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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 4 • Workshop 4
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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Mbalo dza Gireidi ya T na Thandela ya u Khwinisa Dzinyambo ndi vhurangeli ha **Gauteng Department of Education** na vhafarakani navho vha ndeme vha, **Gauteng Education Development Trust**.

Mveledziso na vhubvedzi ha vhubfumbudzi na zwishumiswa zwa kilasirumu ya Mbalo dza Gireidi ya T na Thandela ya u Khwinisa Dzinyambo zwo konadzea nga ndambedzo ya thandela u bva kha vha **United States Agency for International Development** na vha **Zenex Foundation**.

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Overview

Purpose

This is the fourth 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. Participants will have the opportunity to reflect on their observations and explore how the **level principle** informs planning, teaching and learning. Participants will also consider the **level principle** and how to respond to learners with individual developmental and learning needs. The sessions will provide additional knowledge and understanding of teaching and learning in the Content Areas covered in Week 10 of Term 1, and Weeks 1–3 of Term 2.

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 1 Weeks 6–9
- ◆ To explore strategies to support teaching maths in Grade R
- ◆ To start to present solutions to learner progress and developmental levels
- ◆ To apply the Maths Programme principles in weekly planning
- ◆ To engage with the Maths Programme content of Term 1 Week 10 and Term 2 Weeks 1–3 (Data Handling; Numbers, Operations and Relationships; Space and Shape (Geometry))

Workshop content

- ◆ Opening and reflection (1 hour)
 - ◆ Session 1: Data Handling (1 hour)
- TEA
- ◆ Session 2: Numbers, Operations and Relationships (1 hour)
 - ◆ Session 3: Space and Shape (Geometry) (1 hour)
- LUNCH
- ◆ Session 4: Planning for teaching (2 hours)

Manweledzo

Ndivho

Iyi ndi wekishopo ya vhuṅa kha dza fumimbili dza Mbekanyamushumo ya u Khwinifhadza Mbalo dza Gireidi ya T ine ya vhumba tshipiḁa tsha Muhasho wa Pfunzo wa Gauteng (GDE) Mbalo dza Gireidi ya T 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 zve vha vhona na u tandula uri **mulayo wa maimo** u thusa hani u pulana, u funza na u guda. Vhashelamulenzhe vha ḁo dzhiela nzhele **mulayo wa maimo** na uri vha nga shuma hani na vhagudi vha re na ḁoḁea dza u guda na mveledziso ya mugudi a eḁhe. Dzulo li ḁo ṅetshedza ndivho ya u engedza na u pfesesa u funza na u guda kha Masia a Magudiswa o kwamiwaho kha Vhege ya 10 ya Kotara ya 1, na Vhege ya 1–3 dza Kotara ya 2.

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

Mvelelo dza u guda

- ◆ U humbula nga u thomiwa ha Kotara ya 1 Vhege ya 6–9
- ◆ U tandula maano u itela u tikedza u funza mbalo kha Gireidi ya T
- ◆ U thoma u ṅetshedza thandululo kha mvelaphanda ya vhagudi na levele dza mvelaphanda
- ◆ U shumisa milayo ya Mbekanyamushumo ya Mbalo kha vhupulani ha vhege nga vhege
- ◆ U shuma na magudiswa a Mbekanyamushumo ya Mbalo a Kotara ya 1 Vhege ya 10 na Kotara ya 2 Vhege ya 1–3 (U shuma na Data; Nomboro, Tswayo na Vhushaka; Tshikhala na Tshivhumbeo (Dzhometiri))

Magudiswa a wekishopo

- ◆ Mvulatswinga na mihumbulo (Awara 1)
 - ◆ Dzulo la 1: U shuma na Data (Awara 1)
- TIE
- ◆ Dzulo la 2: Nomboro, Tswayo na Vhushaka (Awara 1)
 - ◆ Dzulo la 3: Tshikhala na Tshivhumbeo (Dzhometiri) (Awara 1)
- TSHISWITULO
- ◆ Dzulo la 4: U pulanela u funza (Awara 2)

Preparation

- ◆ PPT welcome and outcomes
- ◆ Read:
Concept Guide, pages 136–137, 212–219
Activity Guide: Term 1, pages 18–21
Appendix A: Term 1 and 2 Weekly Content Summary
- ◆ Set out a Maths Programme *Resource Kit* on each group's table.
- ◆ PPT: Data Handling cycle.
- ◆ Prepare the story, *They pulled and they pulled*, (*Activity Guide: Term 2*, pages 62 and 198).

Materials

- ◆ Flipchart paper, kokis
- ◆ *Resource Kit*: animal counters
- ◆ *Resource Kit*: attribute blocks
- ◆ A copy of *Activity Guide: Term 2* for each participant

Ndugiselo

- ◆ PPT u tangedza na mvelelo
- ◆ Kha vha vhale:

Nyendedzi ya Divhaipfi, masiatari a 136–137, 212–219

Nyendedzi ya Nyito: Kotara ya 1, masiatari a 18–21

Thumetshedzo ya A: Manweledzo a Magudiswa a Vhege nga Vhege a Kotara ya 1 na 2

- ◆ Kha vha dzudzanye *Khithi ya Zwishumiswa* ya Mbekanyamushumo ya Mbalo kha tafula ya tshigwada tshinwe na tshinwe.
- ◆ PPT: mutevhetshandu wa u shuma na Data.
- ◆ Kha vha dzudzanye tshitori, *Vha kokodza vho kokodza*, (*Nyendedzi ya Nyito: Kotara ya 2*, masiatari a 63 na 199).

Matheriala

- ◆ Bammbiri la filipitshati, dzikhokhi
- ◆ *Khithi ya Zwishumiswa*: zwithu zwa u vhalela ngazwo zwa phukha
- ◆ *Khithi ya Zwishumiswa*: zwibuloko zwa zwidombedzwa
- ◆ Khophi ya *Nyendedzi ya Nyito: Kotara ya 2* ya mushelamulenzhe muñwe na muñwe

Opening and reflection

1 hour

Facilitator's notes

- ◆ PPT: Learning outcomes of the workshop.
- ◆ Remind participants of the *Take back to school* task from the end of Workshop 3.
- ◆ Refer participants to **Activity 1** and read through the instructions. Participants complete the activity in their groups. Groups share key points with the large group.
- ◆ Remind participants of the **level principle** and the importance of taking into account the learners' different abilities and developmental levels.

Reflect on the implementation of the Maths Programme in your daily programme and complete the following activity in your group.



Activity 1

Discuss your progress in implementing the *Take back to school* task from Workshop 3.

Refer to the observation check boxes at the end of each week in *Activity Guide: Term 1*, Weeks 6, 7, 8 and 9.

1. What insights did you gain while observing learners during their Mathematics focus time?

2. What did you find difficult about the observation during the teacher-guided activity?

3. Mention one new thing that is working well with your implementation of Term 1 Weeks 6–9. Have you found that the Maths Programme is assisting with teaching and learning in your Grade R class?

According to the **level principle**, differentiation means that what you teach and how you teach it needs to take into account the different abilities or developmental levels of your learners. To use this approach, you need to continuously observe and record each learner's progress and development in maths.

Notsi dza mutshimbidzi

- ◆ PPT: Mvelelo dza u guda dza wekishopo.
- ◆ Kha vha humbudze vhashelamulenzhe nga *Mushumo wa u țuwa nawo tshikoloni* u bva mafheleloni a Wekishopo ya 3.
- ◆ Kha vha rumele vhashelamulenzhe kha **Nyito ya 1** vha vhale ndaela. Vhashelamulenzhe vha fhedzisa nyito vhe zwigwadani zwavho. Zwigwada zwi kovhana mbuno dza ndeme na tshigwada tshihulwane.
- ◆ Kha vha humbudze vhashelamulenzhe nga **mulayo wa maimo** na ndeme ya u dzhiela nzhele vhukoni ho fhambanaho na maimo a mveledziso zwa vhagudi.

Kha vha ambe nga mathomele a Mbekanyamushumo ya Mbalo kha mbekanyamushumo ya đuvha liñwe na liñwe yavho vha fhedzise nyito i tevhelaho vhe tshigwadani tshavho.



Nyito ya 1

Kha vha haseledze mvelaphanđa yavho kha u thoma *Mushumo wa u țuwa nawo tshikoloni* u bva kha Wekishopo ya 3.

Kha vha sedze mabogisi a u țola zwe vha vhona mafheleloni a vhege inwe na inwe kha *Nyendedzi ya Nyito: Kotara ya 1, Vhege ya 6, 7, 8 na 9.*

1. Ndi zwifhio zwe vha vhuvelwa ngazwo musi vha tshi khou sedza vhagudi nga tshifhinga tsha fhethu ho sedzwaho tsha Mbalo tshavho?

2. Ndi tshini tshe vha wana tshi tshi konđa nga zwe vha vhona nga tshifhinga tsha nyito yo rangwaho phanđa nga mugudisi?

3. Kha vha ambe tshithu tshiswa tshithihi tshine tsha khou shuma zwavhuđi nga u thoma havho ha Kotara ya 1 Vhege ya 6–9. Vho vhuya vha wana uri Mbekanyamushumo ya Mbalo i khou thusa nga u funza na u guda kiłasini yavho ya Gireidi ya T?

U ya nga **mulayo wa maimo**, u fhambanyisa zwi amba uri zwine vha funza na uri vha zwi funza hani zwi fanela u dzhiela nzhele vhukoni ho fhambanaho kana levele dza mveledziso dza vhagudi vhavho. U shumisa maele aya, vha fanela u bvela phanđa na u sedza na u rekhoda mvelaphanđa ya mugudi muñwe na muñwe na mveledziso kha mbalo.

Session 1: Data Handling

1 hour

Facilitator's notes

- ◆ This workshop focuses on teaching the content of the Maths Programme for Term 1 Week 10 and Term 2 Weeks 1–3.
- ◆ Explain that the focus of Term 1 Week 10 is on Data Handling.
- ◆ Refer participants to pages 136–137 of the *Concept Guide*.
- ◆ Ask participants to work in groups to complete **Activity 2**. Ask one person from each group to share their ideas.

This workshop focuses on teaching the following Maths Programme content: Term 1 Week 10 and Term 2 Weeks 1–3. This session focuses on Term 1 Week 10: Data Handling.

Term 1 Content overview: Data Handling

Refer to the Data Handling Content Area on pages 136–137 of the *Concept Guide*.



Activity 2

In your group, discuss:

1. What Data Handling content is covered in Term 1?

2. What does the Maths Programme add to the content from CAPS?

Working with data

Facilitator's notes

- ◆ Start this session with the following activity.
Ask participants who are wearing trainers to stand together.
Ask participants who are wearing sandals to stand together.
Ask participants who are wearing high heels to stand together.
Ask participants who are wearing closed shoes to stand together.
(NOTE: Change this activity according to the season and the types of shoes participants are wearing.)
Once the participants are in groups, discuss the following questions:
Which group has more people?
Which group has fewer people?
Which groups have the same number of people in them?

Notsi dza mutshimbidzi

- ◆ Wekishopo iyi i sedzesa kha u funza magudiswa a Mbekanyamushumo ya Mbalo a Kotara ya 1 Vhege ya 10 na Kotara ya 2 Vhege ya 1-3.
- ◆ Kha vha talutshedze uri zwo sedzeswaho kha Kotara ya 1 Vhege ya 10 ndi u shuma na Data.
- ◆ Kha vha rumele vhashelamulenzhe kha masiatari a 136-137 a *Nyendedzi ya Divhaipfi*.
- ◆ Kha vha humbele vhashelamulenzhe u shuma nga zwigwada u fhedzisa **Nyito ya 2**. Kha vha humbele muthu muthihi u bva tshigwadani tshinwe na tshinwe uri a kovhane mihumbulo yavho.

Wekishopo iyi i sedzesa kha u funza magudiswa a Mbekanyamushumo ya Mbalo a tevhelaho: Kotara ya 1 Vhege ya 10 na Kotara ya 2 Vhege ya 1-3. Dzulo ili li sedzesa kha Kotara ya 1 Vhege ya 10: U shuma na Data.

Manweledzo a magudiswa a Kotara ya 1: U shuma na Data

Kha vha sedze kha Sia la Magudiswa la u shuma na Data kha masiatari a 136-137 a *Nyendedzi ya Divhaipfi*.



Nyito ya 2

Tshigwadani tshavho, kha vha haseledze:

1. Ndi magudiswa afhio a u shuma na Data o katelwaho kha Kotara ya 1?

2. Mbekanyamushumo ya Mbalo i engedza zwifhio kha magudiswa a bvaho kha TSHIPHOKHALI?

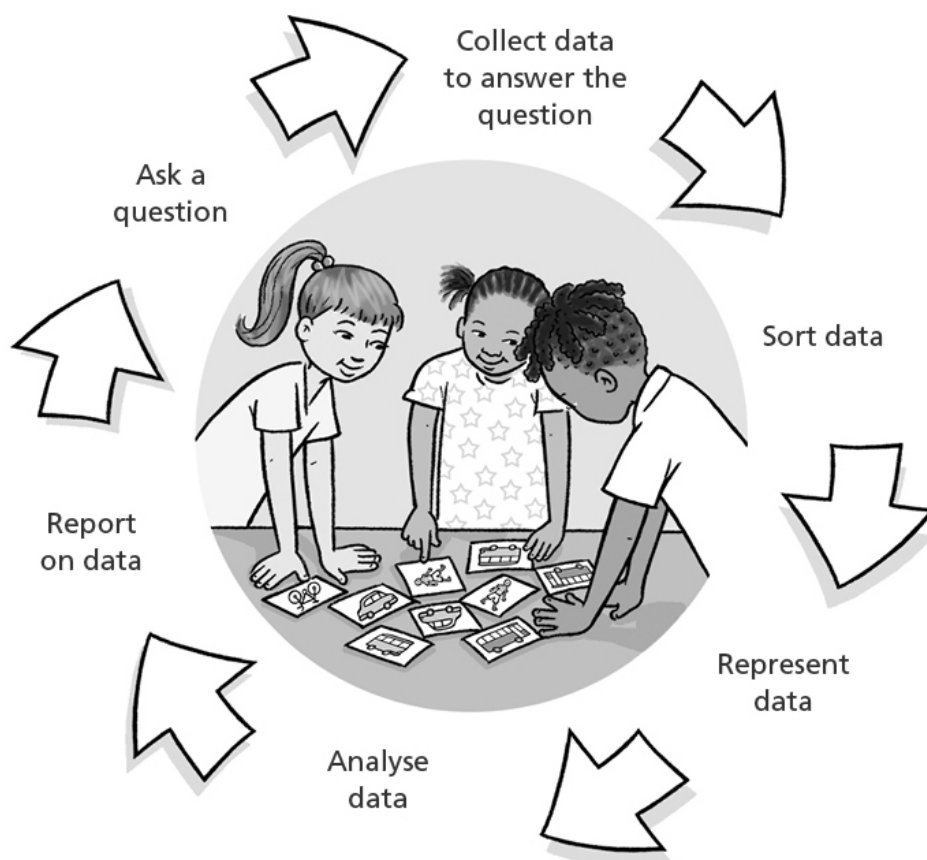
U shuma na data

Notsi dza mutshimbidzi

- ◆ Kha vha thome dzulo ili nga nyito i tevhelaho.
Kha vha humbele vhashelamulenzhe vho ambaraho mateki uri vha ime vhothe fhethu huthihi.
Kha vha humbele vhashelamulenzhe vho ambaraho maphashane uri vha ime fhethu huthihi.
Kha vha humbele vhashelamulenzhe vho ambaraho zwienda zwa migo uri vha ime fhethu huthihi.
Kha vha humbele vhashelamulenzhe vho ambaraho zwienda zwo valeaho uri vha ime fhethu huthihi.
(VHA DZHIELE NZHELE: Kha vha tshintshe iyi nyito u ya nga khalañwaha na lushaka lwa zwienda zwo ambarwaho nga vhashelamulenzhe.)
Musi vhashelamulenzhe vhe nga zwigwada, kha vha haseledze mbudziso dzi tevhelaho:
Ndi tshigwada tshifhio tshi re na vhathu vhanzhi?
Ndi tshigwada tshifhio tshi re na vhathu vhatuku?
Ndi zwigwada zwifhio zwi re na tshivhalo tshi edanaho tsha vhathu khazwo?

- ◆ Explain that what participants have done is to sort/classify according to one particular attribute that is the same and that this is a very important part of Data Handling. Emphasise the importance of sorting and classification in Grade R.
- ◆ Discuss the kinds of sorting activities that learners could do in Grade R.
- ◆ PPT: Data Handling cycle and summarise content from the *Participant's Workbook*.
- ◆ Discuss each of the six steps in the Data Handling cycle.

In this session, you will learn about the Data Handling cycle as a process for solving problems. Data Handling in Grade R focuses on collecting, sorting, organising, representing and analysing information about people or things. The main reason we collect data is to answer a question or to solve a problem.

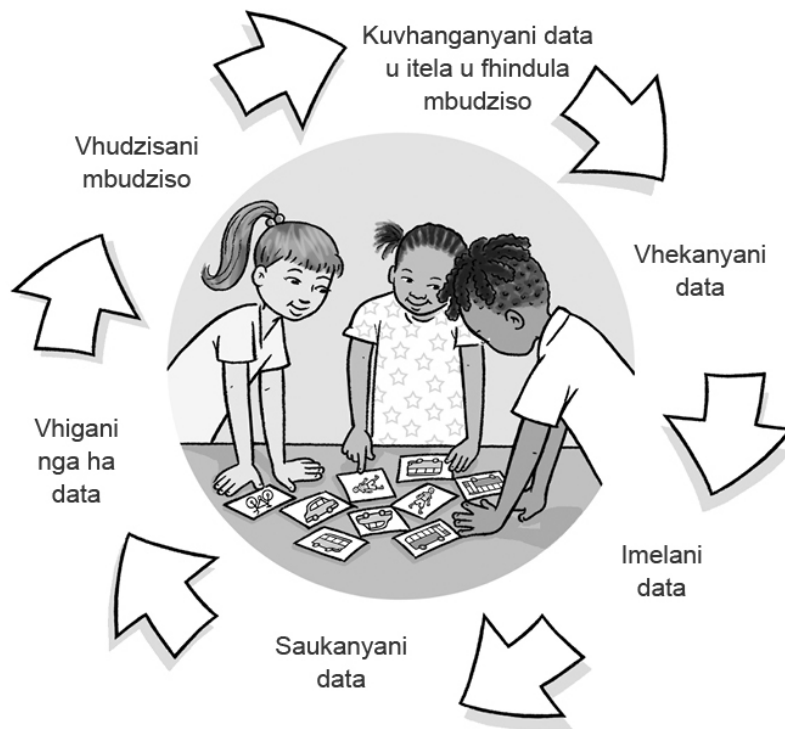


People often refer to the process of Data Handling as a cycle because the events or activities that are involved are repeated in the same sequence for each new question that is to be answered.

1. **Ask a question:** Learners decide what they want to find out about. This is the reason for collecting specific data or information.
2. **Collect data:** Learners decide they want to collect data based on the question or problem.

- ◆ Kha vha tšalutshedze uri zwe vhashelamulenzhe vha ita ndi u vhekanya/u khethekanya u ya nga tshidodombedzwa tshithihi tshi fanaho na uri izwi ndi tshipiḁa tsha ndeme tsha u shuma na Data.
- ◆ Kha vha ombedzele ndeme ya u vhekanya na u khethekanya kha Gireidi ya Ṽ.
- ◆ Kha vha haseledze tshakha dza nyito dza u vhekanya dzine vhagudi vha nga ita kha Gireidi ya Ṽ.
- ◆ PPT: Mutevheṭhanḁu wa U shuma na Data na u nweledza magudiswa a bvaho kha *Bugu ya Mushumo ya Vhashelamulenzhe*.
- ◆ Kha vha haseledze liṅwe na liṅwe ḁa maga a rathi kha Mutevheṭhanḁu wa U shuma na Data.

Kha dzulo ḁi, vha ḁo guda nga Mutevheṭhanḁu wa U shuma na Data sa maitele a u tandulula thaidzo. U shuma na Data kha Gireidi ya Ṽ ho sedzesa kha u kuvhanganya, u vhekanya, u dzudzanya, u imela na u sengulusa mafhungo nga vhathu kana zwithu. Muhumbulo muhulwane wa musi ri tshi kuvhanganya data ndi u itela u fhindula mbudziso kana u tandulula thaidzo.



Vhathu vha anzela u amba nga maitele a U shuma na Data sa mutevheṭhanḁu nga uri zwiwo kana nyito dzo katelwaho dzi a dovhololwa nga u tevhekana hu fanaho kha mbudziso iṅwe na iṅwe ntswa ine ya ḁo fhindulwa.

1. **U vhudzisa mbudziso:** Vhagudi vha dzhia tsheo ya zwine vha ṭoḁa u wanulusa nga hazwo. Itshi ndi tshiitisi tsha u kuvhanganya data kana mafhungo o tiwaho.
2. **U kuvhanganya data:** Vhagudi vha dzhia tsheo ya uri vha khou ṭoḁa u kuvhanganyisa hani data zwo ḁisendeka kha mbudziso kana thaidzo.

3. **Sort data:** Learners organise and sort data into groups according to the attribute. In order to answer questions and decide how to represent data that have been collected, decisions need to be made about how things could be sorted.
4. **Represent data:** Learners explore different ways of showing or displaying the information they have collected.
5. **Analyse data:** Learners describe and compare the data that is represented.
6. **Report on data:** Learners answer the question that was initially asked.

Objects can be sorted and classified (grouped) according to their similarities, such as colour, animals, plants. The more learners know about the properties of objects, and their similarities and differences, the more they are able to form different classification groups.



Video 1

Activity Guide: Term 1, Week 10, Day 4 #5-9 (pages 180-183)

Watch the video of the class creating and analysing a pictograph to represent the weather.

Discuss how the teacher presents each of the steps in the lesson. Notice the types of questions she uses and how she reinforces the use of correct vocabulary.

Facilitator's notes

- ◆ Highlight the importance of using the same size pieces of paper, starting at the bottom and placing each piece of paper right against the previous one. Make sure there is enough height for the longest column.
- ◆ PPT: Photos of correctly placed pieces of paper in a pictograph as well as examples of incorrectly structured pictographs.
After the activity, explain that:
Pictographs – always organise the data from the bottom to the top.
Construct a grid so that there is a one-to-one correspondence between each item in the grid. This makes it easier for learners to compare the quantities in each column.
- ◆ Reflect on the different steps of the Data Handling cycle the participants have gone through.
- ◆ Refer participants to **Activity 3**.

3. **U vhekanya data:** Vhagudi vha dzudzanya na u vhekanya data nga zwigwada u ya nga tshiṭalusi. U itela u fhindula mbudziso na u dzhia tsheo ya uri data ye vha kuvhanganya i ḁo imelelwa hani, tsheo dzi fanela u dzhiwa nga uri zwithu zwi nga vhekanywa hani.
4. **U imela data:** Vhagudi vha tandula nḁila dzo fhambanaho dza u sumbedza kana u ṭana mafhungo e vha kuvhanganya
5. **U saukanya data:** Vhagudi vha ṭalusa na u vhambedza data yo imelelwaho.
6. **U vhiga nga data:** Vhagudi vha fhindula mbudziso ye ya vhudziswa mathomoni.

Zwithu zwi nga vhekanywa na u khethekanywa (u vhewa nga zwigwada) u ya nga u fana hazwo, u fana na muvhala, phukha, zwimela. Musi vhagudi vha tshi ḁivha zwinzhi nga vhunzani ha zwithu, na u fana na u fhambana hazwo, vha vha vha tshi kona u vhumba zwigwada zwa khethekanyo dzo fhambanaho.



Vidiyo ya 1

Nyendedzi ya Nyito: Kotara ya 1, Vhege ya 10, Duvha ḁa 4 #5-9 (masiṭari a 180-183)

Kha vha ṭalele vidiyo ya kilasi i no khou sika na u saukanya girafu ya zwifanyiso u itela u imela mutsho.

Kha vha haseledze uri mugudisi u khou ṅetshedza hani ḁiga ḁiṅwe na ḁiṅwe kha ngudo. Kha vha limuwe tshakha dza mbudziso dzine a khou dzi shumisa na uri u khwaṭhisedza hani tshumiso ya ḁivhaipfi yo teaho.

Notsi dza mutshimbidzi

- ◆ Kha vha sumbedze ndeme ya u shumisa zwipiḁa zwa bammbiri zwa saizi i eḁanaho, vha tshi thoma fhasi na u vhea tshipiḁa tshiṅwe na tshiṅwe tsha bammbiri nṭha ha tsho fhiraho. Vha vhone uri hu na vhulapfu ho teaho u itela kholumu ndapfusa.
- ◆ PPT: Zwifanyiso zwa zwipiḁa zwa bammbiri zwo vhwaho nga nḁila yo teaho kha girafu ya zwifanyiso khathihi na tsumbo dza girafu ya zwifanyiso dzo vhekanywaho nga nḁila i si yone. Nga murahu ha nyito, kha vha ṭalutshedze uri:
Girafu ya zwifanyiso- kha vha dzulele u dzudzanya data u bva fhasi u ya nṭha.
Kha vha vhumbe giridi u itela uri hu kone u vhambedzea tshithu nga tshithu vhukati ha tshithu tshiṅwe na tshiṅwe tshi re kha giridi. Izwi zwi leludzela vhagudi u vhambedza zwivhalo kha kholumu iṅwe na iṅwe.
- ◆ Kha vha ambe nga maga o fhambanaho a Mutevheṭhanḁu wa U shuma na Data we vhashelamulenzhe vha shuma ngawo.
- ◆ Kha vha rumele vhashelamulenzhe kha **Nyito ya 3.**

This next activity will take you through the six stages of the Data Handling cycle.



Activity 3

Take the following animal counters from the Maths Programme *Resource Kit*: three ducks, two chickens and one horse.

1. Consider this question: Are there more ducks or more chickens in the group?
2. Sort and collect data: Organise your animals into groups and then discuss the following with a partner:
 - ◆ Can you see if there are more ducks than chickens now?
 - ◆ How can you check?
3. Represent data: Turn to the grid on page 20. Place animals of the same kind one above the other in a column starting at the bottom of the grid.
4. Analyse and report on data: Look at your columns and discuss with a partner:
 - ◆ Are there more ducks or more chickens? How do you know?
 - ◆ Which column has more animals?
 - ◆ Which column has fewer animals?
 - ◆ Are there the same number of any kind of animal?

Refer to pages 184–187 of *Activity Guide: Term 1* and discuss how this activity is introduced to learners. Refer to pages 212–219 of the *Concept Guide* to read more about Data Handling. Notice the appropriate questions and vocabulary related to the teaching and learning of Data Handling in Grade R.

Nyito heyi i tevhelaho i do vha divhadza nga maga a rathi a Mutevhetshandu wa U shuma na Data.



Nyito ya 3

Kha vha dzhie zwithu zwa u vhalela ngazwo zwa phukha zwi tevhelaho u bva kha *Khithi ya Zwishumiswa* ya Mbekanyamushumo ya Mbalo: masekwa mararu, khuhu mbili na bere nthihi.

1. Vha dzhiele nzhele mbudziso iyi: Hu na masekwa manzhi kana khuhu nnzhi tshigwadani?
2. U vhekanya na u kuvhanganya data: Kha vha dzudzanye phukha dzavho nga zwigwada vha koneha u haseledza zwi tevhelaho na mufarakani:
 - ◆ Vha khou kona u vhona arali hu na masekwa manzhi u fhira khuhu zwino?
 - ◆ Vha nga zwi tola hani?
3. U imela data: Kha vhaye kha giridi i re kha masiatari la 21. Kha vha vhee phukha dza lushaka lu fanaho nthihi nthaha ha inwe kha kholumu vha tshi thoma fhasi kha giridi.
4. Kha vha saukanye na u vhiga nga data: Kha vha lavhelese kha kholumu dzavho vha haseledze na mufarakani:
 - ◆ Hu na masekwa manzhi kana khuhu nnzhi? Vha zwi divha hani?
 - ◆ Ndi kholumu ifhio i re na phukha nnzhi?
 - ◆ Ndi kholumu ifhio i re na phukha thukhu?
 - ◆ Hu na tshivhalo tshi fanaho tsha lushaka luinwe na luinwe lwa phukha?

Kha vha sedze masiatari a 184–187 a *Nyendedzi ya Nyito: Kotara ya 1* vha haseledze uri nyito iyi i divhadzwa hani kha vhagudi. Kha vha sedze masiatari a 212–219 a *Nyendedzi ya Divhaipfi* u itela u vhala zwinzhi nga U shuma na Data. Vha dzhiele nzhele mbudziso dzo teaho na divhaipfi i re na vhushaka na u funza na u guda nga U shuma na Data kha Gireidi ya T.

Session 2: Numbers, Operations and Relationships

1 hour

Facilitator's notes

- ◆ Explain that the focus of Term 2 Weeks 1 and 2 is Numbers, Operations and Relationships. This session aims to deepen participants' knowledge and understanding of number and how it is taught and learnt in Term 2.
- ◆ Refer participants to pages 114–123 of the *Concept Guide*.
- ◆ Have participants work in groups to complete **Activity 4**. Ask one person from each group to share their ideas.

The focus of Term 2 Weeks 1 and 2 is Numbers, Operations and Relationships.

Term 2 Content overview: Numbers, Operations and Relationships



Activity 4

Refer to the Numbers, Operations and Relationships Content Area on pages 114–123 of the *Concept Guide*.

1. What concepts are covered in Term 2?

2. What does the Maths Programme add to the content of CAPS?

Activity Guide: Term 2

Facilitator's notes

- ◆ Hand out copies of *Activity Guide: Term 2* to all participants.
- ◆ Ask participants to look at the Contents page and pages 6–17 to see that the 'Introduction' in Term 2 is the same as in Term 1.
- ◆ Refer participants to 'Content overview: Term 2' (pages 18–21).
- ◆ Participants complete **Activity 5**.

Dzulo la 2: Nomboro, Tswayo na Vhushaka Awara 1

Notsi dza mutshimbidzi

- ◆ Kha vha talutshedze uri Kotara ya 2 Vhege ya 1 na 2 dzo sedzesa kha Nomboro, Tswayo na Vhushaka. Dzulo ili li toda u khwaṭhisa nḁivho na u pfesesa nomboro ha vhashelamulenzhe na uri zwi funzwa na u gudwa hani kha Kotara ya 2.
- ◆ Kha vha rumele vhashelamulenzhe kha masiaṭari a 114–123 a *Nyendedzi ya Divhaipfi*.
- ◆ Kha vha ri vhashelamulenzhe vha shume nga zwigwada u fhedzisa **Nyito ya 4**. Kha vha humbele muthu muthihi u bva tshigwadani tshinwe na tshinwe uri vha kovhane mihumbulo yavho.

Kotara ya 2 Vhege ya 1 na 2 dzo sedzesa kha Nomboro, Tswayo na Vhushaka.

Manweledzo a magudiswa a Kotara ya 2: Nomboro, Tswayo na Vhushaka



Nyito ya 4

Kha vha sedze Sia la Magudiswa la Nomboro, Tswayo na Vhushaka kha masiaṭari a 114–123 a *Nyendedzi ya Divhaipfi*.

1. Ndi divhaipfi ifhio yo katelwaho kha Kotara ya 2?

2. Mbekanyamushumo ya Mbalo i engedza zwifhio kha magudiswa a TSHIPHOKHALI?

Nyendedzi ya Nyito: Kotara ya 2

Notsi dza mutshimbidzi

- ◆ Kha vha phakhele khophi dza *Nyendedzi ya Nyito: Kotara ya 2* kha vhashelamulenzhe vhoṭhe.
- ◆ Kha vha humbele vhashelamulenzhe uri vha lavhelese kha siaṭari la Zwi re ngomu na masiaṭari a 6–17 u vhona uri 'Marangaphanda' kha Kotara ya 2 a fana na a kha Kotara ya 1.
- ◆ Kha vha rumele vhashelamulenzhe kha 'Manweledzo a magudiswa: Kotara ya 2' (masiaṭari a 18–21).
- ◆ Vhashelamulenzhe vha fhedzisa **Nyito ya 5**.

Activity Guide: Term 2 provides teachers with weekly suggestions for teaching and learning Mathematics.

Look at the Contents page and pages 6–17 of *Activity Guide: Term 2*. You will see that the ‘Introduction’ in Term 2 is the same as in Term 1.

In Activity 4 you identified the number concepts to be covered in Term 2. In Activity 5 you will make links between these concepts and the New knowledge for the first two weeks of *Activity Guide: Term 2*.



Activity 5

Refer to ‘Content overview: Term 2’ (*Activity Guide: Term 2*, pages 18–21).

1. What new knowledge is introduced to learners in the Numbers, Operations and Relationships Content Area?

2. Go back to Activity 4 and highlight or circle the concepts covered.

Understanding numbers

Facilitator’s notes

- ◆ Review the routine that the participants have used to introduce numbers 1, 2 and 3 to learners in their classes.
- ◆ Ask participants to reflect on their experiences in the classroom and to complete **Activity 6**.
- ◆ Explain that in Term 2 they will be focusing on numbers 4 and 5, using this same routine to introduce the numbers.
- ◆ Read through the whole class activities that focus on number 4 in Week 1: *Activity Guide: Term 2*: page 24 (Day 1 #4), page 26 (Day 2 #5), page 28 (Day 3 #4), page 30 (Day 4 #4 and Day 5 #4).

In Term 1, the numbers 1, 2 and 3 were taught. You used the same routine for each number taught, adding one more to the number each time a new number was introduced. In Term 2 Week 1, the focus is on the concept of number again. Learners are introduced to the number 4, using the same routine as for numbers 1, 2 and 3.

Nyendedzi ya Nyito: Kotara ya 2 i netshedza vhagudisi madzinginywa a vhege nga vhege a u funza na u guda Mbalo.

Kha vha lavhelese siaṭari ɔa Zwi re ngomu na masiaṭari a 6–17 a *Nyendedzi ya Nyito: Kotara ya 2*. Vha ḁo vhona uri ‘Marangaphanda’ a Kotara ya 2 a fana na a Kotara ya 1.

Kha Nyito ya 4 vho topola ḁivhaipfi ya nomboro ine ya ḁo kwamiwa kha Kotara ya 2. Kha Nyito ya 5 vha ḁo ita vhuṭumani vhukati ha ḁivhaipfi iyi na Nḁivho ntswa kha vhege mbili dza u thoma dza *Nyendedzi ya Nyito: Kotara ya 2*.



Nyito ya 5

Kha vha sedze kha ‘Manweledzo a magudiswa: Kotara ya 2’ (*Nyendedzi ya Nyito: Kotara ya 2*, masiaṭari a 18–21).

1. Ndi nḁivho ntswa ifhio i no khou ḁivhadzwa vhagudi kha Sia ɔa Magudiswa ɔa Nomboro, Tswayo na Vhushaka?
-

2. Kha vha humele murahu kha Nyito ya 4 vha swaye kana u tingeledza ḁivhaipfi yo kwamiwaho.

U pfesesa nomboro

Notsi dza mutshimbidzi

- ◆ Kha vha sedzuluse nḁowelo ye vhashelamulenzhe vha i shumisa u ḁivhadza nomboro 1, 2 na 3 kha vhagudi kiɔasini dzavho.
- ◆ Kha vha humbele vhashelamulenzhe u amba nga tshenzhemo dzavho kiɔasini na u fhedzisa **Nyito ya 6**.
- ◆ Kha vha ɔalutshedze uri kha Kotara ya 2 vha ḁo sedzesa kha nomboro 4 na 5, vha tshi shumisa nḁowelo iyi i fanaho u ḁivhadza nomboro.
- ◆ Kha vha vhale mishumo ya kiɔasi yoṭhe ine ya sedza kha nomboro 4 kha Vhege ya 1: *Nyendedzi ya Nyito: Kotara ya 2*: siaṭari ɔa 25 (ḁuvha ɔa 1 #4), siaṭari ɔa 27 (ḁuvha ɔa 2 #5), siaṭari ɔa 29 (ḁuvha ɔa 3 #4), siaṭari ɔa 31 (ḁuvha ɔa 4 #4 na ḁuvha ɔa 5 #4).

Kha Kotara ya 1, nomboro 1, 2 na 3 dzo funzwa. Vho shumisa nḁowelo i fanaho kha nomboro inwe na inwe yo funzwaho, vha tshi engedza nthihi kha nomboro tshifhinga tshoṭhe musi vha tshi ḁivhadza nomboro ntswa. Kha Kotara ya 2 Vhege ya 1, ho sedzeswa kha ḁivhaipfi ya nomboro hafhu. Vhagudi vha ḁivhadzwa nomboro 4, vha tshi shumisa nḁowelo i fanaho sa kha nomboro 1, 2 na 3.



Activity 6

Refer to the whole class activities that focus on number 4 in Week 1: *Activity Guide: Term 2*: page 25 (Day 1 #4), page 27 (Day 2 #5), page 29 (Day 3 #4), page 31 (Day 4 #4 and Day 5 #4).

1. Discuss how the number '4' is introduced.

2. Think about your own classroom practice and how this routine has been working so far. Complete the table.

Activity	What worked well?	What did not work so well?
Telling the story and building up the number frieze		
Dramatising the story		
Collecting objects for the maths area		
Matching objects to pictures, dot cards, number symbols and number words		
Using the <i>Poster Book</i>		



Nyito ya 6

Kha vha sedze kha mishumo ya kilasi yothe ine ya sedzesa kha nomboro 4 kha Vhege ya 1: *Nyendedzi ya Nyito: Kotara ya 2: siaṭari la 24 (Duvha la 1 #4), siaṭari la 26 (Duvha la 2 #5), siaṭari la 28 (Duvha la 3 #4), siaṭari la 30 (Duvha la 4 #4 and Duvha la 5 #4).*

1. Kha vha haseledze uri nomboro 4 i divhadzwa hani.

2. Kha vha humbule nga ndowelo ya kilasirumu yavho na uri ndowelo iyo i khou shuma hani u swika zwino. Kha vha fhedzise thebuḽu.

Nyito	Ndi zwifhio zwe zwa shuma zwavhuḽi?	Ndi zwifhio zwe zwa si shume zwavhuḽi?
U anetshela tshiṭori na u fhaṭa tshati ya luvhondoni ya mbalo		
U ita tshiṭori sa litambwa		
U kuvhanganya zwithu u itela fhethu ha mbalo		
U fanyisa zwithu na zwifanyiso, magaraṭa a tshithoma, zwiḡa zwa nomboro na ipfinomboro		
U shumisa <i>Bugu ya Dziphositara</i>		

Maths vocabulary

Facilitator's notes

- ◆ Discuss how the participants model using the correct maths vocabulary in the classroom.
- ◆ Point out that this is an important part of the **interaction principle**, and that by using it themselves, they encourage learners to use maths vocabulary.

Part of learning new concepts involves new language. Learners need the vocabulary to talk and think about maths concepts (**interaction principle**). You can encourage learners to use maths vocabulary by using it yourself when you speak to them about maths concepts and by rephrasing what they say into maths language.

Money

Facilitator's notes

- ◆ Discuss what learners in Grade R need to learn about money. Emphasise that the focus in Grade R is on developing an awareness of what South African coins look like, but not on the value of the coins.
- ◆ Invite participants to share the kinds of activities they provide in their Grade R classrooms to help learners understand the purpose of money in their everyday lives.
- ◆ After **Activity 7**, discuss the kinds of open-ended questions that teachers can ask to help learners learn the purpose of money such as:
What do we use money for?
Do we always pay with money? How else could we pay for things that we buy?

In Term 2 Week 2 learners are introduced to money. Learners in Grade R are developing an awareness about the features of money and they need opportunities to explore what real South African coins look like.

Activity 7 focuses on helping learners to recognise the similarities and differences between coins: their size, shape and the animals on the coins.



Activity 7



1. What questions could you ask learners to help them recognise the different features of these coins?

Divhaipfi ya Mbalo

Notsi dza mutshimbidzi

- ◆ Kha vha haseledze uri vhashelamulenzhe vha shumisa hani sa tsumbo divhaipfi yo teaho ya mbalo ngomu kilasini.
- ◆ Kha vha sumbedze uri izwi ndi tshipiḁa tsha ndeme tsha **mulayo wa mvuvhano**, na uri nga u i shumisa vhone vhaṅe, vha khou tuṅuwedza vhagudi u shumisa divhaipfi ya mbalo.

Tshipiḁa tsha u guda divhaipfi ntswa tshi katela luambo luswa. Vhagudi vha ṱoḁa divhaipfi u amba na u humbula nga divhaipfi ya mbalo (**mulayo wa mvuvhano**). Vha nga tuṅuwedza vhagudi u shumisa divhaipfi ya mbalo nga u i shumisa vhone vhaṅe musi vha tshi amba na vhagudi nga divhaipfi ya mbalo na nga u lulamisa zwine vhagudi vha amba vha tshi zwi vhea nga luambo lwa mbalo.

Tshelede

Notsi dza mutshimbidzi

- ◆ Kha vha haseledze zwine vhagudi va re kha Gireidi ya Ṽ vha fanela u guda nga tshelede. Kha vha ombedzele uri zwo sedzwaho kha Gireidi ya Ṽ ndi u bvedza u dzhiela nzhele ya zwine mangwende a Afrika Tshipembe a vhonealisa zwone, hu si kha ndeme ya mangwende.
- ◆ Kha vha rambe vhashelamulenzhe u kovhana tshakha dza nyito dzine vha netshedza ngomu kilasini dza Gireidi ya Ṽ u thusa vhagudi u pfesesa ndivho ya tshelede kha vhutshilo havho ha ḁuvha liṅwe na liṅwe.
- ◆ Nga murahu ha **Nyito ya 7**, kha vha haseledze tshakha dza mbudziso dzo ṱandavhuwaho dzine vhagudisi vha nga vhudzisa u itela u thusa vhagudi u guda ndivho ya tshelede u fana na:
Ri shumisa tshelede u ita mini?
Ri badela nga tshelede tshifhinga tshoṱhe? Ndi ifhio inwe ṅdila ine ri nga badela zwithu zwine ra renga?

Kha Kotara ya 2 Vhege ya 2 vhagudi vha divhadzwa tshelede. Vhagudi vha re kha Gireidi ya Ṽ vha khou bvedza u dzhiela nzhele ha mbonalo ya tshelede nahone vha ṱoḁa zwikhala zwa u tandula uri mangwende a vhukuma a Afrika Tshipembe a tou vha hani.

Nyito ya 7 i sedzesa kha u thusa vhagudi u divha zwi fanaho na zwo fhambanaho kha mangwende: saizi yao, tshivhumbeo na phukha dzi re kha mangwende.



Nyito ya 7



1. Ndi mbudziso dzifhio dzine vha nga vhudzisa vhagudi u itela u vha thusa u divha mbonalo dzo fhambanaho dza mangwende aya?

2. What new vocabulary will you introduce?

Facilitator's notes

- ◆ Refer participants to the whole class activities and small group activities on pages 40–51 of *Activity Guide: Term 2*.
- ◆ Have participants work in groups to complete **Activity 8**. Ask one person from each group to report back on their discussion.
- ◆ Draw attention to the money templates (*Activity Guide: Term 2*, pages 216–217). Ask for suggestions of how these could be used.

Learners first need to be able to identify and name coins before they are ready to understand their value.

Learners need to be exposed to the purpose of money. Teachers can help learners understand that money is used to buy things like food and clothes and to do different things like travelling by taxi or bus. Expose learners to money and its purpose by setting up a play-shop with pretend coins and notes and items that can be bought.

Refer to the whole class activities and small group activities that focus on money on pages 40–51 of *Activity Guide: Term 2*. In your group, complete Activity 8.



Activity 8

1. What money concepts are being taught and learnt in the whole class activities?

Recognising and matching South African coins, sorting according to colour and size.

2. How are learners encouraged to explore the purpose of money?

The shopping table teaches learners that we pay money for items.

3. How does the teacher consolidate this new knowledge in the small group activities?

Sorting and matching coins, drawing pictures of the coins.

2. Ndi ðivhaipfi ntswa ifhio ine vha ðo i ðivhadza?

Notsi dza mutshimbidzi

- ◆ Kha vha rumele vhashelamulenzhe kha mishumo ya kilasi yothe na nyito dza zwigwada zwiṭuku kha masiaṭari a 40–51 a *Nyendedzi ya Nyito: Kotara ya 2*.
- ◆ Kha vha ri vhashelamulenzhe vha shume nga zwigwada u fhedzisa **Nyito ya 8**. Kha vha humbele muthu muthihi u bva tshigwadani tshinwe na tshinwe u vhiga murahu nga khaseledzo yavho.
- ◆ Kha vha humbudzwe nga themphuleithi dza tshelede (*Nyendedzi ya Nyito: Kotara ya 2*, masiaṭari a 216–217). Kha vha humbele madzinginywa a uri izwi zwi nga shumiswa hani.

Vhagudi vha fanela u ranga u kona u topola na u bula mangwende phanḁa ha musi vha tshi nga lugela u pfesesa ndeme yao.

Vhagudi vha fanela u ðivhadzwa nga mushumo wa tshelede. Vhagudisi vha nga thusa vhagudi u pfesesa uri tshelede i shumiswa u renga zwithu u fana na zwiḽiwa na zwiambaro na u ita zwithu zwo fhambanaho u fana na u tshimbila nga thekhisi kana bisi. Kha vha ðivhadze vhagudi tshelede na mushumo wayo nga u dzudzanya vhengele ḽa mutambo na mangwende a kholekhole na tshelede ya bammbiri na zwithu zwine zwi nga rengwa.

Kha vha sedze nyito dza kilasi yothe na nyito dza zwigwada zwiṭuku dzine dza sedzesa kha tshelede kha masiaṭari a 40–51 a *Nyendedzi ya Nyito: Kotara ya 2*. Tshigwadani tshavho, kha vha fhedzise Nyito ya 8.



Nyito ya 8

1. Ndi ðivhaipfi ya tshelede ifhio ine ya khou funzwa na u gudwa kha nyito dza kilasi yothe?

U ðivha na u fanyisa mangwende a Afrika Tshipembe, u vhekanya u ya nga muvhala na saizi.

2. Vhagudi vha ṭuṭuwedzwa hani u tandula mushumo wa tshelede?

Thebuḽu ya u renga i funza vhagudi uri ri badela tshelede u itela u wana zwithu.

3. Mugudisi u pfumbisa hani iyi ndivho ntswa kha nyito dza zwigwada zwiṭuku?

U vhekanya na u fanyisa mangwende, u ola zwifanyiso zwa mangwende.

Session 3: Space and Shape (Geometry)

1 hour

Facilitator's notes

- ◆ This session extends the discussion on Space and Shape (Geometry) from Workshop 3 and should not take longer than the suggested time as this is not new knowledge.
- ◆ Explain that the focus of Term 2 Week 3 is Space and Shape (Geometry).
- ◆ Refer participants to pages 126–131 of the *Concept Guide*.
- ◆ Have participants work in groups to complete **Activity 9**. Ask one person from each group to share their ideas.

The focus of Term 2 Week 3 is Space and Shape (Geometry).

Term 2 Content overview: Space and Shape (Geometry)

Refer to pages 126–131 of the *Concept Guide*.



Activity 9

1. What Space and Shape (Geometry) concepts are covered in Term 2?

2. What does the Maths Programme add to the content of CAPS?

Triangles

Facilitator's notes

- ◆ Refer participants to Day 2 #4 on page 58 of *Activity Guide: Term 2*.
- ◆ Ask participants to complete **Activity 10** in their small groups. Participants share their responses in the large group.
- ◆ Discuss the importance of giving learners opportunities to sort and group different shapes to help them learn about the properties of triangles, e.g. the number of sides, whether the sides are straight or curved, and the number of corners.

In Term 2 Week 3, learners continue their exploration of two-dimensional shapes as they describe, sort and compare them. In this session you will deepen your understanding of the properties of triangles.

Dzulo la 3: Tshikhala na Tshivhumbeo (Dzhometiri)

Awara 1

Notsi dza mutshimbidzi

- ◆ Dzulo ili li engedza khaseledzo nga Tshikhala na Tshivhumbeo (Dzhometiri) u bva kha Wekishopo ya 3 nahone a lo ngo fanela u lapfa u fhira tshifhinga tsho dzinginywaho vhunga hu si ndivho ntswa.
- ◆ Kha vha talutshedze uri Kotara ya 2 Vhege ya 3 yo sedzesa kha Tshikhala na Tshivhumbeo (Dzhometiri).
- ◆ Kha vha rumele vhashelamulenzhe kha masiatari a 126–131 a *Nyendedzi ya Divhaipfi*.
- ◆ Kha vha ri vhashelamulenzhe vha shume nga zwigwada u fhedzisa **Nyito ya 9**. Kha vha humbele muthu muthihi u bva tshigwadani tshinwe na tshinwe uri a kovhane mihumbulo yavho.

Kotara ya 2 Vhege ya 3 yo sedzesa kha Tshikhala na Tshivhumbeo (Dzhometiri).

Manweledzo a magudiswa a Kotara ya 2: Tshikhala na Tshivhumbeo (Dzhometiri)

Kha vha sedze masiatari a 126–131 a *Nyendedzi ya Divhaipfi*.



Nyito ya 9

1. Ndi divhaipfi ifhio ya Tshikhala na Tshivhumbeo (Dzhometiri) yo katelwaho kha Kotara ya 2?

2. Ndi zwifhio zwine Mbekanyamushumo ya Mbalo ya engedza kha magudiswa a TSHIPHOKHALI?

Dzithofunderaru

Notsi dza mutshimbidzi

- ◆ Kha vha rumele vhashelamulenzhe kha Duvha la 2 #4 kha siatari la 59 la *Nyendedzi ya Nyito: Kotara ya 2*.
- ◆ Kha vha humbele vhashelamulenzhe u fhedzisa **Nyito ya 10** zwigwadani zwavho zwiṭuku. Vhashelamulenzhe vha nea phindulo dzavho tshigwadani tshihulwane.
- ◆ Kha vha haseledze ndeme ya u nea vhagudi zwikhala zwa u vhekanya na u vhea nga zwigwada zwivhumbeo zwo fhambanaho u itela u vha thusa u guda nga vhunzani ha dzithofunderaru, sa tsumbo, tshivhalo tsha masia, arali masia a tswititi kana o kheva, na tshivhalo tsha dzikhuḁa.

Kha Kotara ya 2 Vhege ya 3, vhagudi vha bvela phanda na u tandula havho zwivhumbeo zwa mielo mivhili zwenezwi vha tshi zwi talusa, u zwi vhekanya na u zwi vhambedza. Kha dzulo ili vha do khwaṭhisa u pfesesa havho vhunzani ha dzithofunderaru.

Refer to Day 2 #4 on page 58 of *Activity Guide: Term 2* and then complete Activity 10 in your group.



Activity 10

'How is the triangle different to other shapes in the classroom?' What answers would you expect from your learners?

It has three sides/lines/corners.

When learners are given opportunities to sort and group different shapes, they need to focus on the properties of the shapes to make their decisions, e.g. the number of sides, whether the sides are straight or curved and the number of corners.

Facilitator's notes

- ◆ Explain that the Maths Programme uses stories to teach maths concepts in a meaningful way.
- ◆ Dramatise the story, *They pulled and they pulled*, from Week 3 (*Activity Guide: Term 2*, pages 62 and 198).
- ◆ Ask participants to complete **Activity 11** in their groups.
- ◆ As each group reports back, list the questions they suggest on flipchart paper.

Stories are a great way to introduce shape concepts to learners. Listen to the story, *They pulled and they pulled*, from Week 3 (*Activity Guide: Term 2*, pages 62 and 198) as told by your facilitator and then complete Activity 11 in your group.



Activity 11

1. What questions could you ask learners to help them learn more about the properties of triangles?

Examples:

What can you tell me about the lines/corners/points of this shape?

How do you know it is a triangle?

What is the same/different about the triangle and the square?

Kha vha sedze kha Duvha la 2 #4 kha siaṭari la 59 la *Nyendedzi ya Nyito: Kotara ya 2* vha koneha u fhedzisa Nyito ya 10 tshigwadani tshavho.



Nyito ya 10

‘Thofunderaru yo fhambana hani na zwiṅwe zwivhumbeo zwi re ngomu kiḷasini?’ Ndi phindulo dzifhio dzine vha nga lavhelela u bva kha vhagudi vhavho?

I na masia mararu/mitalo/dzikhuda.

Musi vhagudi vho newa zwikhala zwa u vhekanya na u vhea zwivhumbeo zwo fhambanaho nga zwigwada, vha fanela u sedzesa kha vhunzani ha zwivhumbeo u itela u dzhia tsheo dzavho, sa tsumbo, tshivhalo tsha masia, arali masia e tswititi kana o kheva na tshivhalo tsha dzikhuda.

Notsi dza mutshimbidzi

- ◆ Kha vha ṭalutshedze uri Mbekanyamushumo ya Mbalo i shumisa zwiṭori u funza divhaipfi ya mbalo nga ndila i fushaho.
- ◆ Kha vha ite tshiṭori sa litambwa, *Vha kokodza vho kokodza*, u bva kha Vhege ya 3 (*Nyendedzi ya Nyito: Kotara ya 2*, masiaṭari a 63 na 199).
- ◆ Kha vha humbele vhashelamulenzhe u fhedzisa **Nyito ya 11** zwigwadani zwavho.
- ◆ Zwenezwi tshigwada tshiṅwe na tshiṅwe tshi tshi khou vhiga murahu, kha vha ite mutevhe wa mbudziso dzine vha dzinginya kha bambiri la filipitshati.

Zwiṭori ndi ndila ya khwinesa ya u divhadza divhaipfi ya tshivhumbeo kha vhagudi. Kha vha thetshelese tshiṭori, *Vha kokodza vho kokodza*, u bva kha Vhege ya 3 (*Nyendedzi ya Nyito: Kotara ya 2*, masiaṭari a 63 na 199) tshi tshi khou ṭalutshedzwa nga mutshimbidzi wavho vha koneha u fhedzisa Nyito ya 11 tshigwadani tshavho.



Nyito ya 11

1. Ndi mbudziso dzifhio dzine vha nga vhudzisa vhagudi u itela u vha thusa u guda zwinzhi nga vhunzani ha dziṭhofunderaru?
-
-

Tsumbo:

Vha nga mmbudza mini nga mitalo/dzikhuda/ṭhodzi dza itshi tshivhumbeo?

Vha zwi divha hani uri ndi ṭhofunderaru?

Ndi zwifhio zwi fanaho/zwo fhambanaho nga ṭhofunderaru na nga tshikwea?

2. Are most of these questions open-ended or closed questions?

Note: Use *Activity Guide: Term 1* and *Term 2* to help you plan for teaching these weeks. The ideas and activity suggestions are a guide and resource. Set up the maths area with the content focus for each week.

2. Hone vhunzhi ha mbudziso idzi ndi mbudziso dzo tãndavhuwaho kana mbudziso dza phindulo nthihi?
-

Vha dzhiele nzhele: Kha vha shumise *Nyendedzi ya Nyito: Kotara ya 1 na Kotara ya 2* u vha thusa u pulanela u funza vhege idzi. Mihumbulo na madzinginywa a nyito ndi nyendedzi na zwishumiswa. Kha vha dzudzanye fhethu ha mbalo vho sedzesa kha magudiswa a vhege inwe na inwe.

Session 4: Planning for teaching

2 hours

Facilitator's notes

- ◆ Refer participants to Appendix A: Term 1 and 2 Weekly Content Summary: Term 1 (Week 10) and Term 2 (Weeks 1–3).
- ◆ Read the whole class, teacher-guided and workstation activities sections.
- ◆ Have participants work in groups to complete **Activity 12**.



Video 2

Activity Guide: Term 2, Week 1 (page 32)

Watch the video of the teacher-guided activity. Observe how the teacher uses questions to prompt and guide the learners during the activity.

Discuss how you have managed your teacher-guided activities in Term 1.

Have you faced any challenges? If so, what strategies have you used to resolve them?

Terms 1 and 2 Content Summary (Term 1 (Weeks 10) and Term 2 (Weeks 1–3))

Appendix A: Term 1 and 2 Weekly Content Summary: Term 1 (Week 10) and Term 2 (Weeks 1–3) 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.



Activity 12

Look at Appendix A: Term 1 and 2 Weekly Content Summary: Term 1 (Week 10) and Term 2 (Weeks 1–3). Answer the questions.

Dzulo la 4: U pulanela u funza

Awara 2

Notsi dza mutshimbidzi

- ◆ Kha vha rumele vhashelamulenzhe kha Thumetshedzo ya A: Manweledzo a Magudiswa a Vhege nga Vhege a Kotara ya 1 na 2: Kotara ya 1 (Vhege ya 10) na Kotara ya 2 (Vhege ya 1-3).
- ◆ Kha vha vhale khethekanyo dza nyito dza kilasi yothe, dzo rangwaho phanda nga mugudisi na dza zwiitshini zwa u shumela.
- ◆ Kha vha ri vhashelamulenzhe vha shume nga zwigwada u fhedzisa **Nyito ya 12**.



Vidiyo ya 2

Nyendedzi ya Nyito: Kotara ya 2, Vhege ya 1 (siafari la 33)

Kha vha talele vidiyo ya nyito yo rangwaho phanda nga mugudisi. Kha vha sedze uri mugudisi u shumisa hani mbudziso u tuxula na u endedza vhagudi nga tshifhinga tsha nyito.

Kha vha haseledze uri vho langisa hani nyito yo rangwaho phanda nga mugudisi yavho kha Kotara ya 1.

Vho vhuya vha tangana na khaedu? Arali zwo ralo, ndi maano afhio e vha shumisa u tandulula khaedu idzo?

Manweledzo a Magudiswa a Kotara ya 1 na 2 (Kotara ya 1 (Vhege ya 10) na Kotara ya 2 (Vhege ya 1-3))

Thumetshedzo ya A: Manweledzo a Magudiswa a Vhege nga Vhege a Kotara ya 1 na 2: Kotara ya 1 (Vhege ya 10) na Kotara ya 2 (Vhege ya 1-3) a ri gavhela Sia la Magudiswa lo Sedzwaho la ndeme la vhege inwe na inwe, thero dzine dza do kwamiwa, ndivho ntswa na ndowedzo yo sedzwaho ya vhege inwe na inwe, na nyito dzo dzinginywaho dza kilasi yothe, dzo rangwaho phanda nga mugudisi na mushumo wa tshigwada wo diimisaho wa vhege.



Nyito ya 12

Kha vha lavhelese kha Thumetshedzo ya A: Manweledzo a Magudiswa a Vhege nga Vhege a Kotara ya 1 na 2: Kotara ya 1 (Vhege ya 10) na Kotara ya 2 (Vhege ya 1-3). Kha vha fhindle mbudziso.

Questions	Week 10 Term 1	Week 1 Term 2	Week 2 Term 2	Week 3 Term 2
What is the Content Area Focus for the week?	Data Handling	Numbers, Operations and Relationships	Numbers, Operations and Relationships	Space and Shape (Geometry)
What are the key concepts that learners will be learning?	Collecting, sorting and classifying data Representing data Reporting on data	Number symbols and number words Ordering numbers	Money Ordinal numbers Equal groups Counting objects	Position, direction and views 2-D shapes
What new knowledge is introduced?	Collect, sort and represent collections of objects Discuss and report on sorted collections of objects	More than, fewer than, equal to Number 4	South African coins Ordinal numbers first to fourth Making equal groups the same to 4 Counting objects 1-6	Oral counting 1-15 Counting objects 1-7 Position: underneath
What skills are being practised?	Oral counting 1-10 Counting objects 1-5 Sequencing numbers 1-3 Number concept 1-3 Before and after Copying patterns Problem solving	Oral counting 1-10 and 5-1 Counting objects 1-5 Sequencing numbers 1-3 Reinforcing number concept 1-3	Oral counting 1-10 and 5-1 Counting objects 1-5 Sequencing numbers 1-4 Reinforcing number concept 1-4 Biggest to smallest, smallest to biggest	Position: next to, between, in front of, behind, on top Direction: forwards, backwards Number concept 1-4 Sequencing numbers 1-4 Count backwards 5-1 Shapes: circle, square, triangle

Activity Guide: Term 1: Week 10 and Activity Guide: Term 2: Weeks 1-3

Refer to Week 10 in *Activity Guide: Term 1* and Weeks 1, 2 and 3 in *Activity Guide: Term 2*. Complete Activity 13 in your group.

Mbudziso	Vhege ya 10 Kotara ya 1	Vhege ya 1 Kotara ya 2	Vhege ya 2 Kotara ya 2	Vhege ya 3 Kotara ya 2
Ndi Sia la Magudiswa lo Sedzeswaho lifhio la vhege?	U shuma na Data	Nomboro, Tswayo na Vhushaka	Nomboro, Tswayo na Vhushaka	Tshikhala na Tshivhumbeo (Dzhomeṭiri)
Ndi divhaipfi ifhio ya ndeme ine vhagudi vha do guda?	U kuvhanganya, u vhekanya na u khethekanya data U imela data U vhiga nga data	Zwiga zwa nomboro na maipfinomboro U tevhekanya nomboro	Tshelede Nomboro thevhekano Zwigwada zwi eḡanaho U vhalela zwithu	Vhuimo, sia na mbonalo Zwivhumbeo zwa 2-D
Ndi ndivho ntswa ifhio ine ya khou divhadzwa?	U kuvhanganya, u vhekanya na u imela khuvhanganyo ya zwithu U rera na u vhiga nga khuvhanganyo dzo vhekanywaho dza zwithu	Zwizhi kha, zwiṭuku kha, u eḡana na Nomboro 4	Mangwende a Afrika Tshipembe Nomboro thevhekano ya u thoma u swika kha ya vhuṅa U ita uri zwigwada zwi eḡanaho zwi fane na 4 U vhalela zwithu 1-6	U vhalela ha mutevhetsindo 1-15 U vhalela zwithu 1-7 Vhuimo: nga fhasi ha
Ndi zwikili zwifhio zwine ha khou itwa ndowedzo ngazwo?	U vhalela ha mutevhetsindo 1-10 U vhalela zwithu 1-5 U tevhekanya nomboro 1-3 Divhaipfi ya nomboro 1-3 Phanḡa ha na murahu ha U kopa phetheni U tandulula thaidzo	U vhalela ha mutevhetsindo 1-10 na 5-1 U vhalela zwithu 1-5 U tevhekanya nomboro 1-3 U kwhaṭhisedza divhaipfi ya nomboro 1-3	U vhalela ha mutevhetsindo 1-10 na 5-1 U vhalela zwithu 1-5 U tevhekanya nomboro 1-4 U kwhaṭhisedza divhaipfi ya nomboro 1-4 tshihulusesa u ya kha tshiṭukhusesa, tshiṭukhusesa u ya kha tshihulusesa	Vhuimo: tsini na, vhukati, phanḡa ha, murahu, nṭha ha Masia: phanḡa, murahu Divhaipfi ya nomboro 1-4 U tevhekanya nomboro 1-4 U vhalela murahu 5-1 Zwivhumbeo: tshitendeledzi, tshikwea, ṭhofunderaru

Nyendedzi ya Nyito: Kotara ya 1: Vhege ya 10 na Nyendedzi ya Nyito: Kotara ya 2: Vhege ya 1-3

Kha vha sedze kha Vhege ya 10 ngomu ha *Nyendedzi ya Nyito: Kotara ya 1* na Vhege ya 1, 2 na 3 kha *Nyendedzi ya Nyito: Kotara ya 2*. Kha vha fhedzise Nyito ya 13 tshigwadani tshavho.



Activity 13

Find Week 10 in *Activity Guide: Term 1*. Answer the questions.

1. What is the Content Area Focus for the week?
2. What topics and new knowledge are taught in this week?
3. How does the 'Practise' content link to the previous week?
4. What do you need to get ready before teaching this week?
5. Read the whole class activities and small group activities.
6. Discuss in your small group how you will plan and organise your class for this week of teaching.
7. In your small group refer back to Week 10 in Appendix A. Match the whole class activities and small group activities in Week 10 of *Activity Guide: Term 1* to the Weekly Content Summary in Appendix A.



Activity 14

Find Weeks 1, 2 and 3 in *Activity Guide: Term 2*. Answer the questions.

1. What is the Content Area Focus for each week?
2. What topics and new knowledge are taught in each week?
3. How does the 'Practise' content link to the previous week?
4. What do you need to get ready before teaching each week?
5. Read the whole class activities and small group activities.
6. Discuss in your small group how you will plan and organise your class for these three weeks of teaching.
7. In your small group refer back to Weeks 1–3 in Appendix A. Match the whole class activities and small group activities in Weeks 1–3 of *Activity Guide: Term 2* to the Weekly Content Summary in Appendix A.



Remember that the eye in the shaded block at the end of the teacher-guided activities (**Check that learners are able to**) 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.

Make a mental note of each learner and once the learners have left for the day, write down your observations in a dedicated observation book that has space for each learner's notes.



Nyito ya 13

Kha vha wane Vhege ya 10 ngomu ha *Nyendedzi ya Nyito: Kotara ya 1*. Kha vha fhindle mbudziso.

1. Ndi Sia la Magudiswa lo Sedzwaho lifhio la vhege?
2. Ndi thero na ndivho ntswa zwifhio zwine zwa khou funzwa kha vhege iyi?
3. Magudiswa a 'Ndowedzo' a tumana hani na a vhege yo fhiraho?
4. Vha toda zwifhio u dilugisela phanda ha musi vha tshi funza vhege iyi?
5. Kha vha vhale nyito dza kilasi yothe na nyito dza zwigwada zwiṭuku.
6. Kha vha haseledze zwigadani zwavho zwiṭuku uri vha do dzudzanya hani kilasi yavho u itela vhege iyi ya u funza.
7. Vhe zwigwadani zwavho zwiṭuku kha vha sedze murahu kha Vhege ya 10 kha Thumetshedzo ya A. Kha vha fanyise nyito dza kilasi yothe na nyito dza zwigwada zwiṭuku kha Vhege ya 10 ya *Nyendedzi ya Nyito: Kotara ya 1* kha Manweledzo a Magudiswa a Vhege nga Vhege a re kha Thumetshedzo ya A.



Nyito ya 14

Kha vha wane Vhege ya 1, 2 na 3 ngomu ha *Nyendedzi ya Nyito: Kotara ya 2*. Kha vha fhindle mbudziso.

1. Ndi Sia la Magudiswa lo Sedzwaho lifhio la vhege inwe na inwe?
2. Ndi thero na ndivho ntswa zwifhio zwine zwa funzwa vhege inwe na inwe?
3. Magudiswa a 'Ndowedzo' a tumana hani na a vhege yo fhiraho?
4. Vha toda zwifhio u dilugisela phanda ha musi vha tshi funza vhege inwe na inwe?
5. Kha vha vhale nyito dza kilasi yothe na nyito dza zwigwada zwiṭuku.
6. Kha vha haseledze zwigadani zwavho zwiṭuku uri vha do pulana na u dzudzanya kilasi yavho hani u itela vhege idzi tharu dza u funza.
7. Vhe zwigwadani zwavho zwiṭuku kha vha sedze murahu kha Vhege ya 1-3 kha Thumetshedzo ya A. Kha vha fanyise nyito dza kilasi yothe na nyito dza zwigwada zwiṭuku dzi re kha Vhege ya 1-3 kha *Nyendedzi ya Nyito: Kotara ya 2* na Manweledzo a Magudiswa a Vhege nga Vhege a re kha Thumetshedzo ya A.



Vha humbule uri ito li re kha tshibuḽoko tsho swifhadzwaho magumoni a nyito yo rangwaho phanda nga mugudisi (**Kha vha tole uri vhagudi vha a kona u**) li ri humbudza uri ri fanela u sedza vhagudi musi vhe kati, nahone ri fanela u thetshelesa nga vhuronwane musi vha tshi khou amba na riṅe na thangana dzavho dza murole.

Kha vha ite notsi muhumbuloni nga mugudi muṅwe na muṅwe nahone musi vhagudi vho no tuwa nga ili duvha, kha vha ṅwale zwe vha vhona ngomu kha bugu yo tetshelwaho u vhona ine ya vha na tshikhala tsha notsi dza mugudi muṅwe na muṅwe.

Closing activities

Facilitator's notes

- ◆ **Lessons learnt:** Ask participants to think about what they have learnt during the workshop and to complete **Activity 15** individually.
- ◆ **Take back to school task:** Read through this task. Ask if there is anything that is not clear and that requires more explanation. Draw attention to how observation and assessment records and systems must be in place by this stage of the year. Ask how participants are filing these. Ask for examples to be brought to Workshop 5.
- ◆ **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 15

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

Nyito dza u vala

Notsi dza mutshimbidzi

- ◆ **Ngudo dzo gudwaho:** Kha vha humbele vhashelamulenzhe u humbula nga zwe vha guda nga tshifhinga tsha wekishopo na uri vha fhedzise **Nyito ya 15** nga muthihimuthihi.
- ◆ **Mushumo wa u tuwa nawo tshikoloni:** Kha vha vhale mushumo uyu. Kha vha vhudzise arali hu na zwiṅwe zwi sa pfali zwine zwa ṭoḁa u ṭalutshedzwa. Kha vha vha humbudze uri u sedza vhagudi na rekhodo dza u linga na dzisisiṭeme zwi fanela hani u vha zwi hone nga hetshino tshifhinga tsha ṅwaha. Kha vha vhudzise uri vhashelamulenzhe vha khou vheya hani izwi kha faela. Kha vha humbele uri tsumbo dzi ḁiswe kha Wekishopo ya 5.
- ◆ **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 ṅee maḁuvha a wekishopo i tevhelaho vha vale wekishopo.



Nyito ya 15

Ngudo dzo gudwaho: Kha vha humbule nga zwe vha guda nga tshifhinga tsha wekishopo vha fhedzise thebuḁu.

Zwithu zwine ndi a zwi ita zwi ntshumelaho zwavhuḁi	Mihumbulo miswa ine nda tama u i lingedza



Take back to school task

1. Continue with your observations to build up a complete picture of each learner.
2. During the teacher-guided activities complete the *Check that learners are able to* section (after the teacher-guided activity in each week) for each learner being observed.
3. Make a copy of the Exemplar Record of Continuous Assessments in *Activity Guide: Term 1* (pages 190–193).
4. Use the information collected in your observation notes to date and record each learner's development. (Remember that patterns of development need to be recorded over time.)
5. Use *Activity Guide: Term 1* (Week 10) and *Activity Guide: Term 2* (Weeks 1–3) to plan and implement Term 1 Week 10 and Term 2 Weeks 1–3 of the Maths Programme, including creating a maths area with a focus on the concept for each week.
6. Write an evaluation of what worked well, what did not work so well and what you could do differently to improve teaching and learning. Bring your evaluation report to the next workshop.

Evaluation

Complete the Evaluation Form.



Mushumo wa u tuwa nawo tshikoloni

1. Kha vha bvele phanḁa na u sedza vhagudi u itela u fhaḁa tshifanyiso tsho fhelelaho tsha mugudi muḁwe na muḁwe.
2. Nga tshifhinga tsha nyito dzo rangwaho phanḁa nga mugudisi kha vha fhedzise tshiteḁwa tsha *Kha vha ḁole uri vhagudi vha a kona u* (nga murahu ha nyito yo rangwaho phanḁa nga mugudisi vhege iḁwe na iḁwe) u itela mugudi muḁwe na muḁwe ane a khou sedzwa.
3. Kha vha ite khophi ya Tsumbo ya Rekhodo ya u Linga hu yaho phanḁa kha *Nyendedzi ya Nyito: Kotara ya 1* (masiaḁari a 190–193).
4. Kha vha shumise mafhungo e vha kuvhanganya kha notsi dza zwe vha vhona u swika zwino vha rekhode mvelephanḁa ya mugudi muḁwe na muḁwe. (Vha humbule uri phetheni dza mveledziso dzi fanela u rekhodwa u ya nga tshifhinga.)
5. Kha vha shumise *Nyendedzi ya Nyito: Kotara ya 1* (Vhege ya 10) na *Nyendedzi ya Nyito: Kotara ya 2* (Vhege ya 1–3) u itela u pulana na u thoma Kotara ya 1 Vhege ya 10 na Kotara ya 2 Vhege ya 1–3 dza Mbekanyamushumo ya Mbalo, hu tshi katelwa na u sika fhethu ha mbalo ho sedzeswa kha ḁivhaipfi ya vhege iḁwe na iḁwe.
6. Kha vha ḁwale muhumbulo wa u linga zwe zwa shuma zwavhuḁi na zwe zwa si shume zwavhuḁi na zwine vha nga ita nga iḁwe ḁḁila uri vha khwinise u funza na u guda. Kha vha ḁe na muvhigo wa muhumbulo wa u linga wavho kha wekishopo i tevhelaho.

U linga

Kha vha ḁadze Fomo ya u Linga.

APPENDIX A: TERM 1 AND 2 WEEKLY CONTENT SUMMARY: TERM 1 (WEEK 10) AND TERM 2 (WEEKS 1-3)

Term 1: Activity Plan

Week 10				
CONTENT AREA: DATA HANDLING				
TOPIC: Collect and sort objects, represent sorted collections of objects, discuss and report on sorted collections of objects				
INTRODUCE NEW KNOWLEDGE: Collect, sort and represent collections of objects (weather); discuss and report on sorted collections; create own pattern				
PRACTISE: Oral counting 1-10, counting backwards from 5, sequencing numbers 1-3, counting objects 1-5, number concept 1-3, copy patterns, problem-solving techniques				
Whole class activities		Teacher-guided activity	Workstation activities	
Day 1	Sorting and classifying, waste items.	Oral counting. Touch and count – one-to-one correspondence. Sorting and classifying activities – animals. Representing and interpreting data.	Activity 1	Sorting waste.
Day 2	Data collection, sorting clothing items.		Activity 2	Sorting colours.
Day 3	Sorting and classifying, group game.		Activity 3	Sorting tray, natural items.
Day 4	Use data collected from the weather discussions, represent and analyse how many days were sunny, raining etc.		Activity 4	Copy pattern using concrete objects and then create own pattern.
Day 5	Weather data collection, representing and analysing.			

Term 2: Activity Plan

Week 1				
CONTENT AREA: NUMBERS, OPERATIONS AND RELATIONSHIPS				
TOPIC: Recognise number symbols and number words, describe, order and compare numbers				
INTRODUCE NEW KNOWLEDGE: More than/fewer than/equal to, introduce number 4				
PRACTISE: Oral counting 1-10, sequencing numbers 1-3, counting objects 1-5, reinforce number concept 1-3				
Whole class activities		Teacher-guided activity	Workstation activities	
Day 1	Introduce 4 (giraffes).	Counting objects 1-5. Matching objects to number dot, symbol and word cards 1-4. Arrange counters to match dot cards. Practise more than, fewer than, equal. Write number 4 (as with numbers 1 to 3).	Activity 1	Playdough mat 4 (as for previous numbers).
Day 2	Introduce more than/less than/equal to, maths table.		Activity 2	Number ordering puzzle activity to 4 (forms a picture).
Day 3	Reinforce 1-4, dot cards and ordering.		Activity 3	Matching number symbols, words and concrete objects to 4.
Day 4	Reinforce 1-4, Unifix blocks and hoops.		Activity 4	Number puzzles (no number words).
Day 5	Reinforce number 4, Poster 6.			

ṬHUMETSHEDZO YA A: MANWELEDZO A MAGUDISWA A VHEGE NGA VHEGE A KOTARA YA 1 NA 2: KOTARA YA 1 (VHEGE YA 10) NA KOTARA YA 2 (VHEGE YA 1–3)

Kotara ya 1: Pulane ya Nyito

Vhege ya 10			
SIA LA MAGUDISWA: U SHUMA NA DATA			
THERO: U kuvhanganya na u vhekanya zwithu, u imela khuvhanganyo dzo vhekanywaho dza zwithu, u haseledza na u vhiga nga khuvhanganyo dzo vhekanywaho dza zwithu KHA VHA DIVHADZE N̄DIVHO NTSWA: U kuvhanganya, u vhekanya na u imela khuvhanganyo dza zwithu (mutsho); u haseledza na u vhiga nga khuvhanganyo dzo vhekanywaho; u sika phetheni ya ene muḽe N̄DOWEDZO: U vhalela ha mutevhetsindo 1–10, u vhalela u humela murahu u bva kha 5, u tevhekanya nomboro 1–3, u vhalela zwithu 1–5, ḽivhaipfi ya nomboro 1–3, u kopa phetheni, thekiniki dza u tandulula thaidzo			
Nyito dza k̄lasi yoṽhe		Nyito yo rangwaho phanḽa nga mugudisi	Nyito dza tsh̄itshini tsha u shumela
ḽuvha la 1	U vhekanya na u khethekanya, zwithu zwa thukhwi.	U vhalela ha mutevhetsindo.	Nyito ya 1 U vhekanya thukhwi.
ḽuvha la 2	U kuvhanganya data, u vhekanya zwiambaro.	U kwama na u vhalela – u	Nyito ya 2 U vhekanya mivhala.
ḽuvha la 3	U vhekanya na u khethekanya, mutambo wa tshigwada.	livhanyisa tshithu nga tshithu.	Nyito ya 3 ṽhireyi ya u vhekanya, zwithu zwa mupo.
ḽuvha la 4	U shumisa data yo kuvhanganywaho u bva kha khaseledzo ya mutsho, u imela na u saukanya uri ndi maḽuvha mangana e a vha e na ḽuvha, mvula ngaauralongauralo.	Nyito dza u vhekanya na u khethekanya – phukha.	Nyito ya 4 U kopa phetheni a tshi shumisa zwithu zwi fareaho a konaha u sika phetheni ya ene muḽe.
ḽuvha la 5	Khuvhanganyo ya data ya mutsho, u imela na u saukanya.	U imela na u ṽalutshedza data.	

Kotara ya 2: Pulane ya Nyito

Vhege ya 1			
SIA LA MAGUDISWA: NOMBORO, TSWAYO NA VHUSHAKA			
THERO: U topola zwiga zwa nomboro na ipfinomboro, u ṽalusa, u tevhekanya na u vhambedza nomboro KHA VHA DIVHADZE N̄DIVHO NTSWA: Zwinzhi kha/zwiṽutuku kha/eḽana na, u ḽivhadza nomboro 4 N̄DOWEDZO: U vhalela ha mutevhetsindo 1–10, u tevhekanya nomboro 1–3, u vhalela zwithu 1–5, u khwaṽhisedza ḽivhaipfi ya nomboro 1–3			
Nyito dza k̄lasi yoṽhe		Nyito yo rangwaho phanḽa nga mugudisi	Nyito dza tsh̄itshini tsha u shumela
ḽuvha la 1	U ḽivhadza 4 (ṽhuda).	U vhalela zwithu 1–5.	Nyito ya 1 Methe wa suko la u tambisa 4 (sa nomboro dzo fhiraho).
ḽuvha la 2	U ḽivhadza zwinzhi kha/zwiṽutuku kha/eḽana na, ṽafula ya mbalo.	U fanyisa zwithu na tshithoma tsha nomboro, magaraṽa a tshiga na a ipfi 1–4.	Nyito ya 2 Nyito ya phazili ya u tevhekanya nomboro u swika kha 4 (zwivhumbeo zwa zwifanyiso).
ḽuvha la 3	U khwaṽhisedza 1–4, magaraṽa a tshithoma na u tevhekanya.	U dzudzanya zwithu zwa u vhalela ngazwo uri zwi fane na magaraṽa a tshithoma.	Nyito ya 3 U fanyisa zwiga zwa nomboro, maipfi na zwithu zwi fareaho u swika kha 4.
ḽuvha la 4	U khwaṽhisedza 1–4, zwiḽuḽoko zwa Yunifikisi na dzihupusi.	U ita n̄dowedzo ya zwinzhi kha, zwiṽutuku kha, eḽana na. U ṽwala nomboro 4 (u fana na nomboro 1 u ya kha 3).	Nyito ya 4 Phazili ya nomboro (hu si na ipfinomboro).
ḽuvha la 5	U khwaṽhisedza nomboro 4, Phositara ya 6.		

Week 2				
CONTENT AREA: NUMBERS, OPERATIONS AND RELATIONSHIPS				
TOPIC: Money: develop an awareness of South African coins				
INTRODUCE NEW KNOWLEDGE: South African coins, ordinal numbers first to fourth, making equal groups the same to 4, counting objects 1–6				
PRACTISE: Oral counting 1–10 and 5–1, sequencing numbers 1–4, reinforce number concept 1–4, biggest to smallest/smallest to biggest				
Whole class activities		Teacher-guided activity	Workstation activities	
Day 1	Introduce South African coins (cents and rands), Poster 7.	Number concept 1–4. Estimation. Shake and break with 4. South African coins – match coins to ‘goods in shop’. Use cut-out coins; sorting, ordering, matching. Make equal groups to 4 – using counters.	Activity 1	Make own coin (give a circle shape).
Day 2	Maths table – shopping, ordinal numbers first to fourth.		Activity 2	Number caterpillar – sequencing numbers 1–4.
Day 3	Matching number/dot cards and number words.		Activity 3	Draw or paste objects to match numbers 1–4.
Day 4	Ordering number 1–4, shopping.		Activity 4	Posting activity using number and colour 1–4.
Day 5	Problem solving up to 4 (Poster 7).			

Week 3				
CONTENT AREA: SPACE AND SHAPE (GEOMETRY)				
TOPIC: Position, orientation and views; describes sorts and compares 2-D shapes				
INTRODUCE NEW KNOWLEDGE: Position: underneath, oral counting 1–15, counting objects 1–7, orientation and views				
PRACTISE: Oral counting 1–10 and 5–1; sequencing numbers 1–4; reinforce number concept 1–4; count backwards 5–1; shapes: circle, square, triangle; position: in front of, behind, on top, between, next to; direction: forwards, backwards				
Whole class activities		Teacher-guided activity	Workstation activities	
Day 1	Positions, shape game.	Counting. Use shapes to show correct number (1–4). Position: next to, between, in front of, behind, on top, underneath. Direction: forwards, backwards.	Activity 1	Colour triangles.
Day 2	Reinforce the triangle.		Activity 2	Carrot activity (cut out triangles and add correct number of leaves).
Day 3	Position (next to, between, in front of, behind, on top, underneath).		Activity 3	Sorting tray – according to colour, shape or size (one attribute).
Day 4	Reinforce all the shapes done, shape story.		Activity 4	Building towers with construction blocks.
Day 5	Following direction: How do I get to ...? Poster 9. Orientation and views using a toy car.			

Vheye ya 2				
SIA LA MAGUDISWA: NOMBORO, TSWAYO NA VHUSHAKA				
THERO: Tshelede: u bveledza u dzhiela nzhele mangwende a Afrika Tshipembe				
KHA VHA DIVHADZE NDIVHO NTSWA: Mangwende a Afrika Tshipembe, nomboro thevhekano ya u thoma u ya kha ya vhuṅa, u ita uri zwigwada zwi eḡanaho zwi fane na 4, u vhalela zwithu 1–6				
NḊOWEDZO: U vhalela ha mutevhetsindo 1–10 na 5–1, u tevhékanya nomboro 1–4, u khwaṅhisedza ḡivhaipfi ya nomboro 1–4, tshihulusesa u ya kha tshikukusesa/tshikukusesa u ya kha tshihulusesa				
Nyito dza kīlasi yoṅhe		Nyito yo rangwaho phanḡa nga mugudisi		Nyito dza tshikukushini tsha u shumela
Ḋuvha la 1	Kha vha ḡivhadze mangwende a Afrika Tshipembe (masenthe na dzirannya), Phositara ya 7.	Ḋivhaipfi ya nomboro 1–4. Nyanganyelo.	Nyito ya 1	U ita likwende lawe ene muḡe (kha vha mu ṅee tshivhumbeo tsha tshitendeledzi).
Ḋuvha la 2	Ṭafula ya Mbalo – u renga, nomboro thevhekano ya mathomo u ya kha ya vhuṅa.	U dzinginya na u kwasha nga 4. Mangwende a Afrika Tshipembe – u fanyisa mangwende na 'thundu dzi re ngomu vhengeleni'.	Nyito ya 2	Shonzha la nomboro – u tevhékanya nomboro 1–4.
Ḋuvha la 3	U vhambedza nomboro/magaraṅa a tshithoma na ipfinomboro.	Kha vha shumise mangwende o gerwaho; u vhekanya, u tevhékanya, u fanyisa.	Nyito ya 3	U ola kana u nambatedza zwithu u itela u fanyisa nomboro 1–4.
Ḋuvha la 4	U tevhékanya nomboro 1–4, u renga.	U ita zwigwada zwi eḡanaho uri zwi fane na 4 – u shumisa zwithu zwa u vhalela ngazwo.	Nyito ya 4	Nyito ya u posa a tshi shumisa nomboro na muvhala 1–4.
Ḋuvha la 5	U tandulula thaidzo u swika kha 4 (Phositara ya 7).			

Vhege ya 3				
SIA LA MAGUDISWA: TSHIKHALA NA TSHIVHUMBEO (DZHOMEṬIRI)				
THERO: Vhuimo, orienthesheni na mbonalo; u ṅalusa, u vhekanya na u vhambedza zwivhumbeo zwa 2-D				
KHA VHA DIVHADZE NDIVHO NTSWA: Vhuimo: nga fhasi, u vhalela ha mutevhetsindo 1–15, u vhalela zwithu 1–7, orienthesheni na mbonalo				
NḊOWEDZO: U vhalela ha mutevhetsindo 1–10 na 5–1; u tevhékanya nomboro 1–4; u khwaṅhisedza ḡivhaipfi ya nomboro 1–4; u vhalela u humela murahu 5–1; zwivhumbeo: tshitendeledzi, tshikwea, ṅhofunderaru; vhuimo: phanḡa ha, murahu, ṅṅha, vhukati, tsini na; sia: phanḡa, murahu				
Nyito dza kīlasi yoṅhe		Nyito yo rangwaho phanḡa nga mugudisi		Nyito dza tshikukushini tsha u shumela
Ḋuvha la 1	Vhuimo, mutambo wa tshivhumbeo.	U vhalela.	Nyito ya 1	U dzhenisa muvhala kha dziṅhofunderaru.
Ḋuvha la 2	U khwaṅhisedza ṅhofunderaru.	U shumisa zwivhumbeo u sumbedza nomboro yo teaho (1–4).	Nyito ya 2	Nyito ya kherotsi (u gera dziṅhofunderaru na u engedza tshivhalo tsho teaho tsha maṅari).
Ḋuvha la 3	Vhuimo (tsini na, vhukati, phanḡa ha, murahu, nga ṅṅha, nga fhasi).	Vhuimo: tsini na, vhukati, phanḡa ha, murahu, nga ṅṅha, nga fhasi.	Nyito ya 3	Ṭhreyi ya u vhekanya – u ya nga muvhala, tshivhumbeo kana saizi (tshidodombedzwa tshithihi).
Ḋuvha la 4	U khwaṅhisedza zwivhumbeo zwoṅhe zwo itwaho, tshikukushini tsha tshivhumbeo.	Sia: phanḡa, murahu.	Nyito ya 4	U fhaṅa dzithawara nga zwibuḡoko zwa u fhaṅa.
Ḋuvha la 5	U tevhela sia: Ndi swikisa hani ...? Phositara ya 9. Orienthesheni na mbonalo a tshi shumisa goloi ya u tambisa.			

Workshop 4 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 4

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 konḡelwa u zwi pfesesa?

4. Vha ḡo shumisa hani zwe vha guda ngomu kiḡasirumuni yavho ya Gireidi ya T?

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