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EDUCATION
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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 11 • Workshop 11
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 kotleho 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 eleventh 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 consolidate the understanding of the Maths content taught in Grade R and to continue assisting teachers to implement the Maths Programme in their classrooms. Participants will have the opportunity to reflect on their implementation of the Maths Programme and discuss their planning, teaching and assessment. They will also consider learner progress, and individual developmental and learning needs. Participants will reflect on appropriate assessment strategies for capturing learner progress. The workshop explores the content for Term 4 Weeks 4–6 and its classroom implementation.

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

Learning outcomes

- ◆ To deepen understanding of Grade R Mathematics content
- ◆ To reflect on classroom implementation of the Maths Programme
- ◆ To identify challenges and find solutions to implementing the Maths Programme
- ◆ To reflect on informal forms of assessment in Grade R
- ◆ To plan the Maths Programme content to be taught in Term 4 Weeks 4–6

Workshop content

- ◆ Opening and reflection (1 hour)
 - ◆ Session 1: Review of the Maths Content Areas (1 hour)
- TEA
- ◆ Session 2: Maths Content Area presentations (1 hour)
 - ◆ Session 3: Maths Content Area presentations (continued) (1 hour)
- LUNCH
- ◆ Session 4: Planning for teaching (1½ hours)
 - ◆ Closing activities (30 minutes)

Tjhebokakaretso

Sepheo

Ena ke ya leshome le motso o mong 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 kgobokanya kutlwisiso ya dikahare tsa Mmetse tse rutilweng Kereiting ya R le ho thusa matitjhere ho kenya tshebetsong Lenaneo la Mmetse ka diphaposing tsa bona tsa borutelo. Bankakarolo ba tla fumana monyetla wa ho ikgopotsa ka ho kenya tshebetsong Lenaneo la Mmetse le ho buisana ka ho rera, ho ruta le ditekanyetso tsa bona. Hape ba tla lemoha kgatelopele ya baithuti, le ditlhoko tsa ho ithuta le tsa ntshetsopele tsa moithuti ka mong. Bankakarolo ba tla ikgopotsa ka mawa a tekanyetso a lokelang bakeng sa ho rekota kgatelopele ya baithuti. Wekshopo ena e sibolla dikahare tsa Kotara ya 4 Dibeke tsa 4–6 le ho kenngwa tshebetsong ha yona ka diphaposing tsa borutelo.

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 tebisa kutlwisiso ya dikahare tsa Mmetse wa Kereiti ya R
- ◆ Ho sekaseka ho kenya tshebetsong ha Lenaneo la Mmetse ka phaposing ya borutelo
- ◆ Ho hlwaya diphephetso le ho fumana ditharollo bakeng sa ho kenya tshebetsong Lenaneo la Mmetse
- ◆ Ho sekaseka mekgwa e sa hlophiswang ya tekanyetso Kereiting ya R
- ◆ Ho rala dikahare tsa Lenaneo la Mmetse tse lokelang ho rutwa ho Kotara ya 4 Dibeke tsa 4–6

Dikahare tsa wekshopo

- ◆ Pulo le boikgopotso (Hora e 1)
- ◆ Karolo ya 1: Tjhebotjha ya Dikarolo tsa Dikahare tsa Mmetse (Hora e 1)

TEYE

- ◆ Karolo ya 2: Dinehelano tsa Karolo ya Dikahare tsa Mmetse (Hora e 1)
- ◆ Karolo ya 3: Dinehelano tsa Karolo ya Dikahare tsa Mmetse (e tswela pele) (Hora e 1)

DIJO TSA MOTSHEARE

- ◆ Karolo ya 4: Ho etsa moralo bakeng sa ho ruta (Dihora tse 1½)
- ◆ Diketsahalo tsa ho kwala (Metsotso e 30)

Preparation

- ◆ PPT welcome and outcomes
- ◆ Familiarise yourself with all the PowerPoints and videos
- ◆ Read: *Activity Guide: Term 4*, pages 70–119
- ◆ Bring the post box
- ◆ Remind participants to bring their:
Concept Guide
Activity Guides (for Terms 1–4)
Poster Book
- ◆ Prepare the topic sheets from Appendix B

Materials

- ◆ Flipchart paper, kokis
- ◆ Prestik
- ◆ *A Resource Kit* for each group (Groups will be working with all the apparatus in the *Resource Kit*.)
- ◆ Scissors and glue for each group

Tokisetso

- ◆ PPT kamohelo le diphetho
- ◆ Itlwaetse *PowerPoints* le divideo tsohle
- ◆ Bala: *Tataiso ya Diketsahalo: Kotara ya 4*, maqephe a 70–119
- ◆ Tloo le lebokoso la poso
- ◆ Hopotsa bankakarolo ho tla le:
Tataiso ya Mareo
Ditataiso tsa Diketsahalo (bakeng sa Kotara ya 1–4)
Buka ya Diphoustara
- ◆ Lokisa maqephe a dihlooho ho tswa ho Sehlopho B

Disebediswa

- ◆ Pampiri ya fliptjhate, dikoki
- ◆ Prestik
- ◆ *Khiti ya Disebediswa* bakeng sa sehlopha ka seng (Dihlopha di tla be di sebetsa ka disebediswa tsohle tse ka ho *Khiti ya Disebediswa*.)
- ◆ Dikere le sekgomaretsi bakeng sa sehlotshwana ka seng

Opening and reflection

1 hour

When we think about and discuss what worked and how we dealt with any challenges that arose during our teaching, it allows us to recognise our strengths and weaknesses. Reflection on our practice as teachers helps us gain new insights into ourselves and our teaching. Reflective practice allows us to learn from our experiences and encourages us to work with our colleagues to share ideas that improve our teaching.

Facilitator's notes

- ◆ PPT: Familiarise yourself with the slide pack for the workshop.
- ◆ Discuss the post box comments and feedback from the previous workshop. Remind participants to 'post' any new comments and feedback during the workshop.
- ◆ Lead a discussion on the importance of reflective practice as part of our teaching.

The process of self-reflection is a cycle that needs to be repeated.

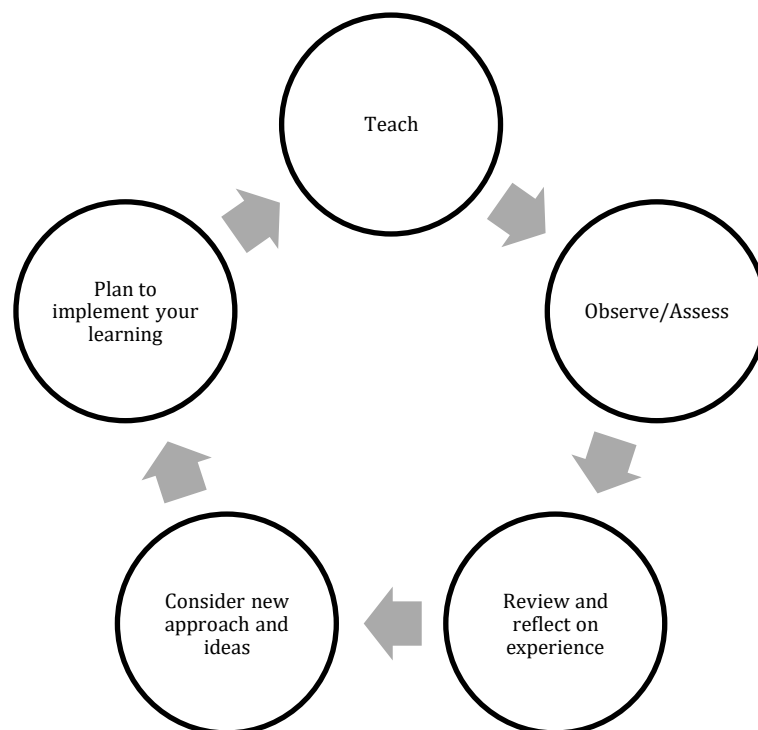


Figure 1: Stages of the reflection cycle

The process of self-reflection contains the following stages:

- ◆ Teach.
- ◆ Observe/assess.

Pulo le boikgopotso

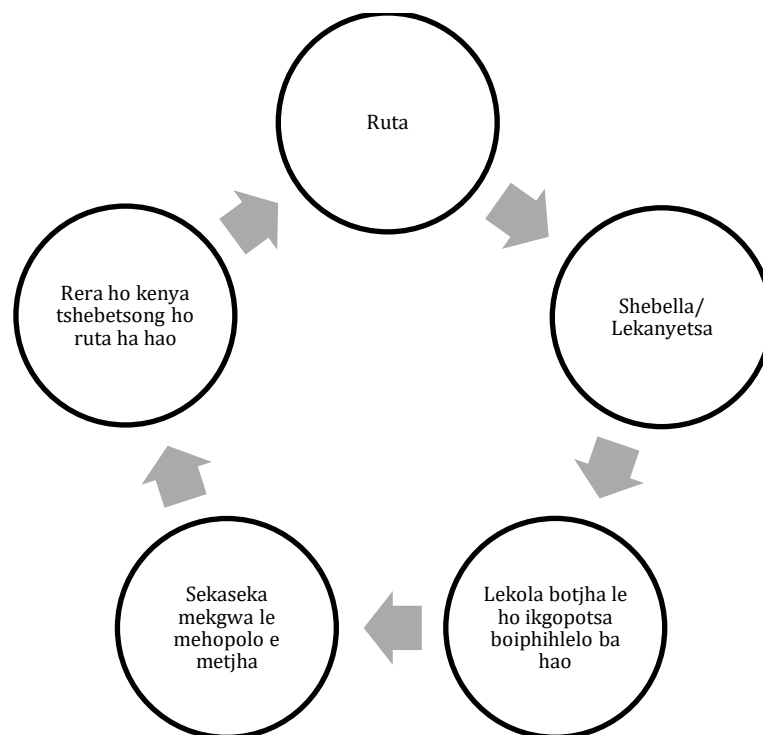
Hora e 1

Ha re nahana le ho buisana ka tse sebeditseng hantle le kamoo re sebetsaneng le diphephetso tse hlahileng ha re ne re ruta, hona ho re dumella ho eellwa matla le bofokodi ba rona. Boikgopotso ba tshebetso ya rona jwaloka matitjhere bo re thusa ho fumana lesedi le letjha la ho itseba le ho ruta ha rona. Ketso ya boikgopotso e re thusa ho ithuta dinthong tseo re fetileng ho tsona mme e re kgothaletsa ho sebedisana le basebetsimmoho ba rona ho abelana mehopolo e ka ntlafatsang tsela eo re rutang ka yona.

Dinoutso tsa motsamaisi

- ◆ PPT: Itlwaetse pakana ya dislaete bakeng wekshopo.
- ◆ Buisanang ka ditshwaelo tsa lebokoso la poso le tlaleho e tswang wekshopong e fetileng. Hopotsa bankakarolo ho 'posa' ditshwaelo le ditlaleho dife kapa dife tse ntjha nakong ya wekshopo.
- ◆ Etella pele puisano e mabapi le bohlokwa ba ketso ya boikgopotso jwaloka karolo ya ho ruta ha rona.

Mokgwatshebetso wa boitekolo ke saekele e hlokang ho phetaphetwa.



Setshwantsho sa 1: Mekgahlelo ya saekele ya boikgopotso

Mokgwatshebetso wa boitekolo o na le mekgahlelo e latelang:

- ◆ Ruta.
- ◆ Shebella/lekanyetsa.

- ◆ Review and reflect on how effective our teaching was, whether the lesson went well, what challenges emerged and whether the learners benefitted.
- ◆ Use the above information to consider new ways of teaching that could improve the quality of teaching and learning.
- ◆ Plan and implement new ideas and/or strategies in the classroom.

The cycle repeats after each teaching experience.

Reflection in implementation

Facilitator's notes

- ◆ Remind participants of the *Take back to school task* from the end of Workshop 10.
- ◆ Refer participants to **Activity 1** and read through the instructions aloud.
- ◆ Give each group a sheet of flipchart paper.
- ◆ Groups will present a summary of their discussion of the reflection cycle.

The *Take back to school task* from Workshop 10, required you to:

- ◆ Plan and implement Term 4 Weeks 1–3 of the Maths Programme.
- ◆ Write comments in the book that you use to keep track of each learner's progress (learner observation book), and to use the '**Check that learners are able to**' observation list during each of the teacher-guided activities to guide your observations and comments.
- ◆ Make notes of what worked well, what did not work well and how you resolved any challenges during your implementation of Term 4 Weeks 1–3.
- ◆ Bring your learner observation book and the notes you made when reflecting on each day's teaching to Workshop 11.



Activity 1

1. In your small group, consider each of the stages in the reflection cycle and discuss the *Take back to school task* from Workshop 10.
 - ◆ How successful was your planning and teaching in Term 4 Weeks 1–3?
 - ◆ Identify challenges and the strategies you used to resolve them.

- ◆ Lekola botjha le ho ikgopotsa kamoo ho ruta ha rona ho bileng le katleho ka teng, ebang thuto e tsamaile hantle, ke diphephetso dife tse ileng tsa hlahella le hore ebe baithuti ba fumane molemo na.
- ◆ Sebedisang tlhahisoleseding e ka hodimo mona ho sekaseka ditsela tse ntjha tsa ho ruta tse ka ntlafatsang boleng ba ho ruta le ho ithuta.
- ◆ Rera le ho kenya tshebetsong mehopollo le/kapa mawa a matjha ka phaposing ya borutelo.

Saekele e a iphetapheta kamora ketsahalo ka nngwe ya ho ruta.

Boikgopotso le ho kenya tshebetsong

Dinoutso tsa motsamaisi

- ◆ Hopotsa bankakarolo ka *Mosebetsi wa kgutlela le yona sekolong* o tswang qetellong ya Wekshopo ya 10.
- ◆ Ere bankakarolo ba shebe ho **Ketsahalo ya 1** mme ba balle ditaelo tseo hodimo.
- ◆ Efa sehlotshwana ka seng leqephe la pampiri ya fliptjhate.
- ◆ Dihlotshwana di tla nehelana ka kakaretso ya dipuisano tsa bona tsa saekele ya boikgopotso.

Mosebetsi wa kgutlela le yona sekolong o tswang ho Wekshopo ya 10, o ne o hloka hore wena o:

- ◆ Rere le ho kenya tshebetsong Kotara ya 4 Dibeke tsa 1–3 tsa Lenaneo la Mmetse.
- ◆ Ngole ditshwaelo bukeng eo o e sebedisang ho sala morao kgatelopele ya moithuti ka mong (buka ya ditemoho tsa baithuti), mme o sebedise lenane la ditemoho la **'Lekola hore baithuti ba kgona ho'** ka nako ya diketsahalo tse tataiswang ke titjhere bakeng sa ho tataisa ditemoho le ditshwaelo tsa hao.
- ◆ Ngole dinoutso ka dintho tse sebeditseng hantle, tse sa sebetsang hantle, le kamoo o rarollotseng diphephetso dife kapa dife ha o ne o kenya tshebetsong Kotara ya 4 Dibeke tsa 1–3.
- ◆ Tlise buka ya hao ya ditemoho tsa baithuti le dinoutso tseo o di entseng ha o ntse o ikgopotsa dithuto tsa letsatsi ka leng ho Wekshopo ya 11.



Ketsahalo ya 1

1. Sehlotshwaneng sa lona, sekasekang mokgahlelo ka mong wa saekele ya boikgopotso mme le buisane ka *Mosebetsi wa kgutlela le yona sekolong* o tswang ho Wekshopo ya 10.
 - ◆ Moralo le ho ruta ha hao di atlehile hakae Kotareng ya 4 Dibeke tsa 1–3?
 - ◆ Hlwaya diphephetso le mawa ao o a sebedisitseng ho di rarolla.

- ◆ Have you been able to observe each learner and record his/her progress? Give reasons and examples to support your answer.
-
-

2. Imagine that you have been asked by your Department Head to talk to the Grade R teachers at a cluster meeting.
 - ◆ Refer to the reflection cycle in Figure 1.
 - ◆ Draw the cycle on flipchart paper and add notes next to each stage of the cycle.
 - ◆ Your group will present the main points of your discussion to the whole group.

Facilitator's notes

- ◆ Wrap up the discussion and address any questions raised.



Video 1

Watch the video of a group of teachers reflecting on their teaching and listen to their opinions about reflective practice.

1. Do you agree with their ideas about reflective practice? Explain your answer.
-
-

2. Does reflective practice increase your understanding of your teaching? Explain your answer.
-
-

3. Does reflective practice increase your understanding of learning in your class? Explain your answer.
-
-

4. Does reflective practice increase your engagement with colleagues? Explain your answer.
-
-

Facilitator's notes

- ◆ Invite comments and responses to the video.

- ◆ Na o ile wa kgona ho shebella moithuti ka mong le ho rekota kgatelopele ya hae? Fana ka mabaka le mehlala bakeng sa ho tshehetsa karabo ya hao.
-
-

2. Nahana eka o kopilwe ke Hlooho ya Lefapha hore o bue le matitjhere a Kereiti ya R kopanong ya ditlelastara.
 - ◆ Sheba ho saekele ya boikgopotso Setshwantshong sa 1.
 - ◆ Taka saekele pampiring ya fliptjhate mme o kenye dinoutso pela mokgahlelo ka mong wa saekele.
 - ◆ Sehlotshwana sa lona se tla nehelana ka dintlha tsa sehlooho tsa puisano ya lona ho sehlopha sohle.

Dinoutso tsa motsamaisi

- ◆ Phethelang puisano mme le arabe dipotso dife kapa dife tse hlahellang.



Video ya 1

Shebellang video ya sehlopha sa matitjhere ba sekaseka ho ruta ha bona mme le mamele maikutlo a bona mabapi le tshebetso ya boitekolo.

1. Na o dumellana le mehopollo ya bona e mabapi le tshebetso ya boitekolo? Hlalosa karabo ya hao.
-
-

2. Na tshebetso ya boitekolo e eketsa kutlwisiso ya hao ya ho ruta ha hao? Hlalosa karabo ya hao.
-
-

3. Na tshebetso ya boitekolo e eketsa kutlwisiso ya hao ya ho ithuta ka tlelaseng ya hao? Hlalosa karabo ya hao.
-
-

4. Na tshebetso ya boitekolo e eketsa kgokahano ya hao le basebetsimmoho ba hao? Hlalosa karabo ya hao.
-
-

Dinoutso tsa motsamaisi

- ◆ Mema ditshwaelo le dikarabo mabapi le video.

Session 1: Review of the Maths Content Areas

1 hour

Facilitator's notes

- ◆ Divide the participants into 9 small groups. Allocate a space for each group to set up a table and wall display.
- ◆ Give each group flipchart paper, kokis, scissors and glue.
- ◆ Give one topic from Appendix B to each small group.
- ◆ Participants complete **Activity 2** in their small groups. Assist groups to ensure that content is accurate and that core concepts and skills are included in their presentation.
- ◆ Each group does a presentation to the whole group.
- ◆ After each presentation, draw the participants' attention to the main content focus. Address any issues that were raised or misconceptions that arose in the presentation.

In Sessions 1, 2 and 3 we will review our understanding and knowledge of the five CAPS Grade R Mathematics Content Areas and related topics. We will also discuss the teaching and approaches that form part of the Maths Programme we have been implementing.



Activity 2

1. Your group will prepare a presentation on a topic that the facilitator gives you.
 - ◆ You will have access to flipchart paper, kokis, scissors, glue and items from the *Resource Kit*. You will also be allocated a space in which to set up your presentation.
 - ◆ You need to refer to the *Concept Guide* and *Activity Guides* in your presentation.
2. Your presentation needs to include:
 - ◆ an overview of the content and how this is developed in Grade R
 - ◆ resources used to model concepts and represent ideas
 - ◆ appropriate learner activities for consolidating and applying new knowledge
 - ◆ areas of concern when teaching the topic
 - ◆ a table and wall display
 - ◆
 - ◆ examples of how learners would solve problems.
3. Your group will facilitate the discussion and answer questions from the whole group.

Karolo ya 1: Tjhebobotjha ya Dikarolo tsa Dikahare tsa Mmetse

Hora e 1

Dinoutso tsa motsamaisi

- ◆ Arola bankakarolo ka dihlotshwana tse 9. Fana ka sebaka ho sehlopha ka seng moo o tla bea dintho tafoleng le leboteng.
- ◆ Efa sehlotshwana ka seng pampiri ya fliptjhate, dikoki, dikere le sekgomaretsi.
- ◆ Efa sehlotshwana ka seng sehlooho se le seng se tswang ho Sehlomathiso B.
- ◆ Bankakarolo ba phethela **Ketsahalo ya 2** dihlotshwaneng tsa bona. Thusa dihlotshwana ho netefatsa hore dikahare di nepahetse le hore mareo a bohlokwa le bokgoni di a kenyeletswa nehelanong ya bona.
- ◆ Sehlotshwana ka seng se etsa nehelano ka pela sehlopha sohle.
- ◆ Kamora nehelano ka nngwe, eelliswa bankakarolo ka tsepamo ya dikahare tsa sehlooho. Arabela mathata afe kapa afe a neng a hlahisitswe kapa ditaba tse sa nepahalang tse hlahelletseng nehelanong.

Ho Dikarolo tsa 1, 2 le 3 re tla lekola botjha kutlwisiso ya rona le tsebo ya Dikarolo tsa Dikahare tsa Mmetse wa Grade R tse hlano tsa SLTK le dihlooho tse tsamaelanang le tsona. Hape re tla buisana ka ho ruta le mekgwa e etsang karolo ya Lenaneo la Mmetse leo re ntseng re le kenya tshebetsong.



Ketsahalo ya 2

1. Sehlotshwana sa lona se tla lokisa nehelano e mabapi le sehlooho seo motsamaisi a tlang ho le fa sona.
 - ◆ Le tla kgona ho fumana pampiri ya fliptjhate, dikoki, dikere, sekgomaretsi le dintho tse tswang ho *Khiti ya Disebediswa*. Hape le tla abelwa sebaka moo le tlang ho lokisetsa nehelano ya lona teng.
 - ◆ Le lokela ho sheba ho *Tataiso ya Mareo* le *Ditataiso tsa Diketsahalo* bakeng sa nehelano ya lona.
2. Nehelano ya lona e lokela ho kenyeletsa:
 - ◆ tjhebokakaretso ya dikahare le kamoo e ntsheletswang pele ka teng Kereiting ya R
 - ◆ disebediswa tse sebediswang ho etsa mohlala wa mareo a itseng le ho emela mehopolo
 - ◆ diketsahalo tsa baithuti tse loketseng bakeng sa ho kgobokanya le ho sebedisa tsebo e ntjha
 - ◆ dikarolo tse nang le mathata ha ho rutwa sehlooho
 - ◆ tafole le pontsho ya leboteng
 - ◆ mehlala ya kamoo baithuti ba ka rarollang mathata ka teng.
3. Sehlotshwana sa lona se tla tsamaisa puisano le ho araba dipotso tse tswang sehlopheng sohle.

Session 2: Maths Content Area presentations

1 hour

Facilitator's notes

- ◆ Each group makes its presentation to the whole group.
- ◆ After each group's presentation, draw participants' attention to the main content focus. Address any issues that were raised or misconceptions that arose in the presentation.

Each group will have 15 minutes to present their topic and respond to questions from the whole group.

Karolo ya 2: Dinehelano tsa Karolo ya Dikahare tsa Mmetse

Hora e 1

Dinoutso tsa motsamaisi

- ◆ Sehlotshwana ka seng se etsa nehelano ya sona ka pela sehlopha sohle.
- ◆ Kamora nehelano ya sehlotshwana ka seng, elelliswa bankakarolo ka tsepamo ya dikahare tsa sehlooho. Buang ka mathata afe kapa afe a ileng a hlahiswa kapa dikgopolo tse fosahetseng tse hlahelletseng nehelanong.

Sehlotshwana ka seng se tla fumana metsotso e 15 ho nehelana ka sehlooho sa bona mme ba arabe dipotso tse tswang sehlopheng sohle.

Session 3: Maths Content Area presentations (continued)

1 hour

Facilitator's notes

- ◆ Each group makes its presentation to the whole group.
- ◆ After each group's presentation, draw participants' attention to the main content focus. Address any issues that were raised or misconceptions that arose in the presentation.

Each group will have 15 minutes to present their topic and respond to questions from the whole group.

Karolo ya 3: Dinehelano tsa Karolo ya Dikahare tsa Mmetse (e tswela pele)

Hora e 1

Dinoutso tsa motsamaisi

- ◆ Sehlotshwana ka seng se etsa nehelano ya sona ka pela sehlopha sohle.
- ◆ Kamora nehelano ya sehlotshwana ka seng, elelliswa bankakarolo ka tsepamo ya dikahare tsa sehlooho. Buisanang ka mathata afe kapa afe a ileng a hlahiswa kapa mehopolo e fosahetseng e hlahelletseng nehelanong eo.

Sehlotshwana ka seng se tla fumana metsotso e 15 bakeng sa ho nehelana ka sehlooho sa bona mme ba arabe dipotso tse tswang sehlopheng sohle.

Session 4: Planning for teaching

1½ hours

This workshop session prepares participants for implementing Term 4 Weeks 4–6 and provides an opportunity for small groups to plan ahead. It is important to:

- ◆ address differences in learners' levels of progress
- ◆ support those learners who need additional assistance
- ◆ provide enrichment activities for more advanced learners.

The goal is to ensure that all learners are competent in the Grade R Mathematics content and are well prepared for Grade 1.

Facilitator's notes

- ◆ Move between the small groups as participants discuss the planning and preparation for teaching Term 4 Weeks 4–6 in **Activity 3**. Assist by making suggestions on overcoming challenges.
- ◆ Each small group plans the three weeks and completes the templates in Appendix A.
- ◆ Lead a whole-group discussion on differentiation and how to manage learners at different levels of competence. Write these ideas on flipchart paper.



Activity 3

1. In your group, complete the planning templates for Term 4 Weeks 4–6 (Appendix A).
2. Discuss how you will plan for and manage learners who have different levels of competence.

Karolo ya 4: Ho etsa moralo bakeng sa ho ruta

Dihora tse 1½

Karolo ena ya wekshopo e lokisetsa bankakarolo ho kenya tshebetsong Kotara ya 4 Dibeke tsa 4–6 mme e fana ka monyetla bakeng sa dihlotshwana ho rerela pele. Ho bohlokwa ho:

- ◆ sebetsana le diphapang mekgahlelong e fapaneng ya kgatelopele ya baithuti
- ◆ tshehetsa baithuti ba hlokanng thuso e eketsehileng
- ◆ fana ka diketsahalo tse matlafatsang bakeng sa baithuti ba seng ba hatetse pele ho feta.

Sepheo ke ho netefatsa hore baithuti bohle ba na le boitsebelo bo pele dikahareng tsa Mmetse wa Kereiti ya R mme ba se ba loketse ho ba Kereiting ya 1.

Dinoutso tsa motsamaisi

- ◆ Tsamaya pakeng tsa dihlotshwana ha bankakarolo ba ntse ba buisana ka moralo le boitokisetso bakeng sa ho ruta Kotara ya 4 Dibeke tsa 4–6 ho **Ketsahalo ya 3**. Thusa ka ho etsa ditlhaliso mabapi le ho hlola diphephetso.
- ◆ Sehlotshwana ka seng se rerela dibeke tse tharo mme se tlatsa dithempleiti tse ho Sehlomathiso A.
- ◆ Etella pele puisano ya sehlopha sohle mabapi le phapano le mokgwa wa ho laola baithuti ba nang le bokgoni bo maamong a fapaneng. Ngola mehopolo ena pampiring ya fliptjhate.



Ketsahalo ya 3

1. Sehlotshwaneng sa lona, tlatsang dithempleiti tsa moralo bakeng sa Kotara ya 4 Dibeke tsa 4–6 (Sehlomathiso A).
2. Buisanang kamoo le tlang ho rerela bakeng sa ho ruta baithuti ba nang le mekgahlelo e fapaneng ya bokgoni.

Closing activities

30 minutes

Facilitator's notes

Workshop reflection:

- ◆ Ask participants to stand in two circles, one inside the other. Participants in the outer circle should stand facing inwards and participants in the inner circle should stand facing outwards.
- ◆ Participants take a few minutes to reflect on and discuss the workshop with the person opposite them. Invite them to mention highlights and also any questions they may have that have not yet been answered.
- ◆ Ask the inner circle to move one person to the right and to repeat the discussion. Repeat this a few times.
- ◆ Ask participants to volunteer something relevant that another participant mentioned to them.
- ◆ Encourage participants to add any comments and feedback not shared during the discussion to the post box.

Facilitator's notes

- ◆ **Take back to school task:** Read through this task. Ask if there is anything that is not clear and that requires more explanation.
- ◆ **Evaluation:** Hand out copies of the Workshop Evaluation Form and have participants complete the form.
- ◆ **Next workshop:** Give dates for the next workshop and close the workshop.



Take back to school task

1. Invite other Grade R teachers at your school (or from another school) to join you in planning Term 4 Weeks 4–6 of the Maths Programme.
2. Implement these three weeks and use the reflection cycle (Figure 1) to review your experience. Write your reflections in a journal and bring it to the next workshop.

Evaluation

Complete the Evaluation Form.

Dinoutso tsa motsamaisi

Boikgopotso ba wekshopo:

- ◆ Kopa bankakarolo ho ema ka didikadikwe tse pedi, se seng ka hara se seng. Bankakarolo sedikadikweng se kantle ba lokela ho ema ba shebile kahare mme ba sedikadikweng se kahare ba lokela ho ema ba shebile kantle.
- ◆ Bankakarolo ba nka metsotso e mmalwa ho ikgotsoa ka wekshopo le ho buisana ka yona le motho eo ba shebaneng le yena. Ba kope hore ba bolele dintlha tsa bohlokwa esitana le dipotso dife kapa dife tseo ba ka bang le tsona tse esong ho arajwe.
- ◆ Kopa sedikadikwe se kahare ho isa motho a le mong ka ho le letona mme ba phete puisano hape. Phetang sena makgetlo a mmalwa.
- ◆ Kopa bankakarolo ho ithaopa ka ntho e itseng e tshwanetseng eo monkakarolo e mong a buileng ka yona ho bona.
- ◆ Kgothaletsa bankakarolo ho kenya ditshwaelo dife kapa dife le ditlaleho tse sa bolelwang nakong ya dipuisano ka hara lebokoso la poso.

Dinoutso tsa motsamaisi

- ◆ **Mosebetsi wa kgutlela le yona sekolong:** Bala mosebetsi ona. Botsa hore ebe ho na le ho hong ho sa hlakang le ho hlokang ho hlaloswa ho feta.
- ◆ **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.



Mosebetsi wa kgutlela le yona sekolong

1. Mema matitjhere a mang a Kereiti ya R a sekolong sa hao (kapa a sekolo se seng) ho ba le wena ha le rera bakeng sa Kotara ya 4 Dibeke tsa 4–6 tsa Lenaneo la Mmetse.
2. Kenya tshebetsong dibeke tsena tse tharo mme o sebedise saekele ya boikgopotso (Setshwantsho sa 1) ho lekola botjha boitsebelo ba hao. Ngola mehopolo ya hao jenaleng mme o tle le yona wekshopong e latelang.

Tlhahlobo

Tlatsa Foromo ya Tlhahlobo.

APPENDIX A: TERM 4 WEEKLY PLANNING TEMPLATE

Term 4: Activity Plan: Week ____

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

SEHLOMATHISO A: KOTARA YA 4 THEMPEITI YA MORALO WA BEKE LE BEKE

Kotara ya 4: Moralo wa Ketsahalo: Beke ya ____

KAROLO YA DIKAHARE:				
SEHLOOHO:				
TSEBISA TSEBO E NTJHA:				
HO ETSA:				
Diketsahalo tsa tlelase yohle		Ketsahalo e tataiswang ke titjhere	Diketsahalo tsa diteisheneng tsa tshebetso (diketsahalo tsa dihlotshwana tse ikemetseng)	
Letsatsi la 1			Ketsahalo ya 1	
Letsatsi la 2			Ketsahalo ya 2	
Letsatsi la 3			Ketsahalo ya 3	
Letsatsi la 4			Ketsahalo ya 4	
Letsatsi la 5				

Term 4: Activity Plan: Week __

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

Kotara ya 4: Moralo wa Ketsahalo: Beke ya ____

KAROLO YA DIKAHARE:				
SEHLOOHO:				
TSEBISA TSEBO E NTJHA:				
HO ETSA:				
Diketsahalo tsa tlelase yohle		Ketsahalo e tataiswang ke titjhere	Diketsahalo tsa diteisheneng tsa tshebetso (diketsahalo tsa dihlotshwana tse ikemetseng)	
Letsatsi la 1			Ketsahalo ya 1	
Letsatsi la 2			Ketsahalo ya 2	
Letsatsi la 3			Ketsahalo ya 3	
Letsatsi la 4			Ketsahalo ya 4	
Letsatsi la 5				

Term 4: Activity Plan: Week ____

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

Kotara ya 4: Moralo wa Ketsahalo: Beke ya ____

KAROLO YA DIKAHARE:				
SEHLOOHO:				
TSEBISA TSEBO E NTJHA:				
HO ETSA:				
Diketsahalo tsa tlelase yohle		Ketsahalo e tataiswang ke titjhere	Diketsahalo tsa diteisheneng tsa tshebetso (diketsahalo tsa dihlotshwana tse ikemetseng)	
Letsatsi la 1			Ketsahalo ya 1	
Letsatsi la 2			Ketsahalo ya 2	
Letsatsi la 3			Ketsahalo ya 3	
Letsatsi la 4			Ketsahalo ya 4	
Letsatsi la 5				

APPENDIX B: ACTIVITY 2 TOPICS

Topic 1: Number concept development and counting (Numbers, Operations and Relationships)

Prepare a presentation that includes:

- ◆ a mapping of the main concepts/skills on flipchart paper
- ◆ how this topic is taught in Grade R
- ◆ a display with concrete objects, pictures and 'examples' of learners' work to support your discussion
- ◆ important points to note about this topic.

You will need to facilitate a discussion and answer questions from the whole group.

Points to consider in your presentation:

- ◆ What is number concept?
- ◆ How do children acquire number concept?
What does counting involve? Refer to:
 - the difference between sequencing number names and counting objects
 - matching one-to-one
 - comparing groups in terms of 'more than', 'less than', 'fewer than' and 'the same number as'
 - cardinal and ordinal numbers from 1–10
 - introducing the concept of the empty set with the number word 'zero' and number symbol '0'.
- ◆ What is the value of representing number in multiple ways? Provide and explain concrete examples.
- ◆ Discuss estimation in relation to the development of number concept.

Refer to the *Concept Guide* and *Activity Guides* for examples of activities, and discuss how these were implemented in the classroom.

Topic 2: Calculations (Numbers, Operations and Relationships)

Prepare a presentation that includes:

- ◆ a mapping of the main concepts/skills on flipchart paper
- ◆ how this topic is taught in Grade R
- ◆ a display with concrete objects, pictures and 'examples' of learners' work to support your discussion
- ◆ important points to note about this topic.

You will need to facilitate a discussion and answer questions from the whole group.

SEHLOMATHISO B: DIHLOOHO TSA KETSAHALO YA 2

Sehlooho sa 1: Ntshetsopele ya dikgopolo tsa dinomoro le ho bala dintho (Dinomoro, Matshwao le Dikamano)

Lokisetsa nehelano e kenyeletsang:

- ◆ ho etsa moralo wa mareo a sehlooho/bokgoni pampiring ya fliptjhate
 - ◆ kamoo sehlooho sena se rutwang ka teng Kereiting ya R
 - ◆ pontsho e nang le dintho tse tshwarehang, ditshwantsho le 'mehlala' ya mesebetsi ya baithuti ho tshehetsa puisano ya lona
 - ◆ dintlha tsa bohlokwa tse ka elwang hloko mabapi le sehlooho.
- O tla hloka ho tsamaisa puisano le ho araba dipotso tse tswang ho sehlopha sohle.

Dintlha tseo o lokelang ho di sekaseka nehelanong ya hao:

- ◆ Kgopolo ya nomoro ke eng?
- ◆ Bana ba fumana jwang kgopolo ya nomoro?
Ho bala dintho ho kenyeletsa eng? Sheba ho:
 - phapang pakeng tsa ho hlahlamanya mabitso a dinomoro le ho bala dintho
 - ho nyalanya ntho le e nngwe
 - ho bapisa dihlopha ho ya ka 'tse ngata ho feta', 'tse ka tlase ho', 'tse mmalwa ho feta' le 'tse lekanang le'
 - dinomoro tsa dipalopadi le tsa boemo ho tloha ho 1-10
 - ho tsebisa mohopolo wa sete e se nang letho/lephaka le lentswe la nomoro ena 'ziro' le letshwao la nomoro '0'.
- ◆ Molemo wa ho emela dinomoro ka ditsela tse fapaneng ke ofe? Fana ka mehlala e tshwarehang mme o be o hlalose.
- ◆ Buisanang ka ho lekanyetsa papisong le ntshetsopele ya kgopolo ya nomoro.

Shebang ho *Tataiso ya Mareo* le *Ditataiso tsa Diketsahalo* bakeng sa mehlala ya diketsahalo, mme le buisane kamoo di ileng tsa kenngwa tshebetsong ka teng ka phaposing ya borutelo.

Sehlooho sa 2: Ho etsa dipalo (Dinomoro, Matshwao le Dikamano)

Lokisetsa nehelano e kenyeletsang:

- ◆ ho etsa moralo wa mareo a sehlooho/bokgoni pampiring ya fliptjhate
 - ◆ kamoo sehlooho sena se rutwang ka teng Kereiting ya R
 - ◆ pontsho e nang le dintho tse tshwarehang, ditshwantsho le 'mehlala' ya mesebetsi ya baithuti ho tshehetsa puisano ya lona
 - ◆ dintlha tsa bohlokwa tse ka elwang hloko mabapi le sehlooho.
- O tla hloka ho tsamaisa puisano le ho araba dipotso tse tswang ho sehlopha sohle.

Points to consider in your presentation:

- ◆ Breaking down numbers and building up numbers.
- ◆ Representing partitioned groups of objects.
- ◆ Introducing the concept of addition as combining two collections.
- ◆ Introducing the concept of subtraction as taking away from a collection.
- ◆ Comparing two collections of objects by matching one-to-one to find the difference.
- ◆ Using the number washing line and a jumping track to solve addition problems – ‘adding on’ or ‘counting on’.
- ◆ Using the number washing line and a jumping track to solve subtraction problems – ‘counting back’.
- ◆ Introducing the concept of equal sharing and grouping.
- ◆ Promoting rapid recall and number facts.

Refer to the *Concept Guide* and *Activity Guides* for examples of activities, and discuss how these were implemented in the classroom.

Topic 3: Patterns, Functions and Algebra

Prepare a presentation that includes:

- ◆ a mapping of the main concepts/skills on flipchart paper
- ◆ how this topic is taught in Grade R
- ◆ a display with concrete objects, pictures and ‘examples’ of learners’ work to support your discussion
- ◆ important points to note about this topic.

You will need to facilitate a discussion and answer questions from the whole group.

Points to consider in your presentation:

- ◆ Introducing the idea of a repeated pattern.
- ◆ Identifying the pattern unit.
- ◆ Explaining the meaning of ‘variable’ and what is appropriate in Grade R.
- ◆ Making linear patterns with one variable.
- ◆ Discuss the process of introducing pattern in Grade R. Provide concrete and pictorial examples to support your discussion.

Refer to the *Concept Guide* and *Activity Guides* for examples of activities, and discuss how these were implemented in the classroom.

Dintlha tseo o lokelang ho di sekaseka nehelanong ya hao:

- ◆ Ho heletsa dinomoro le ho aha dinomoro.
- ◆ Mokgwa wa ho emela dintho tse arotsweng ka dihlopha.
- ◆ Ho tsebisa lereo la kopanya e le ho kopanya mmoho dipokello tse pedi.
- ◆ Ho tsebisa lereo la tlosa e le ho tlosa tse ding pokellong.
- ◆ Ho bapisa dipokello tse pedi tsa dintho ka ho nyalanya e le nngwe ho e nngwe hore o fumane phapang.
- ◆ Ho sebedisa mola wa ho aneha dinomoro le seporo sa ho tlola bakeng sa ho rarolla mathata a ho kopanya – ‘ho eketsa’ kapa ‘ho bala o eya pele’.
- ◆ Ho sebedisa mola wa ho aneha dinomoro le seporo sa ho tlola bakeng sa ho rarolla mathata a ho tlosa – ‘ho bala o kgutlela morao’.
- ◆ Ho tsebisa mohopolo wa ho arola ka ho lekana le ho bea ka dihlopha.
- ◆ Ho phahamisa ho hopola ka potlako le dintlha tsa dinomoro.

Shebang ho *Tataiso ya Mareo* le *Ditataiso tsa Diketsahalo* bakeng sa mehlala ya diketsahalo, mme le buisane kamoo di ileng tsa kenngwa tshebetsong ka teng phaposing ya borutelo.

Sehlooho sa 3: Dipaterone, Ditshebetso le Aljebra

Lokisetša nehelano e kenyeletsang:

- ◆ ho etsa moralo wa mareo a sehlooho/bokgoni pampiring ya fliptjhate
- ◆ kamoo sehlooho sena se rutwang ka teng Kereiting ya R
- ◆ pontsho e nang le dintho tse tshwarehang, ditshwantsho le ‘mehlala’ ya mesebetsi ya baithuti ho tshheheta puisano ya lona
- ◆ dintlha tsa bohlokwa tse ka elwang hloko mabapi le sehlooho.

O tla hloka ho tsamaisa puisano le ho araba dipotso tse tswang ho sehlopha sohle.

Dintlha tseo o lokelang ho di sekaseka nehelanong ya hao:

- ◆ Ho tsebisa mohopolo wa paterone e iphetaphetang.
- ◆ Ho hlwaya dintlha ka bonngwe ka hara paterone.
- ◆ Ho hlalosa moelelo wa ‘variabile’ le se loketseng Kereiting ya R.
- ◆ Ho etsa dipaterone tse moleng o otlohileng ka variabile e le nngwe.
- ◆ Buisanang ka mokgwatshebetso wa ho tsebisa paterone Kereiting ya R. Fana ka mehlala e tshwarehang le ya ditshwantsho ho tshheheta puisano ya lona.

Shebang ho *Tataiso ya Mareo* le *Ditataiso tsa Diketsahalo* bakeng sa mehlala ya diketsahalo, mme le buisane kamoo di ileng tsa kenngwa tshebetsong ka teng phaposing ya borutelo.

Topic 4: Space and Shape (Geometry)

Prepare a presentation that includes:

- ◆ a mapping of the main concepts/skills on flipchart paper
- ◆ how this topic is taught in Grade R
- ◆ a display with concrete objects, pictures and 'examples' of learners' work to support your discussion
- ◆ important points to note about this topic.

You will need to facilitate a discussion and answer questions from the whole group.

Points to consider in your presentation:

- ◆ Discovering the general properties of 2-D shapes and 3-D objects.
- ◆ Collecting shapes and objects that have these shapes on their faces.
- ◆ Sorting shapes and objects and describing the 'rule' (criterion) for sorting.
- ◆ Introducing symmetry.
- ◆ Making symmetrical shapes with one or two lines of symmetry through drawing, folding and cutting.

Refer to the *Concept Guide* and *Activity Guides* for examples of activities, and discuss how these were implemented in the classroom.

Topic 5: Measurement

Prepare a presentation that includes:

- ◆ a mapping of the main concepts/skills on flipchart paper
- ◆ how this topic is taught in Grade R
- ◆ a display with concrete objects, pictures and 'examples' of learners' work to support your discussion
- ◆ important points to note about this topic.

You will need to facilitate a discussion and answer questions from the whole group.

Points to consider in your presentation:

- ◆ Using vocabulary associated with time.
- ◆ Ordering (sequencing) events and activities according to the time at which they take place.
- ◆ Comparing objects according to their size.
- ◆ Identifying the attribute to be measured.

Sehlooho sa 4: Sebaka le Sebopeho (Jeometri)

Lokisetsa nehelano e kenyeletsang:

- ◆ ho etsa moralo wa mareo a sehlooho/bokgoni pampiring ya fliptjhate
- ◆ kamoo sehlooho sena se rutwang ka teng Kereiting ya R
- ◆ pontsho e nang le dintho tse tshwarehang, ditshwantsho le 'mehlala' ya mesebetsi ya baithuti ho tshhetsa puisano ya lona
- ◆ dintlha tsa bohlokwa tse ka elwang hloko mabapi le sehlooho sena.

O tla hloka ho tsamaisa puisano le ho araba dipotso tse tswang ho sehlopha sohle.

Dintlha tseo o lokelang ho di sekaseka nehelanong ya hao:

- ◆ Ho sibolla makgetha a kakaretso a dibopeho tsa 2-D le dintho tsa 3-D.
- ◆ Ho bokella dibopeho le dintho tse nang le dibopeho tsena difahlehong tsa tsona.
- ◆ Ho hlophisa dibopeho le dintho le ho hlalosa 'molawana' (lekgetha) bakeng sa ho hlophisa.
- ◆ Ho tsebisa molahare.
- ◆ Ho etsa dibopeho tse nang le molahare ka mola o le mong kapa e mmedi ka ho taka, ho mena le ho seha.

Shebang ho *Tataiso ya Mareo le Ditataiso tsa Diketsahalo* bakeng sa mehlala ya diketsahalo, mme le buisane kamoo di ileng tsa kenngwa tshebetsong ka teng ka phaposeng ya borutelo.

Sehlooho sa 5: Mometho

Lokisetsa nehelano e kenyeletsang:

- ◆ ho etsa moralo wa mareo a sehlooho/bokgoni pampiring ya fliptjhate
- ◆ kamoo sehlooho sena se rutwang ka teng Kereiting ya R
- ◆ pontsho e nang le dintho tse tshwarehang, ditshwantsho le 'mehlala' ya mesebetsi ya baithuti ho tshhetsa puisano ya lona
- ◆ dintlha tsa bohlokwa tse ka elwang hloko mabapi le sehlooho.

O tla hloka ho tsamaisa puisano le ho araba dipotso tse tswang ho sehlopha sohle.

Dintlha tseo o lokelang ho di sekaseka nehelanong ya hao:

- ◆ Ho sebedisa tlotlontswe a amanang le nako.
- ◆ Ho bea ka tatelano (ho hlahlamanya) diketso le diketsahalo ho ya ka nako eo di etsahetseng ka yona.
- ◆ Ho bapisa dintho ho ya ka boholo ba tsona.
- ◆ Ho hlwaya lekgetha le lokelang ho methwa.

- ◆ Using maths vocabulary to compare height, length and width.
- ◆ Using maths vocabulary to compare the mass of different objects.
- ◆ Using maths vocabulary to compare capacity and volume.
- ◆ Explain what non-standard measurement is and how it relates to each of the following Measurement topics:
 - time
 - length
 - mass
 - capacity/volume.

Refer to the *Concept Guide* and *Activity Guides* for examples of activities, and discuss how these were implemented in the classroom.

Topic 6: Data Handling

Prepare a presentation that includes:

- ◆ a mapping of the main concepts/skills on flipchart paper
- ◆ how this topic is taught in Grade R
- ◆ a display with concrete objects, pictures and 'examples' of learners' work to support your discussion
- ◆ important points to note about this topic.

You will need to facilitate a discussion and answer questions from the whole group.

Points to consider in your presentation:

- ◆ Direct representation of situations using learners, objects and pictures.
- ◆ How does the idea of one-to-one matching relate to representing information/data in pictures or pictographs?
- ◆ What is the purpose of the pictures in the bottom row of the pictograph?
- ◆ What is the advantage of arranging the pictures in columns?
- ◆ Why do the pictures need to be the same size?
- ◆ Why do the pictures have to be evenly spaced?
- ◆ Discuss interpreting the information on a pictograph.

Refer to the *Concept Guide* and *Activity Guides* for examples of activities, and discuss how these were implemented in the classroom.

- ◆ Ho sebedisa tlotlontswe ya mmetse bakeng sa ho bapisa bophahamo, botelele le bophara.
- ◆ Ho sebedisa tlotlontswe ya mmetse bakeng sa ho bapisa boima ba dintho tse fapaneng.
- ◆ Ho sebedisa tlotlontswe ya mmetse bakeng sa ho bapisa mothamo le volumo.
- ◆ Hlalosa hore mometho o sa hlophiswang ke eng le kamoo o amanang le sehlooho ka seng ho tse latelang tsa Mometho:
 - nako
 - bolelele
 - boima
 - mothamo/volumo.

Shebang ho *Tataiso ya Mareo* le *Ditataiso tsa Diketsahalo* bakeng sa mehlala ya diketsahalo, mme le buisane kamoo di ileng tsa kenngwa tshebetsong ka teng ka phaposing ya borutelo.

Sehlooho sa 6: Ho Sebetsa ka Datha

Lokisetsa nehelano e kenyeletsang:

- ◆ ho etsa moralo wa mareo a sehlooho/bokgoni pampiring ya fliptjhate
- ◆ kamoo sehlooho sena se rutwang ka teng Kereiting ya R
- ◆ pontsho e nang le dintho tse tshwarehang, ditshwantsho le 'mehlala' ya mesebetsi ya baithuti ho tshhetsa puisano ya lona
- ◆ dintlha tsa bohlokwa tse ka elwang hloko mabapi le sehlooho sena.

O tla hloka ho tsamaisa puisano le ho araba dipotso tse tswang ho sehlopha sohle.

Dintlha tseo o lokelang ho di sekaseka nehelanong ya hao:

- ◆ Bontsha kemelo ya maemo o sebedisa baithuti, dintho le ditshwantsho.
- ◆ Mohopolo wa ho nyalanya ntho e le nngwe le e nngwe o amana jwang le ho emela tlhahisoleseding/datha ditshwantshong kapa kerafong ya ditshwantsho?
- ◆ Sepheo sa ditshwantsho tse moleng o tlaselase wa kerafo ya ditshwantsho ke sefe?
- ◆ Molemo wa ho hlophisa ditshwantsho ka dikholomo ke ofe?
- ◆ Hobaneng ha ditshwantsho di lokela ho lekana ka boholo?
- ◆ Hobaneng ha ditshwantsho di lokela ho sielana sebaka ka ho lekana?
- ◆ Buisanang ka ho hlalosa tlhahisoleseding e kerafong ya ditshwantsho.

Shebang ho *Tataiso ya Mareo* le *Ditataiso tsa Diketsahalo* bakeng sa mehlala ya diketsahalo, mme le buisane kamoo di ileng tsa kenngwa tshebetsong ka teng ka phaposing ya borutelo.

Topic 7: Classroom management

Prepare a presentation that includes:

- ◆ a mapping of this topic on flipchart paper
- ◆ this topic in relation to Grade R
- ◆ a display with concrete objects, pictures and 'examples' of learners' work to support your discussion
- ◆ important points to note about this topic.

You will need to facilitate a discussion and answer questions from the whole group.

Points to consider in your presentation:

- ◆ How do you create a stimulating learning environment? Refer to:
 - the classroom walls
 - the classroom floor space
 - the carpet area
 - the maths area.
- ◆ How do you manage and arrange resources (concrete apparatus) in the classroom?
- ◆ Describe how teaching in whole class and small groups is implemented.
- ◆ Outline the different types of planning that are required for successful teaching and learning.
- ◆ How are different levels of learner competence managed?

Refer to the *Concept Guide* and *Activity Guides* to support your discussion.

Topic 8: Assessment

Prepare a presentation that includes:

- ◆ a mapping of this topic on flipchart paper
- ◆ this topic in relation to Grade R
- ◆ a display with concrete objects, pictures and 'examples' of learners' work to support your discussion
- ◆ important points to note about this topic.

You will need to facilitate a discussion and answer questions from the whole group.

Points to consider in your presentation:

- ◆ What forms of assessment are implemented in Grade R?
- ◆ Describe how these are used for tracking learner progress and for reporting purposes.

Sehlooho sa 7: Tsamaiso ya Phaposing ya Borutelo

Lokisetsa nehelano e kenyeletsang:

- ◆ ho etsa moralo wa sehlooho sena pampiring ya fliptjhate
 - ◆ sehlooho sena kamanong le Kereiti ya R
 - ◆ pontsho e nang le dintho tse tshwarehang, ditshwantsho le 'mehlala' ya mosebetsi wa baithuti ho tshehetsa puisano ya lona
 - ◆ dintlha tsa bohlokwa tse lokelang ho elwa hloko mabapi le sehlooho sena.
- O tla hloka ho tsamaisa puisano le ho araba dipotso tse tswang ho sehlopha sohle.

Dintlha tse ka sekasekwang nehelanong ya hao:

- ◆ O ka etsa jwang tikoloho ya ho ithuta e tsosolosang? Sheba ho:
 - mabota a phaposi ya borutelo
 - sebaka se fatshe ka phaposing ya borutelo
 - sebaka se mmateng
 - sebaka sa mmetse.
- ◆ O laola le ho hlophisa disebediswa jwang (disebediswa tse tshwarehang) ka phaposing ya borutelo?
- ◆ Hlalosa kamoo ho ruta tlelase yohle le dihlotshwana ho kenngwang tshebetsong.
- ◆ Hlalosa mefuta e fapaneng ya moralo e hlokehang bakeng sa ho ruta le ho ithuta ka katleho.
- ◆ Mekgahlelo e fapaneng ya bokgoni ba baithuti e laolwa jwang?

Shebang ho *Tataiso ya Mareo* le *Ditataiso tsa Diketsahalo* ho tshehetsa puisano ya lona.

Sehlooho sa 8: Tekanyetso

Lokisetsa nehelano e kenyeletsang:

- ◆ ho etsa moralo wa sehlooho sena pampiring ya fliptjhate
 - ◆ sehlooho sena kamanong le Kereiti ya R
 - ◆ pontsho e nang le dintho tse tshwarehang, ditshwantsho le 'mehlala' ya mosebetsi wa baithuti ho tshehetsa puisano ya lona
 - ◆ dintlha tsa bohlokwa tse lokelang ho elwa hloko mabapi le sehlooho sena.
- O tla hloka ho tsamaisa puisano le ho araba dipotso tse tswang ho sehlopha sohle.

Dintlha tse ka sekasekwang nehelanong ya hao:

- ◆ Ke mefuta efe ya tekanyetso e kenngwang tshebetsong Kereiting ya R?
- ◆ Hlalosa kamoo mefuta ena e sebediswang ka teng bakeng sa ho sala morao kgatelopele ya baithuti le ho tlaleha.

- ◆ Provide examples and illustrations to support your presentation.
- ◆ Describe in detail one learner's solution to a word problem and describe how you would use a rubric to assess this learner.
- ◆ Clarify the use of checklists.
- ◆ How do the various forms of assessment, guide our reporting to parents?

Refer to the *Concept Guide* and *Activity Guides* to support your discussion.

Topic 9: Problem solving

Prepare a presentation that includes:

- ◆ a mapping of the main concepts/skills on flipchart paper
- ◆ how this topic is taught in Grade R
- ◆ a display with concrete objects, pictures and 'examples' of learners' work to support your discussion
- ◆ important points to note about this topic.

You will need to facilitate a discussion and answer questions from the whole group.

Points to consider in your presentation:

- ◆ What does problem solving involve in Grade R?
- ◆ What are the language considerations involved in framing word problems?
- ◆ Why is problem solving included in Grade R?
- ◆ What skills do learners need to develop to become successful problem solvers?
- ◆ Give examples of different kinds of word problems that could be presented in Grade R.
- ◆ What strategies or techniques do Grade R learners use when solving word problems?
- ◆ What is the teacher's role?

Refer to the *Concept Guide* and *Activity Guides* for examples of activities, and discuss how these were implemented in the classroom.

- ◆ Fanang ka mehlala le ditshwantsho bakeng sa ho tshehetsa nehelano ya lona.
- ◆ Hlalosa ka botebo tharollo ya moithuti a le mong ya palo ya mantswe mme o hlalose kamoo o ka sebedisang ruburiki bakeng sa ho lekanyetsa moithuti eo.
- ◆ Hlalosa tshebediso ya manane a tekolo.
- ◆ Mefuta e fapaneng ya tekanyetso e tataisa jwang tsela eo re tlalehelang batswadi ka yona?

Shebang ho *Tataiso ya Mareo* le *Ditataiso ya Diketsahalo* bakeng sa ho tshehetsa puisano ya lona.

Sehlooho sa 9: Ho rarolla bothata

Lokisetsa nehelano e kenyeletsang:

- ◆ ho etsa moralo wa mareo a sehlooho/bokgoni pampiring ya fliptjhate
- ◆ kamoo sehlooho sena se rutwang ka teng Kereiting ya R
- ◆ pontsho e nang le dintho tse tshwarehang, ditshwantsho le 'mehlala' ya mesebetsi ya baithuti ho tshehetsa puisano ya lona
- ◆ dintlha tsa bohlokwa tse ka elwang hloko mabapi le sehlooho sena.

O tla hloka ho tsamaisa puisano le ho araba dipotso tse tswang ho sehlopha sohle.

Dintlha tseo o lokelang ho di sekaseka nehelanong ya hao:

- ◆ Ho rarolla bothata ho kenyeletseng Kereiting ya R?
- ◆ Ke dikarolo dife tsa puo tse lokelang ho elwa hloko ha ho ralwa dipalo tsa mantswe?
- ◆ Hobaneng ho kenyeleditswe tharollo ya bothata Kereiting ya R?
- ◆ Ke bokgoni bofe boo baithuti ba bo hlokanang ho tswela pele ho ba bararolli ba mathata ba atlehileng?
- ◆ Fana ka mehlala ya mefuta e fapaneng ya dipalo tsa mantswe tse ka fanwang Kereiting ya R.
- ◆ Ke mawa kapa dithekeniki dife tseo baithuti ba Kereiti ya R ba di sebedisang ha ba rarolla mathata a dipalo tsa mantswe?
- ◆ Seabo sa titjhere ke sefe?

Shebang ho *Tataiso ya Mareo* le *Ditataiso tsa Diketsahalo* bakeng sa mehlala ya diketsahalo, mme le buisane kamoo di ileng tsa kenngwa tshebetsong ka teng ka phaposeng ya borutelo.

Workshop 11 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 11

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 ditlahiso tse itseng bakeng sa ho ntlafatsa diwekshopo tse ding tse tlang?
