zwavhuḁi, na uri vho tandulula hani dzikhaedu dziḁwe na dziḁwe nga tshifhinga tsha u thoma havho Kotara ya 3 Vhege ya 4–6.
4. Kha vha ḁe na bugu ya u lavhelesa vhagudi na notsi dze vha ita musi vha tshi khou amba nga u funza ha ḁuvha liḁwe na liḁwe kha wekishopo i tevhelaho.

U linga

Kha vha ḁadze Fomo ya u Linga.

APPENDIX A: TERM 3 WEEKLY PLANNING TEMPLATE

Term 3: Activity Plan: Week ____

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

THUMETSHEDZO YA A: THEMPHULEITHI YA U PULANA YA VHEGE NGA VHEGE YA KOTARA YA 3

Kotara ya 3: Pulane ya Nyito: Vhege _____

SIA LA MAGUDISWA:				
THERO:				
KHA VHA DIVHADZE NDIVHO NTSWA:				
NDOWEDZO:				
Nyito dza kilasi yothe		Nyito yo rangwaho phanda nga mugudisi		Nyito dza tshitshini tsha u shumela (nyito dza tshigwada tshituku tsho diimisaho)
Duvha la 1				Nyito ya 1
Duvha la 2				Nyito ya 2
Duvha la 3				Nyito ya 3
Duvha la 4				Nyito ya 4
Duvha la 5				

Term 3: Activity Plan: Week ____

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

Kotara ya 3: Pulane ya Nyito: Vhege ____

SIA LA MAGUDISWA:				
THERO:				
KHA VHA DIVHADZE NDIVHO NTSWA:				
NDOWEDZO:				
Nyito dza kilasi yothe		Nyito yo rangwaho phanda nga mugudisi	Nyito dza tshitshini tsha u shumela (nyito dza tshigwada tshituku tsho diimisaho)	
Duvha la 1			Nyito ya 1	
Duvha la 2			Nyito ya 2	
Duvha la 3			Nyito ya 3	
Duvha la 4			Nyito ya 4	
Duvha la 5				

Term 3: Activity Plan: Week ____

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

Kotara ya 3: Pulane ya Nyito: Vhege ____

SIA LA MAGUDISWA:				
THERO:				
KHA VHA DIVHADZE NDIVHO NTSWA:				
NDOWEDZO:				
Nyito dza kilasi yothe		Nyito yo rangwaho phanda nga mugudisi	Nyito dza tshitshini tsha u shumela (nyito dza tshigwada tshituku tsho diimisaho)	
Duvha la 1			Nyito ya 1	
Duvha la 2			Nyito ya 2	
Duvha la 3			Nyito ya 3	
Duvha la 4			Nyito ya 4	
Duvha la 5				

Workshop 8 Evaluation Form

1. Did the workshop meet your expectations?

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

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

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

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

Fomo ya u LINGA ya Wekishopo ya 8

1. Wekishopo yo swikelela ndavhelelo dzavho?

2. Ndi zwifhio zwe vha guda kha iyi wekishopo zwe zwa vha thusesa?

3. Ho vhuya ha vha na zwiṅwe zwe vha si zwi takalele kana zwe vha konḑelwa u zwi pfesesa?

4. Vha ḑo shumisa hani zwe vha guda ngomu kiḷasirumuni yavho ya Gireidi ya T?

5. Vha na zwine vha tama u dzinginya u itela u khwinisa wekishopo dzi tevhelaho?
