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GROWING GAUTENG TOGETHER

Sesotho/English

Lenaneo le Ntlafaditsweng la Mmetse la Kereiti ya R Grade R Mathematics Improvement Programme



**Wekshopo ya 4 • Workshop 4
Tataiso ya Motsamaisi • Facilitator's Guide**

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

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

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

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Projeke ya Mmetse wa Kereiti ya R le Ntlatso ya Puo ke bohato ba pele ba **Lefapha la Thuto la Gauteng (Gauteng Department of Education)** le molekane wa lona wa sehlooho, **Gauteng Education Development Trust**.

Ntshetsopele le tlhahiso ya mehlodi ya thupelo le ya phaposi ya borutelo bakeng sa Projeke ya Mmetse wa Kereiti ya R le Ntlatso ya Puo di ile tsa tswelletswa ke tshehetso ka ditjhelete ya diprojeke e fanweng ke **United States Agency for International Development** le **Zenex Foundation**.

Projeke ya Mmetse wa Kereiti ya R le Ntlatso ya Puo e tsamaiswa ke **JET Education Services** mmoho le **Schools Development Unit** ya **UCT** le **Wordworks** jwaloka balekane ba setegeniki.

Schools Development Unit (SDU) ya **University of Cape Town (UCT)** ke molekane wa setegeniki wa mmetse bakeng sa Projeke ya Mmetse wa Kereiti ya R le Ntlatso ya Puo. SDU ke yuniti e kahara School of Education sa UCT e tsepameng ho ntshetsopele ya porofeshene ya matitjhere ho Mmetse, Saense, Tsebo ya ho Bala le ho Ngola/Puo le Bokgoni ba Bophelo ho tloha ho Kereiti ya R ho isa ho Kereiti ya 12. SDU e fana ka mangolo a botitjhere le a dithuto tse kgutshwane tse ananetsweng tsa UCT, mosebetsi o theilweng dikolong, ntshetsopele ya disebediswa le diphuputso bakeng sa ho tshehetsa ho ruta le ho ithuta dikarolong tsohle tsa Afrika Borwa.

DITEBOHO

Diteboho tse kgethehileng ho:

- Baofisiri ba Botsamaisi ba Kharikhulamo, Botsamaisi ba Thuto ya Matitjhere le Botsamaisi ba Thuto e Kgethehileng ba Lefapha la Thuto la Gauteng, bakeng sa nyehelo ya bona ntlatsoeng ya disebediswa tsa rona tsa thuto.
- Baofisiri le matitjhere a Western Cape Education Department (WCED) ka nyehelo ya bona bakeng sa ho kenngwa tshebetsong ka katleho ha Grade R Mathematics Programme (*R-Maths*) mane Western Cape pakeng tsa 2016 le 2019.
- Sehlopha se ngolang sa *R-Maths*. Basebetsi le baeletsi ba SDU.



Lenaneo le Ntlatsoeng la Mmetse la Kereite ya R le ntlatsoeng ho tloha ho *R-Maths*, e ileng ya phatlalatswa lekgetlo la pele ka 2017 ke Schools Development Unit, University of Cape Town. Tokelo ya kgatiso ya *R-Maths* e tshwerwe ke University of Cape Town.

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Overview

Purpose

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

The purpose of this workshop is to assist teachers to implement the Maths Programme in their classrooms. 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)

Tjhebokakaretso

Sepheo

Ena ke ya bone ya diwekshopo tse leshome le metso e mmedi tsa Lenaneo le Ntlafaditsweng la Mmetse la Kereiti ya R (Lenaneo la Mmetse), tse etsang karolo ya Lefapha la Thuto la Gauteng (GDE) Projeke ya Mmetse wa Kereiti ya R le Ntlafatso ya Puo.

Sepheo sa wekshopo ena ke ho thusa matitjhere ho kenya tshebetsong Lenaneo la Mmetse ka diphaposing tsa bona tsa borutelo. Bankakarolo ba tla ba le monyetla wa ho hopola tseo ba di lemohileng mme ba sibolle kamoo **ntlhatheo ya mekgahlelo** e susumetsang ho rera, ho ruta le ho ithuta ka teng. Bankakarolo hape ba tla nahanisisa **ntlhatheo ya mekgahlelo** le kamoo ba ka arabelang ho baithuti ba nang le ditlhoko tse ikgethileng tsa ntshetsopele le ho ithuta. Dikarolo di tla fana ka tsebo e eketsehileng le kutlwisiso ya ho ruta le ho ithuta ho Dikarolo tsa Dikahare tse entsweng ho Beke ya 10 ya Kotara ya 1, le Dibeke tsa 1–3 tsa Kotara ya 2.

Dintlha tse buang ka Dikarolo tsa Dikahare tsa Mmetse wa Kereiti ya R di nkilwe ho *Setatemente sa Leano la Kharikhulamo le Tekanyetso (SLKT): Mmetse wa Kereiti ya R (Moralo wa Moshwelella)*, 2011, Lefapha la Thuto ya Motheo, Afrika Borwa.

Diphetho tsa ho Ithuta

- ◆ Ho shebisisa ho kenya tshebetsong ha Kotara ya 1 Dibeke tsa 6–9
- ◆ Ho sibolla mawa a ho tshehetsa ho ruta mmetse Kereiting ya R
- ◆ Ho qala ho tlisa ditharollo ho kgatelopele ya baithuti le mekgahlelo ya ntshetsopele
- ◆ Ho sebedisa dintlhatheo tsa Lenaneo la Mmetse moralong wa beke le beke
- ◆ Ho sekaseka dikahare tsa Lenaneo la Mmetse tsa Kotara ya 1 Beke ya 10 le Kotara ya 2 Dibeke tsa 1–3 (Ho Sebetsa ka Datha; Dinomoro, Matshwao le Dikamano; Sebaka le Sebopeho (Jeometri))

Dikahare tsa wekshopo

- ◆ Pulo le boikgopotso (Hora e 1)
- ◆ Karolo ya 1: Ho Sebetsa ka Datha (Hora e 1)

TEYE

- ◆ Karolo ya 2: Dinomoro, Matshwao le Dikamano (Hora e 1)
- ◆ Karolo ya 3: Sebaka le Sebopeho (Jeometri) (Hora e 1)

DIJO TSA MOTSHEARE

- ◆ Karolo ya 4: Ho etsa moralo bakeng sa ho ruta (Dihora tse 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

Tokisetso

- ◆ PPT kamohelo le dipheho
- ◆ Bala:

Tataiso ya Mareo, maqephe a 136–137, 212–219

Tataiso ya Diketsahalo: Kotara ya 1, maqephe a 18–21

Sehlopho A: Kotara ya 1 le 2 Kakaretso ya Dikahare tsa Beke le beke

- ◆ Bea hantle *Khiti ya Disebediswa* tsa Lenaneo la Mmetse hodima tafole ya sehlopha ka seng.
- ◆ PPT: Sedikadikwe sa Ho Sebetsa ka Datha.
- ◆ Lokisa pale, *Ba hula ba nna ba hula*, (*Tataiso ya Diketsahalo: Kotara ya 2*, leqephe la 63 le la 199).

Disebediswa

- ◆ Pampiri ya fliptjhate, dikoki
- ◆ *Khiti ya Disebediswa*: dibadi tsa diphoofolo
- ◆ *Khiti ya Disebediswa*: diboloko tsa makgetha
- ◆ Khopi ya *Tataiso ya Diketsahalo: Kotara ya 2* bakeng sa monkakarolo ka mong

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.

Dinoutso tsa motsamaisi

- ◆ PPT: Diphetho tsa ho ithuta tsa wekshopo.
- ◆ Hopotsa bankakarolo ka mosebetsi wa *Kgutlela le yona sekolong* o tswang qetellong ya Wekshopo ya 3.
- ◆ Ere bankakarolo ba ye ho **Ketsahalo ya 1** mme ba bale ditaelo tseo. Bankakarolo ba phethela ketsahalo dihlotshwaneng tsa bona. Dihlotshwana di abelana dintlha tsa sehlooho le sehlopha se sehlo.
- ◆ Hopotsa bankakarolo ka **ntlhatheo ya mekgahlelo** le bohlokwa ba ho nkela hloohong bokgoni bo fapaneng le mekgahlelo ya ntshetsopele e fapaneng ya baithuti.

Ikgopotsoeng ka ho kenngwa tshebetsong ha Lenaneo la Mmetse ho lenaneo la lona la letsatsi le letsatsi mme le phethele ketsahalo e latelang sehlotshwaneng sa lona.



Ketsahalo ya 1

Buisanang ka kgatelopele ya lona ya ho kenya tshebetsong mosebetsi wa *Kgutlela le yona sekolong* ho tswa ho Wekshopo ya 3.

Shebang mabokoso a ho lekola ditemoho a qetellong ya beke ka nngwe ho *Tataiso ya Diketsahalo: Kotara ya 1*, Dibeke tsa 6, 7, 8 le 9.

1. Ke dikutlwisiso dife tseo o di fumaneng ha o ntse o shebelletse baithuti nakong ya bona ya tsepamiso ho Mmetse?

2. Ke eng eo o e fumaneng e le thata mabapi le ditemoho tseo nakong ya ketsahalo e tataiswang ke titjhere?

3. Bolela ntho e le nngwe e ntjha e sebetsang hantle mabapi le ho kenya tshebetsong ha hao ha Kotara ya 1 Dibeke tsa 6–9. Na o fumane hore Lenaneo la Mmetse le a thusa mabapi le ho ruta le ho ithuta ka tlelaseng ya hao ya Kereiti ya R?

Ho ya ka **ntlhatheo ya mekgahlelo**, ho lemoha diphapang ho bolela hore seo o se rutang le kamoo o se rutang kateng di lokela ho nkela hloohong bokgoni bo fapaneng le maemo a ntshetsopele a fapaneng a baithuti ba hao. Ho sebedisa mokgwa ona, o lokela ho dula o ntse o shebile le ho rekota kgatelopele le ntshetsopele ya moithuti ka mong ho mmetse.

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?

Dinoutso tsa motsamaisi

- ◆ Wekshopo ena e tsepame ho ho ruta dikahare tsa Lenaneo la Mmetse bakeng sa Kotara ya 2 Beke ya 10 le Kotara ya 2 Dibeke tsa 1-3.
- ◆ Hlalosa hore tsepamiso ya Kotara ya 1 Beke ya 10 e ho Ho Sebetsa ka Datha.
- ◆ Romela bankakarolo ho maqephe ana 136-137 a *Tataiso ya Mareo*.
- ◆ Kopa bankakarolo ho sebetsa ka dihlotshwana bakeng sa ho phethela **Ketsahalo ya 2**. Kopa motho a le mong ho tswa sehlotshwaneng ka seng ho abelana ka mehopollo ya bona.

Wekshopo ena e tsepame ho ho ruta dikahare tse latelang tsa Lenaneo la Mmetse: Kotara ya 1 Beke ya 10 le Kotara ya 2 Dibeke tsa 1-3. Karolo ena e tsepame ho Kotara ya 1 Beke ya 10: Ho Sebetsa ka Datha.

Kotara ya 1 Tjhebokakaretso ya Dikahare: Ho Sebetsa ka Datha

Shebang Karolo ya Dikahare ya Ho Sebetsa ka Datha e ho maqephe a 136-137 a *Tataiso ya Dikahare*.



Ketsahalo ya 2

Sehlopheng sa lona, buisanang ka hore:

1. Ke dikahare dife tsa Ho Sebetsa ka Datha tse kenyeleditsweng ho Kotara ya 1?

2. Ke eng eo Lenaneo la Mmetse le e eketsang ho dikahare tsa SLTK?

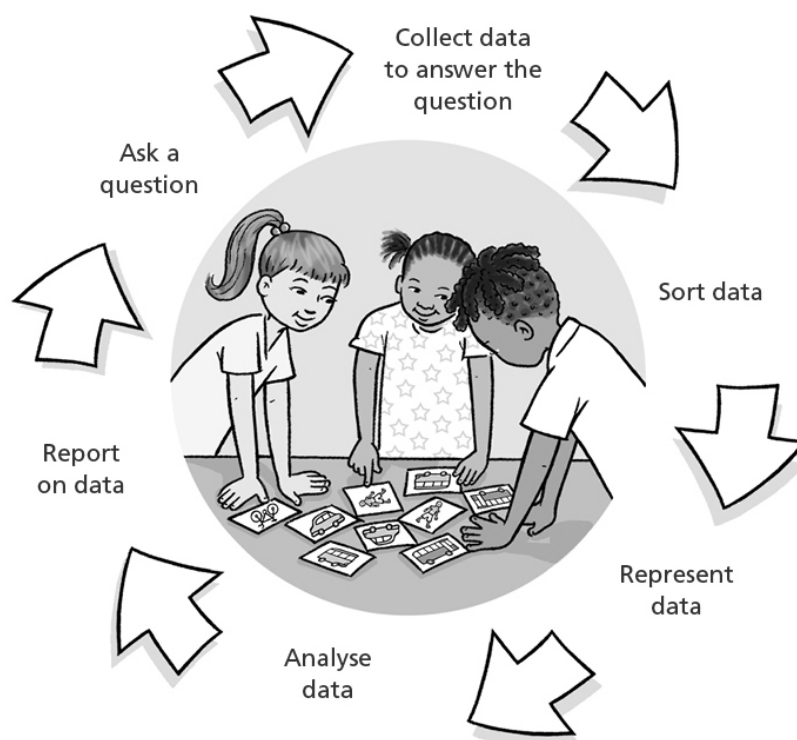
Ho sebetsa ka datha

Dinoutso tsa motsamaisi

- ◆ Qala karolo ena ka ketsahalo e latelang.
Kopa bankakarolo ba rwetseng diteki hore ba eme mmoho.
Kopa bankakarolo ba rwetseng disentlele hore ba eme mmoho.
Kopa bankakarolo ba rwetseng ditopo hore ba eme mmoho.
Kopa bankakarolo ba rwetseng dieta tse kwalehileng hore ba eme mmoho.
(TEMOSO: Fetola ketsahalo ena ho ya ka sehla le mefuta ya dieta tseo bankakarolo ba di rwetseng.)
Hang ha bankakarolo ba le dihlotshwaneng, buisanang ka dipotso tse latelang:
Ke sehlotshwana sefe se nang le batho ba bangata ho feta?
Ke sehlotshwana sefe se nang le batho ba mmalwa ho feta?
Ke dihlotshwana dife tse nang le batho ba lekanang ka lenane?

- ◆ 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.

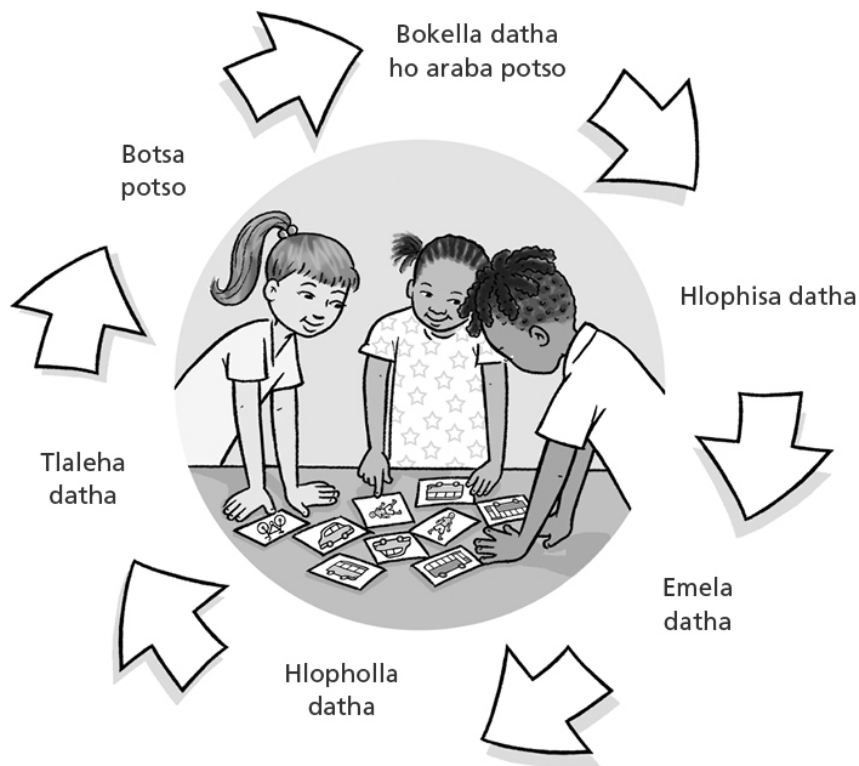


People often refer to the process of Data Handling as a cycle because the events or activities that are involved are repeated in the same sequence for each new question that is to be answered.

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.

- ◆ Hlalosa hore seo bankakarolo ba se entseng ke ho hlopha/hlophisa dintho ho ya ka lekgetha le le leng le itseng le tshwanang le hore ena ke karolo ya bohlokwa haholo ya ho Sebetsa ka Datha.
- ◆ Hatella bohlokwa ba ho hlopha le ho hlophisa Kereiting ya R.
- ◆ Buisanang ka mefuta ya diketsahalo tsa ho hlopha tseo baithuti ba ka di etsang Kereiting ya R.
- ◆ PPT: Saekele ya Ho Sebetsa ka Datha le dikahare tsa kakaretso ho tswa ho *Buka ya Mosebetsi ya Monkakarolo*.
- ◆ Buisanang ka mohato ka mong ho e tsheletseng ya saekele ya ho Sebetsa ka Datha.

Karolong ena, o tla ithuta ka saekele ya Ho Sebetsa ka Datha e le mokgwatshebetso wa ho rarolla mathata. Ho Sebetsa ka Datha Kereiting ya R ho tsepame ho ho bokella, ho hlopha, ho hlophisa, ho emela le ho manolla tlhahisoleseding e mabapi le batho kapa dintho. Lebakabaka la ho bokella datha ke ho araba potso kapa ho rarolla bothata.



Hangata batho ba bua ka mokgwatshebetso wa ho Sebetsa ka Datha ka ho o bitsa saekele hobane diketsahalo tse etsahalang moo di phetaphetwa ka tatelano e tshwanang bakeng sa potso ka nngwe e ntjha e arajwang.

1. **Botsa potso:** Baithuti ba etsa qeto ya hore ba batla ho fumana dintlha mabapi le eng. Lena ke lona lebaka la ho bokella datha kapa tlhahisoleseding e itseng. Kgwele e hokanyang datha mmoho ke lebaka la ho bokella datha kapa tlhahisoleseding e itseng.
2. **Bokella datha:** Baithuti ba etsa qeto ya kamoo ba batlang ho bokella datha ho ya ka potso kapa bothata.

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. **Hlophisa datha:** Baithuti ba lokisa le ho hlophisa datha ka dihlopha ho ya ka makgetha. Bakeng sa ho araba dipotso le ho etsa diqeto tsa kamoo ba tla bontsha datha eo ba e bokeletseng, diqeto di lokela ho etswa mabapi le kamoo dintho di lokelang ho hlophiswa.
4. **Ho emela datha:** Baithuti ba sibolla ditsela tse fapaneng tsa ho bontsha kapa ho hlahisa tlhahisoleseding eo ba e bokelletseng.
5. **Hlopholla datha:** Baithuti ba hlalosa le ho bapisa datha e bontshitsweng.
6. **Tlaleho mabapi le datha:** Baithuti ba araba potso e neng e botsitswe pele.

Dintho di ka hlotjhwa le ho hlophiswa (tsa bewa ka dihlopha) ho ya ka ditshwano tsa tsona, tse jwalo ka mmala, diphoofolo, dijalo. Ha baithuti ba tseba haholo ka makgetha a dintho, le ditshwano le diphapang tsa tsona, ba tla kgona ho etsa dihlopha tse fapaneng tsa tlhophiso.



Video ya 1

Tataiso ya Diketsahalo: Kotara ya 1, Beke ya 10, Letsatsi la 4 #5-9 (maqephe 180-183)

Shebellang video ya tlelase ha e bopa le ho manolla kerafo ya ditshwantsho bakeng sa ho emela maemo a lehodimo.

Buisanang kamoo titjhere a hlahisang mohato ka mong ka hara thuto. Lemohang mefuta ya dipotso tseo a di sebedisang le kamoo a hatellang tshebediso ya tlotlontswe e nepahetseng ka teng.

Dinoutso tsa motsamaisi

- ◆ Hlakisa bohlokwa ba ho sebedisa dikotwana tsa pampiri tse boholo bo lekanang, le qala tlase mme le bea sekotwana sa pampiri ka seng hantle mabapa le sa pele. Etsa bonnete ba hore ho na le bophahamo bo lekaneng bakeng sa kholomo e telele ka ho fetisisa.
- ◆ PPT: Difoto tsa dikotwana tsa pampiri tse beilweng ka nepo kerafong ya ditshwantsho esitana le mehlala ya dikerafo tsa ditshwantsho tse bopilweng ka ho fosahala.
Kamora ketsahalo, hlalosa hore:
Dikerafo tsa ditshwantsho – kamehla di hlophisa madatha ho tloha tlase ho isa hodimo.
Aha keriti ele hore ho be le neeletsano ya dintho tse pedi pakeng tsa ntho ka nngwe e ho keriti.
Sena se nolofaetsa baithuti ho bapisa makgetha a kholomong ka nngwe.
- ◆ Ikgopotseng ka mehato e fapaneng ya saekele ya Ho Sebetsa ka Datha eo bankakarolo ba fetileng ho yona.
- ◆ Ere bankakarolo ba ye ho **Ketsahalo 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.

Ketsahalo ena e latelang e tla o fetisa mehatong e tsheletseng ya saekele ya Ho Sebetsa ka Datha.



Ketsahalo ya 3

Nka dibadi tse latelang tsa diphoofolo ho tswa ho *Khiti ya Disebediswa* ya Lenaneo la Mmetse: matata a mararo, dikgoho tse pedi le pere e le nngwe.

1. Nahanisisa potso ena: Na ho na le matata a mangata ho feta kapa dikgoho tse ngata ho feta sehlopheng seo?
2. Hlopha le ho bokella datha: Hlophisa diphoofolo tsa hao ka dihlotshwana mme ebe le buisana ka tse latelang le molekane:
 - ◆ Na jwale o se o bona hore ebe ho na le matata a mangata ho feta dikgoho?
 - ◆ O ka lekola jwang?
3. Ho emela datha: Phetla ho keriti e leqephe la 21. Beang diphoofolo tsa mofuta o le mong e le nngwe ka hodima e nngwe kholomong o qala tlase keriting.
4. Manolla le ho tlaleha mabapi le datha: Shebang dikholomo tsa lona mme le buisane le molekane:
 - ◆ Na ho na le matata a mangata kapa dikgoho tse ngata ho feta? O tseba jwang?
 - ◆ Ke kholomo efe e nang le diphoofolo tse ngata ho feta?
 - ◆ Ke kholomo efe e nang le diphoofolo tse mmalwa ho feta?
 - ◆ Na ho na le lenane le lekanang la mofuta ofe kapa ofe wa phoofolo?

Shebang maqephe a 184–187 a *Tataiso ya Diketsahalo: Kotara ya 1* mme le buisane kamoo ketsahalo ena e ka tsebiswang baithuti. Shebang maqephe a 212–219 a *Tataiso ya Mareo* ho bala haholwanyane ka Ho Sebetsa ka Datha. Lemoha dipotso tse loketseng le tlotlontswe e tsamaelanang le ho ruta le ho ithuta ho Sebetsa ka Datha Kereiting ya R.

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**.

Karolo ya 2: Dinomoro, Matshwao le Dikamano

Hora e 1

Dinoutso tsa motsamaisi

- ◆ Hlalosa hore tsepamiso ya Kotara ya 2 Dibeke tsa 1 le 2 ke Dinomoro, Matshwao le Dikamano. Karolo ena e ikemiseditse ho tebisa tsebo le kutlwisiso ya bankakarolo ya nomoro le kamoo e rutwang le ho ithutwa ka teng ho Kotara ya 2.
- ◆ Ere bankakarolo ba shebe maqephe a 114–123 a *Tataiso ya Mareo*.
- ◆ Ere bankakarolo ba sebetse ka dihlotshwana ho phethela **Ketsahalo ya 4**. Kopa motho a le mong sehlotshwaneng ka seng ho tla abelana ka mehopolo ya bona.

Tsepamiso ya Kotara ya 2 Dibeke tsa 1 le 2 ke Dinomoro, Matshwao le Dikamano.

Kotara ya 2 Tjhebokakaretso ya Dikahare: Dinomoro, Matshwao le Dikamano



Ketsahalo ya 4

Balang Karolo ya Dikahare ya Dinomoro, Matshwao le Dikamano maqepheng a 114–123 a *Tataiso ya Mareo*.

1. Ke mareo afe a rutwang ho Kotara ya 2?

2. Ke eng eo Lenaneo la Mmetse le e eketsang ho dikahare tsa SLTK?

Tataiso ya Diketsahalo: Kotara ya 2

Dinoutso tsa motsamaisi

- ◆ Fana ka dikhopi tsa *Tataiso ya Diketsahalo: Kotara ya 2* ho bankakarolo kaofela.
- ◆ Ere bankakarolo ba shebe leqephe la Dikahare le maqephe a 6–17 ho bona hore ebe 'Selelekela' se ho Kotara ya 2 se tshwana le se ho Kotara ya 1.
- ◆ Ere bankakarolo ba phetle 'Tjhebokakaretso ya Dikahare: Kotara ya 2' (maqephe a 18–21).
- ◆ Bankakarolo ba phethela **Ketsahalo 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.

Tataiso ya Diketsahalo: Kotara ya 2 e fa matitjhere ditlhahiso tsa beke le beke bakeng sa ho ruta le ho ithuta Mmetse.

Shebang leqephe la Dikahare le maqephe a 6–17 a *Tataiso ya Diketsahalo: Kotara ya 2*. Le tla bona hore ‘Selelekela’ se ho Kotara ya 2 se tshwana le se ho Kotara ya 1.

Ho Ketsahalo ya 4 le ile la hlwaya lenane la mareo a lokelang ho rutwa ho Kotara ya 2. Ho Ketsahalo ya 5 le tla etsa kgokahanyo pakeng tsa mareo ana le Tsebo e Ntjha bakeng sa dibeke tse pedi tsa pele tsa *Tataiso ya Diketsahalo: Kotara ya 2*.



Ketsahalo ya 5

Shebang ho ‘Tjhebokakaretso ya Dikahare: Kotara ya 2’ (*Tataiso ya Diketsahalo: Kotara ya 2*, maqephe a 18–21).

1. Ke tsebo e ntjha efe e tsebiswang baithuti ho Karolo ya Dikahare ya Dinomoro, Matshwao le Dikamano?

-
2. Kgutlelang ho Ketsahalo ya 4 mme le hlakise kapa ho dikanyetsa mareo a rutilweng.

Ho utlwisisa dinomoro

Dinoutso tsa motsamaisi

- ◆ Lekola mokgwatlwaelo oo bankakarolo ba o sebedisitseng ho tsebisa dinomoro 1, 2 le 3 ho baithuti ka ditlhaseng tsa bona.
- ◆ Kopa bankakarolo ho ikgopotsa tseo ba di entseng ka phaposeng ya borutelo le ho phethela **Ketsahalo ya 6**.
- ◆ Hlalosa hore ho Kotara ya 2 ba tla be ba tsepamitse maikutlo ho dinomoro tsa 4 le 5, ba ntse ba sebedisa mokgwatlwaelo ona ho tsebisa dinomoro tsena.
- ◆ Bala diketsahalo tsa tlelase yohle tse tsepameng ho nomoro ya 4 Bekeng ya 1: *Tataiso ya Diketsahalo: Kotara ya 2*: leqephe la 25 (Letsatsi la 1 #4), leqephe la 27 (Letsatsi la 2 #5), leqephe la 29 (Letsatsi la 3 #4), leqephe la 31 (Letsatsi la 4 #4 le Letsatsi la 5 #4).

Ho kotara ya 1, dinomoro tsa 1, 2 le 3 di ile tsa rutwa. Le ile la sebedisa mokgwatlwaelo o tshwanang bakeng sa nomoro ka nngwe e rutilweng, le eketsa nngwe ka hodima nomoro nako le nako ha ho tsebiswa nomoro e ntjha. Ho kotare ya 2 Beke ya 1, tsepamiso e ho kgopolo ya nomoro hape. Baithuti ba tsebiswa nomoro ya 4, ho sebediswa mokgwatlwaelo o tshwanang le wa dinomoro 1, 2 le 3.



Activity 6

Refer to 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).

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>		



Ketsahalo ya 6

Shebang diketsahalo tsa tlelase yohle tse tsepamisitsweng ho nomoro ya 4 ho Beke ya 1: *Tataiso ya Diketsahalo: Kotara ya 2: leqephe la 25 (Letsatsi la 1 #4), leqephe la 27 (Letsatsi la 2 #5), leqephe la 29 (Letsatsi la 3 #4), leqephe la 31 (Letsatsi la 4 #4 le Letsatsi la 5 #4).*

1. Buisanang kamoo nomoro ya '4' e tsebiswang ka teng.

2. Nahana ka diketso tsa phaposing ya hao ya borutelo le kamoo tlwaelo ena e ntseng e sebetsa ka teng ho fihlela jwale. Tlatsa tafole ena.

Ketsahalo	Ke eng e sebeditseng hantle?	Ke eng e sa sebetsang hantle hakaalo?
Ho pheta pale le ho aha frizi ya dinomoro		
Ho tshwantshisa pale		
Ho bokella dintho bakeng sa karolo ya mmetse		
Ho nyalanya dintho le ditshwantsho, dikarete tsa matheba, matshwao a dinomoro le mantswe a dinomoro		
Ho sebedisa <i>Buka ya Diphoustara</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?

Tlotlontswe ya Mmetse

Dinoutso tsa motsamaisi

- ◆ Buisanang kamoo bankakarolo ba etsang mehlala ka ho sebedisa tlotlontswe ya mmetse e nepahetseng ka phaposeng ya borutelo.
- ◆ Ba bolelle hore ena ke karolo ya bohlokwa ya **ntlhatheo ya kgokahano**, le hore ka ho e sebedisa ka bobona, ba kgothaletsa baithuti ho sebedisa tlotlontswe ya mmetse.

Karolo ya ho ithuta mareo a matjha e kenyeletsa puo e ntjha. Baithuti ba hloka tlotlontswe bakeng sa ho bua le ho nahana ka mareo a mmetse (**ntlhatheo ya kgokahano**). O ka kgothaletsa baithuti ho sebedisa tlotlontswe ya mmetse ka ho e sebedisa le wena ha o bua le bona ka mareo a mmetse le ka ho fetola seo ba se buang mme o se etse puo ya mmetse.

Tjhelete

Dinoutso tsa motsamaisi

- ◆ Buisanang ka seo baithuti ba Kereiti ya R ba se hloakang ho ithuta ka tjhelete. Hatella hore tsepamiso e Kereiting ya R e ho ntshetseng pele temoho ya kamoo dikhoine tsa Afrika Borwa di shebehang ka teng, empa e seng ho boleng ba dikhoine.
- ◆ Mema bankakarolo ho abelana ka mefuta ya diketsahalo tseo ba fanang ka tsona diphaposeng tsa bona tsa borutelo tsa Kereiti ya R bakeng sa ho thusa baithuti ho utlwisisa sepheo sa tjhelete maphelong a bona a kamehla.
- ◆ Kamora **Ketsahalo ya 7**, buisanang ka mefuta ya dipotso tse bulehileng (tse dikarabo tse ngata) tseo matitjhere a ka di botsang ho thusa baithuti ho ithuta sepheo sa tjhelete jwaloka:
Re sebedisa tjhelete ho etsa eng?
Na kamehla re lefa ka tjhelete? Ke tsela efe e nngwe eo re ka lefelling dintho tseo re di rekang?

Ho Kotara ya 2 Beke ya 2 baithuti ba tsebiswa tjhelete. Baithuti ba Kereiti ya R ba qala ho ba le temoho mabapi le makgetha a tjhelete mme ba hloka menyetla ya ho sibolla hore dikhoine tsa nnete tsa Afrika Borwa di shebeha jwang.

Ketsahalo ya 7 e tsepame ho thuseng baithuti ho lemoha ditshwano le diphapang pakeng tsa dikhoine: boholo ba tsona, sebopelo le diphoofole tse dikhoineeng.



Ketsahalo ya 7



1. Ke dipotso dife tseo o ka di botsang baithuti ho ba thusa ho lemoha makgetha a fapaneng dikhoineeng tsena?

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. Ke tlotlontswe efe e ntjha eo o tlang ho e tsebisa?

Dinoutso tsa motsamaisi

- ◆ Ere bankakarolo ba shebe diketsahalo tsa tlelase yohle le diketsahalo tsa dihlotshwana ho maqephe a 40–51 a *Tataiso ya Diketsahalo: Kotara ya 2*.
- ◆ Ere bankakarolo ba sebetse ka dihlotshwana ho phethela **Ketsahalo ya 8**. Kopa motho a le mong ho tswa sehlotshwaneng ka seng ho tlaleha ka dipuisano tsa bona.
- ◆ Ba bontshe dithempleiti tsa tjehele (Tataiso ya Diketsahalo: Kotara ya 2, maqephe a 216–217). Kopa ditlhahiso tsa kamoo di ka sebediswang ka teng.

Ntho ya pele ke hore baithuti ba lokela ho kgona ho hlwaya le ho bolela mabitso a dikhoine pele ba ka lokela ho utlwisisa boleng ba tsona.

Baithuti ba hloka ho dula ba bontshwa sepheo sa tjehele. Matitjhere a ka thusa baithuti ho utlwisisa hore tjehele e sebediswa ho reka dintho tse kang dijo le diaparo le ho etsa dintho tse fapaneng tse kang ho nka maeto ka tekisi kapa bese. Ruta baithuti ka tjehele le sepheo sa yona ka ho aha lebenkele la papadi ka dikhoine le tjehele ya pampiri ya ho bapadisa le dintho tse ka rekwang.

Shebang diketsahalo tsa tlelase yohle le diketsahalo tsa dihlotshwana tse tsepamisitseng maikutlo tjeleteng ho maqephe a 40–51 a *Tataiso ya Diketsahalo: Kotara ya 2*. Sehlotshwaneng sa lona, phethelang Ketsahalo ya 8.



Ketsahalo ya 8

1. Ke mareo afe a tjehele a rutwang le ho ithutwa diketsahalong tsa tlelase yohle?

Ho elellwa le ho nyalanya dikhoine tsa Afrika Borwa, ho di hlophisa ho ya ka mmala le boholo.

2. Baithuti ba kgothaletswa jwang ho sibolla sepheo sa tjehele?

Tafole ya lebenkele e ruta baithuti hore re lefa tjehele bakeng sa dintho.

3. Titjhere o kgobokanya jwang tsebo ena e ntjha ho diketsahalo tsa dihlotshwana?

Ho hlopha le ho nyalanya dikhoine, ho taka ditshwantsho tsa dikhoine.

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.

Karolo ya 3: Sebaka le Sebopeliso (Jeometri) Hora e 1

Dinoutso tsa motsamaisi

- ◆ Karolo ena e atolosa puisano e mabapi le Sebaka le Sebopeliso (Jeometri) ho tswa ho Wekshopo ya 3 mme e keke ya nka nako e telele ho feta nako e boletsweng kaha sena e se tsebo e ntjha.
- ◆ Hlalosa hore tsepamiso ya Kotara ya 2 Beke ya 3 ke Sebaka le Sebopeliso (Jeometri).
- ◆ Ere bankakarolo ba shebe maqephe a 126–131 a *Tataiso ya Mareo*.
- ◆ Ere bankakarolo ba sebetse ka dihlotshwana ho phethela **Ketsahalo ya 9**. Kopa motho a le mong ho tswa sehlotshwaneng ka seng ho abelana ka mehopolo ya bona.

Tsepamiso ya Kotara ya 2 Beke ya 3 ke Sebaka le Sebopeliso (Jeometri).

Kotara ya 2 Tjhebokakaretso ya Dikahare: Sebaka le Sebopeliso (Jeometri)

Shebang maqephe a 126–131 a *Tataiso ya Mareo*.



Ketsahalo ya 9

1. Ke mareo afe a Sebaka le Sebopeliso (Jeometri) a rutwang ho Kotara ya 2?

2. Lenaneo la Mmetse le eketsa eng ho dikahare tsa SLTK?

Dikgutlotharo

Dinoutso tsa motsamaisi

- ◆ Ere bankakarolo ba shebe Letsatsi la 2 #4 leqepheng la 59 la *Tataiso ya Diketsahalo: Kotara ya 2*.
- ◆ Kopa bankakarolo ho phethela **Ketsahalo ya 10** dihlotshwaneng tsa bona. Bankakarolo ba abelana ka dikarabelo tsa bona sehlopheng se seholo.
- ◆ Buisanang ka bohlokwa ba ho fa baithuti menyetla ya ho hlopha le ho hlophisa dibopeliso tse fapaneng ho ba thusa ho ithuta ka makgetha a dikgutlotharo, mohl. lenane la mahlakore, na mahlakore ao a otlohile kapa a kgopame, le lenane la dihuku.

Ho Kotara ya 2 Beke ya 3, baithuti ba tswela pele ka tshibollo ya bona ya dibopeliso tsa mahlakore a mabedi ha ba ntse ba di hlalosa, ba di hlopha le ho di bapisa. Karolong ena le tla tebisa kutlwisiso ya lona ya makgetha a dikgutlotharo.

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?

Shebang ho Letsatsi la 2 #4 leqepheng la 59 la *Tataiso ya Diketsahalo: Kotara ya 2* mme le phethele Ketsahalo ya 10 sehlotshwaneng sa lona.



Ketsahalo ya 10

'Kgutlotharo e fapana jwang le dibopeho tse ding ka phaposing ya borutelo?' O ka lebella dikarabo dife ho baithuti ba hao?

E na le mahlakore/mela/dihuku tse tharo.

Ha baithuti ba fuwa menyetla ya ho hlopha le ho bea ka dihlopha dibopeho tse fapaneng, ba lokela ho tsepamisa maikutlo ho makgetha a dibopeho ho etsa diqeto tsa bona, mohl. lenane la mahlakore, ebang mahlakore a otlohile kapa a kgopame le lenane la dihuku.

Dinoutso tsa motsamaisi

- ◆ Hlalosa hore Lenaneo la Mmetse le sebedisa dipale ho ruta mareo a mmetse ka tsela e nang le molemo.
- ◆ Tshwantshisang pale ena, *Ba hula ba nna ba hula*, e tswang ho Beke ya 3 (*Tataiso ya Diketsahalo: Kotara ya 2*, leqephe la 63 le la 199).
- ◆ Kopa bankakarolo ho phethela **Ketsahalo ya 11** dihlotshwaneng tsa bona.
- ◆ Ha sehlotshwana ka seng se tlaleha, ngola dipotso tseo ba di hlaisang pampiring ya fliptjhate.

Dipale ke tsela e ntle ya ho tsebisa mareo a dibopeho ho baithuti. Mamelang pale ya *Ba hula ba nna ba hula*, e tswang ho Beke ya 3 (*Tataiso ya Diketsahalo: Kotara ya 2*, leqephe la 63 le la 199) ha e phetwa ke motsamaisi wa lona mme le phethele Ketsahalo ya 11 sehlotshwaneng sa lona.



Ketsahalo ya 11

1. Ke dipotso dife tseo o ka di botsang baithuti ho ba thusa ho ithuta haholwanyane ka makgetha a dikgutlotharo?
-
-

Mehlala:

O ka mpoella eng mabapi le mela/dihuku/dintlha tsa sebopeho sena?

O tseba jwang hore ke kgutlotharo?

Ke eng se tshwanang/fapaneng mabapi le kgutlotharo le kgutlonnetsepa?

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. Na boholo ba dipotso tsena ke dipotso tse dikarabo di ngata kapa dipotso tse karabo e nngwe?
-

Temoso: Sebedisa *Tataiso ya Diketsahalo: Kotara ya 1 le Kotara ya 2* ho o thusa ho rala bakeng sa ho ruta dibekeng tsena. Mehopolo le ditlhaliso tsa diketsahalo ke tataiso le mohlodi. Lokisa sebaka sa mmetse se nang le tsepamiso ya dikahare bakeng sa beke ka nngwe.

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 (Week 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.

Karolo ya 4: Ho etsa moralo bakeng sa ho ruta

Dihora tse 2

Dinoutso tsa motsamaisi

- ◆ Ere bankakarolo ba shebe Sehloathiso A: Kotara ya 1 le 2 Kakaretso ya Dikahare tsa Beke le beke: Kotara ya 1 (Beke ya 10) le Kotara ya 2 (Dibeke tsa 1-3).
- ◆ Bala dikarolo tsa diketsahalo tsa tselase yohle, tse tataiswang ke titjhere le tsa diteisheneng tsa tshebetso.
- ◆ Ere bankakarolo ba sebetse ka dihlopha ho phethela **Ketsahalo ya 12**.



Video ya 2

Tataiso ya Diketsahalo: Kotara ya 2, Beke ya 1 (leqephe la 33)

Shebellang video ya diketsahalo e tataiswang ke titjhere. Lemohang kamoo titjhere a sebedisang dipotso ho susumetsa le ho tataisa baithuti nakong ya ketsahalo.

Buisanang kamoo le ileng la tsamaisa diketsahalo tse tataiswang ke titjhere ho Kotara ya 1.

Na ho na le mathata ao le kopaneng le ona? Ebang ho jwalo, ke mawa afe ao le a sebedisitseng ho a rarolla?

Dikotara tsa 1 le 2 Kakaretso ya Dikahare (Kotara ya 1 (Beke ya 10) le Kotara ya 2 (Dibeke tsa 1-3))

Sehloathiso A: Kotara ya 1 le 2 Kakaretso ya Dikahare tsa Beke le beke: Kotara ya 1 (Beke ya 10) le Kotara ya 2 (Dibeke tsa 1-3) di hlalosa Tsepamiso ya Karolo ya Dikahare ya sehlooho bakeng sa beke ka nngwe, dihlooho tse lokelang ho rutwa, tsebo e ntjha le tsepamiso ya diketso bakeng sa beke ka nngwe, le diketsahalo tse sisintsweng bakeng sa tselase yohle, tse tataiswang ke titjhere le mosebetsi wa sehlopha se ikemetseng bakeng sa beke.



Ketsahalo ya 12

Sheba Sehloathiso A: Kotara ya 1 le 2 Kakaretso ya Dikahare tsa Beke le beke: Kotara ya 1 (Beke ya 10) le Kotara ya 2 (Dibeke tsa 1-3). Araba dipotso.

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.

Dipotso	Beke ya 10 Kotara ya 1	Beke ya 1 Kotara ya 2	Beke ya 2 Kotara ya 2	Beke ya 3 Kotara ya 2
Tsepamiso ya Karolo ya Dikahare ke efe bakeng sa beke ena?	Ho Sebetsa ka Datha	Dinomoro, Matshwao le Dikamano ('Dinomoro, Ditshebetso le Dikamano')	Dinomoro, Matshwao le Dikamano ('Dinomoro, Ditshebetso le Dikamano')	Sebaka le Sebopoho (Jeometri)
Mareo a sehlooho ke afe ao baithuti ba tla beng ba ithuta ona?	Ho bokella, ho hlophisa le ho bea datha ka dihlopha Ho emela datha Ho tlaleha ka datha	Matshwao a dinomoro le mantswe a dinomoro Ho bea dinomoro ka tatelano	Tjhelete Dinomoro tsa boemo Dihlopha tse lekanang Ho bala dintho	Boemo, tlwaetso le ditjhebo Dibopoho tsa 2-D
Ke tsebo efe e ntjha e tla tsebiswa?	Bokella, hlophisa le ho emela dipokello tsa dintho Buisanang le ho tlaleha ka dipokello tse hlophilweng tsa dintho	Ho feta ho, mmalwa ho, lekana le Nomoro ya 4	Dikhoine tsa Afrika Borwa Dinomoro tsa boemo -pele ho isa ho -bone Ho etsa dihlopha hore di lekane le 4 Ho bala dintho 1-6	Ho bala ka molomo 1-15 Ho bala dintho 1-7 Boemo: ka tlase
Ke bokgoni bofe bo ikwetliswang?	Ho bala ka molomo 1-10 Ho bala dintho 1-5 Ho hlahlamanya dinomoro 1-3 Kgopolo ya dinomoro 1-3 Pele ho le ka morao ho Kopolla dipaterone Ho rarolla bothata	Ho bala ka molomo 1-10 le 5-1 Ho bala dintho 1-5 Ho hlahlamanya dinomoro 1-3 Kgopolo ya dinomoro 1-3	Ho bala ka molomo 1-10 le 5-1 Ho bala dintho 1-5 Ho bea dinomoro ka tatelano 1-4 Kgopolo ya dinomoro 1-4 E kgolo ka ho fetisisa ho isa ho e nyane ka ho fetisisa, e nyane ka ho fetisisa ho isa ho e kgolo ka ho fetisisa	Boemo: pela, pakeng tsa, ka pela, ka mora, ka hodima Tshupiso: pele, morao Kgopolo ya dinomoro 1-4 Ho hlahlamanya dinomoro 1-4 Ho bala o kgutlela morao 5-1 Dibopoho: sedikadikwe, kgutlonnetsepa, kgutlotharo

Tataiso ya Diketsahalo: Kotara ya 1: Beke ya 10 le Tataiso ya Diketsahalo: Kotara ya 2: Dibeke tsa 1-3

Shebang ho Beke ya 10 ho *Tataiso ya Diketsahalo: Kotara ya 1* le Dibeke tsa 1, 2 le 3 ho *Tataiso ya Diketsahalo: Kotara ya 2*. Phethelang Ketsahalo ya 13 sehlotswaneng sa lona.



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.



Ketsahalo ya 13

Fumana Beke ya 10 ho *Tataiso ya Diketsahalo: Kotara ya 1*. Araba dipotso.

1. Tsepamiso ya Karolo ya Dikahare ke eng bakeng sa beke?
2. Ke dihlooho dife le tsebo e ntjha tse rutwang bekeng ena?
3. Dikahare tsa 'Ho etsa' di hokahana jwang le beke e fetileng?
4. O hloka eng bakeng sa ho itokisetsa pele o ruta bekeng ena?
5. Bala diketsahalo tsa tlelase yohle le diketsahalo tsa dihlotshwana.
6. Buisanang dihlotshwaneng tsa lona kamoo le tlang ho etsa moralo le ho hlophisa tlelase ya lona bakeng sa beke ena ya ho ruta.
7. Sehlotshwaneng sa lona kgutlelang morao ho Beke ya 10 ho Sehlomathiso A. Nyalanyang diketsahalo tsa tlelase yohle le diketsahalo tsa dihlotshwana ho Beke ya 10 ya *Tataiso ya Diketsahalo: Kotara ya 1* ho Kakaretso ya Dikahare tsa Beke le beke ho Sehlomathiso A.



Ketsahalo ya 14

Batla Dibeke tsa 1, 2 le 3 ho *Tataiso ya Diketsahalo: Kotara ya 2*. Araba dipotso.

1. Tsepamiso ya Karolo ya Dikahare ke efe bakeng sa beke ka nngwe?
2. Ke dihlooho dife le tsebo e ntjha tse rutwang bekeng ka nngwe?
3. Dikahare tsa 'Ho etsa' di hokahana jwang le beke e fetileng?
4. O hloka eng hore o itokise pele o ruta bekeng ka nngwe?
5. Bala diketsahalo tsa tlelase yohle le diketsahalo tsa dihlotshwana.
6. Buisanang dihlotshwaneng tsa lona kamoo le tlang ho etsa moralo le ho hlophisa tlelase ya lona bakeng sa dibeke tsena tse tharo tsa ho ruta.
7. Sehlotshwaneng sa lona kgutlelang morao ho Dibeke tsa 1–3 ho Sehlomathiso A. Nyalanyang diketsahalo tsa tlelase yohle le diketsahalo tsa dihlotshwana ho Dibeke tsa 1–3 tsa *Tataiso ya Diketsahalo: Kotara ya 2* ho Kakaretso ya Dikahare tsa Beke le beke ho Sehlomathiso A.



Hopolang hore leihlo le bolokong bo fifaditsweng qetellong ya diketsahalo tse tataiswang ke titjhere (**Lekola hore baithuti ba kgona ho**) le re hopotsa hore re hloka ho shebella baithuti ha ba ntse ba sebetsa, mme re lokela ho mamela ka hloko ha ba ntse ba bua le rona le ha ba bua le bomphato ba bona.

Dula o beile ka hloohong moithuti ka mong mme hang ha baithuti ba tsamaya ha sekolo se etswa, ngola fatshe tseo o di lemohileng ka hara buka e kgethetsweng ditemoho e nang le sebaka bakeng sa dinoutso tsa moithuti ka mong.

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

Diketsahalo tsa ho kwala

Dinoutso tsa motsamaisi

- ◆ **Dithuto tse ithutilweng:** Ere bankakarolo ba nahane ka seo ba ithutileng sona nakong ya wekshopo mme ba phethele **Ketsahalo ya 14** ka bomong.
- ◆ **Mosebetsi wa kgutlela le yona sekolong:** Bala mosebetsi ona. Botsa hore ebe ho na le ho sa hlakang le ho hlokang tlhaloso e fetang. Ba bontshe kamoo direkoto tsa ditemoho le tsa tekanyetso le maano di lokelang ho ba teng mohatong ona wa selemo. Botsa kamoo bankakarolo ba di bolokang ka teng. Kopa hore ba tle le mehlala ha ba etla ho Wekshopo ya 5.
- ◆ **Tlhahlobo:** Fana ka dikhopi tsa Foromo ya Tlhahlobo ya Wekshopo mme o re bankakarolo ba tlatse foromo eo.
- ◆ **Wekshopo e latelang:** Fana ka matsatsi bakeng sa wekshopo e latelang mme o kwale wekshopo.



Ketsahalo ya 15

Dithuto tse ithutilweng: Nahana ka seo o ithutileng sona nakong ya wekshopo mme o tlatse tafole ena.

Dintho tseo ke seng ke di etsa tse sebetsang hantle	Mehopolo e metjha eo nka lakatsang ho e leka



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.



Mosebetsi wa kgutlela le yona sekolong

1. Tswela pele ka ditemoho tsa hao ho aha setshwantsho se felletseng ka moithuti ka mong.
2. Nakong ya diketsahalo tse tataiswang ke titjhere qetella karolo ya *Lekola hore baithuti ba kgona ho* (kamora ketsahalo e tataiswang ke titjhere bekeng ka nngwe) bakeng sa moithuti ka mong ya lemohuwang.
3. Etsa khopi ya Rekoto ya Mohlala ya Tekanyetso e Tswelang ho *Tataiso ya Diketsahalo: Kotara ya 1* (maqephe a 190–193).
4. Sebedisa tlhahisoleseding e bokelletsweng dinoutsong tsa hao tsa ditemoho ho fihla jwale mme o rekote kgatelopele ya moithuti ka mong. (Hopola hore dipaterone tsa kgatelopele di lokela ho rekotuwa nako le nako.)
5. Sebedisa *Tataiso ya Diketsahalo: Kotara ya 1* (Beke ya 10) le *Tataiso ya Diketsahalo: Kotara ya 2* (Dibeke tsa 1–3) ho rera le ho kenya tshebetsong Kotara ya 1 Beke ya 10 le Kotara ya 2 Dibeke tsa 1–3 tsa Lenaneo la Mmetse, ho kenyeletsa ho etsa sebaka sa mmetse ka tsepamo ho lereo le itseng bakeng sa beke ka nngwe.
6. Ngola tlhahlobo ya tse sebeditseng hantle, tse sa sebetsang hantle le seo o ka beng o se entse ka tsela e fapaneng ho ntlafatsa ho ruta le ho ithuta. Tloo le tlaleho ya hao ya tlhahlobo ho wekshopo e latelang.

Tlhahlobo

Tlatsa Foromo ya Tlhahlobo.

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.			

SEHLOMATHISO A: KOTARA YA 1 LE 2 KAKARETISO YA DIKAHARE TSA BEKE LE BEKE: KOTARA YA 1 (BEKE YA 10) LE KOTARA YA 2 (DIBEKE TSA 1-3)

Kotara ya 1: Moralo wa Ketsahalo

Beke ya 10				
KAROLO YA DIKAHARE: HO SEBETSA KA DATHA				
SEHLOOHO: Bokella le ho hlopha dintho, emela dipokello tse hlophilweng tsa dintho, buisanang le ho tlaleha ka dipokello tsa dintho tse hlophisitsweng				
TSEBISA TSEBO E NTJHA: Bokella, hlopha le ho emela dipokello tsa dintho (maemo a lehodimo); buisanang le ho tlaleha mabapi le dipokello tse hlophisitsweng; bopa paterone ya hao				
HO ETSA: Ho bala ka molomo 1-10, ho bala o kgutlela morao ho tloha ho 5, ho hlalamanya dinomoro 1-3, ho bala dintho 1-5, kgopolo ya dinomoro 1-3, kopolla dipaterone, mawa a ho rarolla bothata				
Diketsahalo tsa tlelase yohle		Ketsahalo e tataiswang ke titjhere	Diketsahalo tsa diteisheneng tsa tshebetso	
Letsatsi la 1	Ho hlopha le ho bea ka dihlopha, dintho tse lahlwang.	Ho bala ka molomo. Thetsa le ho bala – neeletsano pakeng tsa ntho tse pedi. Diketsahalo tsa ho hlophisa le ho bea ka dihlopha – diphoofole. Ho emela le ho hlalosa datha.	Ketsahalo ya 1 Ketsahalo ya 2 Ketsahalo ya 3 Ketsahalo ya 4	Ho hlopha matlakala. Ho hlopha mebala. Ho hlopha diterei, dintho tsa tlhaho. Kopolla dipaterone o sebedisa dintho tse tshwarehang mme ebe o bopa paterone ya hao.
Letsatsi la 2	Pokello ya datha, ho hlopha dintho tse aparwang.			
Letsatsi la 3	Ho hlopha le ho bea ka dihlopha, papadi ya dihlopha.			
Letsatsi la 4	Sebedisa datha e bokelletsweng puisanong ya maemo a lehodimo, emela le ho manolla hore ke matsatsi a makae moo letsatsi le neng le tjabile, pula e neng e na, jj.			
Letsatsi la 5	Pokello ya datha ya maemo a lehodimo, ho emela le ho manolla.			

Kotara ya 2: Moralo wa Ketsahalo

Beke ya 1				
KAROLO YA DIKAHARE: DINOMORO, MATSHWAO LE DIKAMANO				
SEHLOOHO: Lemoha matshwao a dinomoro le mantwe a dinomoro, hlalosa, hlalamanya le ho bapisa dinomoro				
TSEBISA TSEBO E NTJHA: Ngata ho feta/mmalwa ho feta/lekana le, ho tsebisa nomoro ya 4				
HO ETSA: Ho bala ka molomo 1-10, ho hlalamanya dinomoro 1-3, ho bala dintho 1-5, ho hatella kgopolo ya dinomoro 1-3				
Diketsahalo tsa tlelase yohle		Ketsahalo e tataiswang ke titjhere	Diketsahalo tsa diteisheneng tsa tshebetso	
Letsatsi la 1	Tsebisa 4 (dithuhlo).	Ho bala dintho 1-5. Ho nyalanya dintho le dikarete tsa matheba a dinomoro, matshwao le mantwe a dinomoro 1-4. Hlophisa dibadi ho nyalanya le dikarete tsa matheba. Ikwetlisa ka ngata ho feta, mmalwa ho feta, lekana. Ngola nomoro ya 4 (jwaloka nomoro ya 1 ho isa ho 3).	Ketsahalo ya 1 Ketsahalo ya 2 Ketsahalo ya 3 Ketsahalo ya 4	Mmata wa hlama ya ho bapala wa 4 (jwaloka dinomoro tse fetileng). Ketsahalo ya diphazele tse hlophisang dinomoro ho isa ho 4 (e bopa setshwantsho). Ho nyalanya matshwao a dinomoro, mantwe le dintho tse tshwarehang isa ho 4. Diphazele tsa dinomoro (ha ho mantwe a dinomoro).
Letsatsi la 2	Tsebisa ngata ho/ka tlase ho/lekana le, tafole ya mmetse.			
Letsatsi la 3	Hatella 1-4, dikarete tsa matheba le ho bea ka tatelano.			
Letsatsi la 4	Hatella 1-4, diboloko tsa <i>Unifix</i> le dihupu.			
Letsatsi la 5	Hatella nomoro ya 4, Phoustara 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.			

Beke ya 2				
KAROLO YA DIKAHARE: DINOMORO, MATSHWAO LE DIKAMANO				
SEHLOOHO: Tjhelete: bopa temoho ya dikhoine tsa Afrika Borwa				
TSEBISA TSEBO E NTJHA: Dikhoine tsa Afrika Borwa, dinomoro tsa boemo – pele ho isa ho -bone, ho etsa dihlopha tse lekanang di tshwane le 4, ho bala dintho 1–6				
HO E TSA: Ho bala ka molomo 1–10 le 5–1, ho bea dinomoro ka tatelano 1–4, hatella kgopolo ya dinomoro 1–4, kgolo ho fetisisa ho isa ho nyane ho fetisisa/nyane ho fetisisa ho isa ho kgolo ho fetisisa				
Diketsahalo tsa tlelase yohle		Ketsahalo e tataiswang ke titjhere	Diketsahalo tsa diteisheneng tsa tshebetso	
Letsatsi la 1	Tsebisa dikhoine tsa Afrika Borwa (disente le diranta), Phoustara ya 7.	Kgopolo ya dinomoro 1–4. Ho lekanyetsa. Tsukutla mme o arole ka 4. Dikhoine tsa Afrika Borwa – nyalanya dikhoine le 'dintho tse ka lebenkeleng'. Sebedisa dikhoine tse sehilweng; ho hlopha, ho bea ka tatelano, ho nyalanya. Etsa dihlopha tse lekanang le 4 – o sebedisa dibadi.	Ketsahalo ya 1	Iketsetse khoine (fana ka sebopeho sa sedikadikwe).
Letsatsi la 2	Tafole ya Mmetse – ho reka, dinomoro tsa boemo -pele ho isa ho -bone.		Ketsahalo ya 2	Seboko sa dinomoro – ho hlahlamanya dinomoro 1–4.
Letsatsi la 3	Ho nyalanya dikarete tsa dinomoro/matheba le mantswe a dinomoro.		Ketsahalo ya 3	Taka kapa o manamise dintho ho nyalana le dinomoro 1–4.
Letsatsi la 4	Ho bea dinomoro ka tatelano 1–4, ho reka.		Ketsahalo ya 4	Ketsahalo ya ho posa le sebedisa nomoro le mmala 1–4.
Letsatsi la 5	Ho rarolla bothata ho fihla ho 4 (Phoustara ya 7).			

Beke ya 3				
KAROLO YA DIKAHARE: SEBAKA LE SEBOPEHO (JEOMETRI)				
SEHLOOHO: Boemo, tlwaetso le ditjhebo; hlalosa, hlophisa le ho bapisa dibopeho tsa 2-D				
TSEBISA TSEBO E NTJHA: Boemo: ka tlase, ho bala ka molomo 1–15, ho bala dintho 1–7, tlwaetso le ditjhebo				
HO E TSA: Ho bala ka molomo 1–10 le 5–1; ho hlahlamanya dinomoro 1–4; hatella kgopolo ya dinomoro 1–4; bala o kgutlela morao 5–1; dibopeho: sedikadikwe, kgutlonnetsepa, kgutlotharo; boemo: ka pela, ka mora, ka hodimo, dipakeng, pela; tshupiso: ho ya pele, ho kgutlela morao				
Diketsahalo tsa tlelase yohle		Ketsahalo e tataiswang ke titjhere	Diketsahalo tsa diteisheneng tsa tshebetso	
Letsatsi la 1	Maemo, papadi ya dibopeho.	Ho bala. Sebedisa dibopeho ho bontsha nomoro e nepahetseng (1–4). Boemo: pela, dipakeng, ka pela, ka mora, ka hodimo, ka tlase. Tshupiso: ho ya pele, ho kgutlela morao.	Ketsahalo ya 1	Dikgutlotharo tsa mebala.
Letsatsi la 2	Hatella kgutlotharo.		Ketsahalo ya 2	Ketsahalo ya sehwele (seha o ntshe dikgutlotharo mme o kenye lenane le nepahetseng la mahlaku).
Letsatsi la 3	Boemo (pela, dipakeng, ka pela, ka mora, ka hodimo, ka tlase).		Ketsahalo ya 3	Terei ya ho hlophisa – ho ya ka mmala, sebopeho kapa boholo (lekgetha le le leng).
Letsatsi la 4	Hatella dibopeho kaofela tse entsweng, pale ya dibopeho.		Ketsahalo ya 4	Ho aha ditora ka diboloko tsa ho aha.
Letsatsi la 5	Ho latela tshupiso: Nka ya jwang ...? Phoustara ya 9. Tlwaetso le ditjhebo le sebedisa kolozi ya sebakadiswa.			

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?

Foromo ya Tlhahlobo ya Wekshopo ya 4

1. Na wekshopo ena e fihletse ditebello tsa hao?

2. O ithutile eng ho wekshopo ena se o thusitseng ka ho fetisisa?

3. Na ho na le seo o sa kang wa se rata kapa seo o ileng wa thatafallwa ke ho se utlwisisa?

4. O tla sebedisa jwang seo o ithutileng sona mona phaposeng ya hao ya borutelo ya Kereiti ya R?

5. Na o na le ditlhahiso tse itseng bakeng sa ho ntlafatsa diwekshopo tse ding tse tlang?
