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EDUCATION
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GGT 2030
GROWING GAUTENG TOGETHER

Setswana/English

Lenaneotokafatso la Dipalo tsa Mophato R Grade R Mathematics Improvement Programme



**Thutano 4 • Workshop 4
Bukatiro ya Batsayakarolo • Participant's Workbook**

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

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The **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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Porojeke ya Lenaneotokafatso la Dipalo le Puo tsa Mophato wa R ke itshimololelo ya **Lefapha la Thuto la Gauteng (Gauteng Department of Education)** mmogo le badirisani ba bona ba botlhokwa, **Gauteng Education Development Trust**.

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Overview

Purpose

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

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

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

Learning outcomes

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

Workshop content

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

Thadiso

Maitlhomo

Eno ke thutano ya bone ya dithutano di le lesomepedi tsa Lenaneotokafatso la Dipalo tsa Mophato R, le e leng karolo ya Porojeke ya Lenaneotokafatso la Dipalo le Puo tsa Mophato R la Lefapha la Thuto la Gauteng (GDE).

Maitlhomo a thutano eno ke go thusa barutabana go diragatsa Lenaneo la Dipalo mo diphasposiborutelong tsa bona. Batsayakarolo ba tlaa nna le tšhono ya go akanya ka ga tse ba di etseng tlhoko le go sedisisa gore **molawana wa maemo** o tlhotlheletsa jang ipaakanyo, go ruta le go rutiwa. Batsayakarolo gape ba tlaa ela tlhoko **molawana wa maemo** le gore ba tlaa tsibogela jang barutwana ba ba nang le ditlhokego tsa go rutiwa tsa kgolo le tsa motho ka nosi. Dikarolo di tlaa tlamelwa ka kitso ya tlaleletso le go tlhaloganya go ruta le go rutiwa mo Dikaroloteng tse di weditsweng mo Bekeng 10 ya Kgweditharo 1, le mo Dibekeng 1–3 tsa Kgweditharo 2.

Metswedi ya Dikaroloteng tsa Dipalo tsa Mophato wa R di tserwe mo *Polelong ya Pholisi ya Kharikhulamo le Tlhatlhobo (PPKT): Dipalo tsa Mophato wa R (Lokwalo lwa Bofelo)*, 2011, Lefapha la Thutotheo, Aforika Borwa.

Dipoelothuto

- ◆ Go sedisisa tiragatsong ya Kgweditharo 1 Dibeke 6–9
- ◆ Go sedisisa ditogamaano tsa go tshegetsa go ruta dipalo mo Mophato R
- ◆ Go simolola go tlhagisa ditharabololo tsa tswelelopele ya morutwana le maemo a kgolo
- ◆ Go diragatsa melawana ya Lenaneo la Dipalo mo ithulaganyong ya beke le beke
- ◆ Go lepalepana le diteng tsa Lenaneo la Dipalo mo Kgweditharong 1 Beke 10 le mo Kgweditharong 2 Dibeke 1–3 (Go Ranola Tshedimosetso; Dinomore, Ditiro le Dikamano; Boalo le Popego (Jeometeri))

Diteng tsa thutano

- ◆ Pulo le tshedisiso (Ura e le1)
- ◆ Karolo 1: Go Ranola Tshedimosetso (Ura e le1)

TEE

- ◆ Karolo 2: Dinomore, Ditiro le Dikamano (Ura e le 1)
- ◆ Karolo 3: Boalo le Popego (Jeometeri) (Ura e le 1)

DIJOTSHEGARE

- ◆ Karolo 4: Go ithulaganyetsa go ruta (Diura di le 2)

Opening and reflection

1 hour

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.

Pulo le tshedisiso

Ura e le 1

Sedisia tiragatso ya Lenaneo la Dipalo mo lenaneong la gago la letsatsi le letsatsi mme o dire tirwana e e latelang mo sethopheng sa gago.



Tirwana 1

Buisanang ka ga kgatelopele ya gago tebang le go diragatsa *Tirwana e o e busetsang kwa sekolong* go tswa mo Thutanong 3.

Lebelela mabokoso a kelothoko kwa bofelong jwa beke e nngwe le e nngwe mo *Kaeding ya Ditirwana: Kgweditharo 1*, Dibeke 6, 7, 8 le 9.

1. Ke botlhale bofe jo o bo boneng fa o ntse o etse barutwana tlhoko ka nako ya bona e e tobilweng ya Dipalo?

2. Ke eng se o boneng se le thata ka ga kelothoko mo tirwaneng e e kaelwang ke morutabana?

3. Tlhagisa selo se le sengwe fela se sentshwa se se dirang sentle mo Tiragatsong ya gago ya Kgweditharo 1 Dibeke 6–9. A o bone gore Lenaneo la Dipalo le a thusa mo go ruteng le mo go ithuteng mo phaposiborutelong ya gago ya Mophato wa R?

Go ya ka **molawana wa maemo**, pharologantsho e kaya gore se o se rutang le ka moo o se rutang ka teng o tlhoka go ela tlhoko bokgoni jo bo farologaneng jwa barutwana kgotsa maemo a bona a kgolo. Fa o dirisa tsela eno, o tlhoka go ba ela tlhoko ka gale le go rekota tswelelopele ya morutwana mongwe le mongwe mmogo le kgolo mo dipalong.

Session 1: Data Handling

1 hour

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

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.

Karolo 1: Go Ranola Tshedimosetso

Ura e le 1

Thutano eno e tobile go ruta diteng tse di latelang tsa Lenaneo la Dipalo: Kgweditharo 1 Beke 10 le Kgweditharo 2 Dibeke 1–3. Karolo eno e tobile Kgweditharo 1 Beke 10: Go Ranola Tshedimosetso.

Karolo 1 Thadiso ya diteng: Go Ranola Tshedimosetso

Lebelela Karoloteng ya Go Ranola Tshedimosetso mo ditsebeng 136–137 tsa *Kaedi ya Mogopolو.*



Tirwana 2

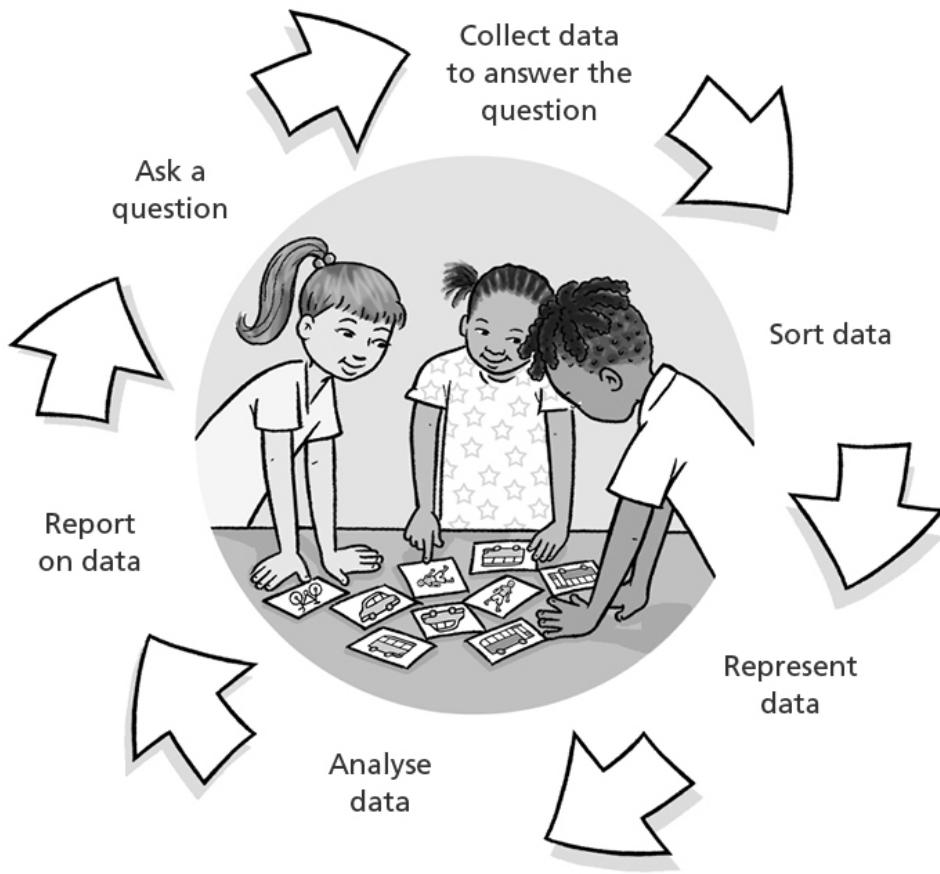
Mo ditlhopheng tsa lona, buisanang ka:

1. Ke diteng dife tsa Go Ranola Tshedimosetso tse di dirilweng mo Kgweditharong ya 1?

2. Lenaneo la Dipalo le tlaleletsa ka eng mo diteng tse di tswang mo PPKT?

Go dira ka dinewa

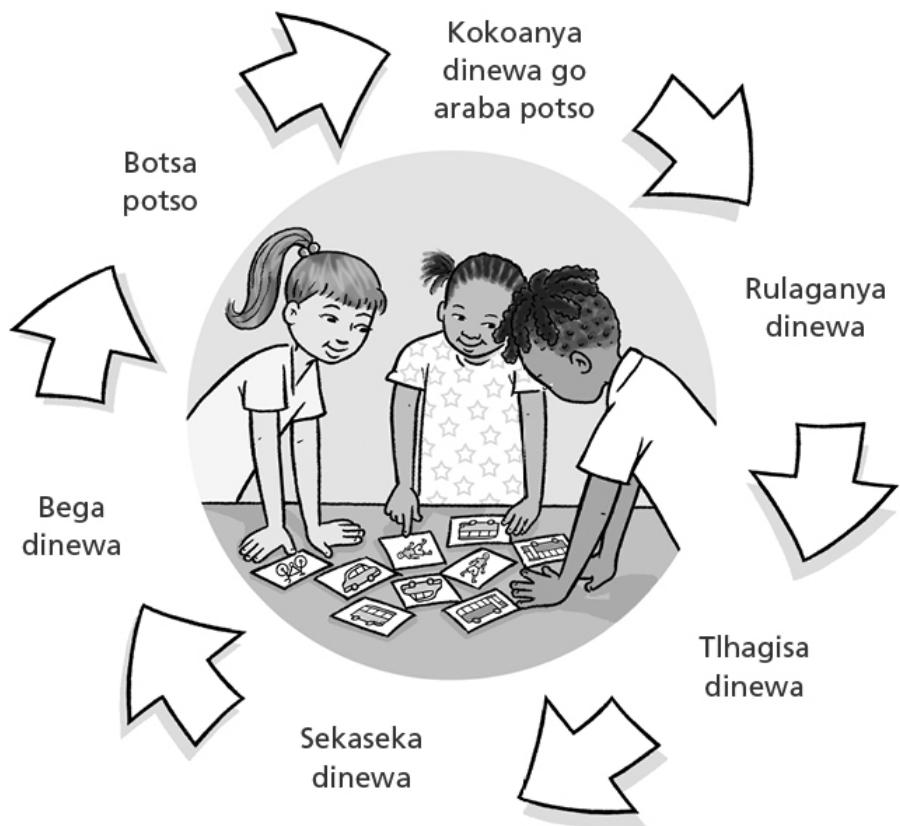
Mo karolong eno, o tlaa ithuta ka ga Tsheko ya Go Ranola Tshedimosetso jaaka tsela ya tharabololo ya dipalo. Go Ranola Tshedimosetso mo Mophatong wa R go tobole go kokoanya, go tlhaola, go rulaganya, go tlhagisa le go tlhatlhoba tshedimosetso ka ga batho kgotsa dilo. Lebakalegolo la go kokoanya dinewa ke go araba potso kgotsa go rarabolola palo.



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.
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.



Go le gantsi batho ba lebelela tsamao ya Go Ranola Tshedimosetso jaaka tsheko gonne ditiragalo kgotsa ditirwana tse di dirwang di boelediwa mo tatelanong e e tshwanang mo potsong e nngwe le e nngwe e ntshwa e e arabiwang.

- Botsa potso:** Barutwana ba swetsa gore ba batla go batlisisa ka ga eng. Leno ke lona lebaka la go kokoanya dinewa kgotsa tshedimotsetso e e rileng.
- Kokoanya dinewa:** Barutwana ba swetsa gore ba tlaa kokoanya jang dinewa ba ikaegile ka potso kgotsa bothata.
- Rulaganya dinewa:** Barutwana ba rulaganya dinewa le go di baya ka ditlhophha go latela ponagalo. Gore ba kgone go araba dipotso le go swetsa gore ba tlhagisa jang dinewa tse ba di kokoantseng, ditshwetso tsa gore dilo di ka rulaganngwa jang.
- Go tlhagisa dinewa:** Barutwana ba tlhotlhomisa ditsela tse di farologaneng tsa go bontsha kgotsa go supa tshedimosetso e ba e kokoantseng.
- Sekaseka dinewa:** Barutwana ba tlhalosa le go bapisa dinewa tse di tlhagisitsweng.
- Bega ka dinewa:** Barutwana ba araba potso e e boditsweng pele.

Dilo di ka rulaganngwa le go arologanngwa (kokoanngwa) go ya ka ditshwano tsa tsona, jaaka mmala, diphologolo, dimela. Fa barutwana ba itse go le gontsi ka ga diponagalo tsa dilo, le ditshwano le dipharologano tsa tsona, ba ka kgona go tlhama ditlhophha botoka ka dipharologantsho tse di farologaneng.



Video 1

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.

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 16. 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.



Video 1

Lebelela video ya phaposiborutelo e tlhama le go sekaseka keraphotshwantsho go tlhagisa bosa.

Tlhalosa ka moo morutabana o tlhagisang kgato e nngwe le e nngwe mo kamusong. Ela tlhoko mefuta ya dipotso tse a di dirisang le gore o gatelela jang tiriso e e nepagetseng ya tlotlofoko.

Tirwana e e latelang eno e tlaa go tlhagisetsa dikgato tse thataro tsa tsheko ya Go Ranola Tshedimosetso.



Tirwana 3

Tsaya dibalaphologolo tse di latelang go tswa mo *Kgetsaneng ya Didiriswa* tsa Lenaneo la Dipalo: dipidipidi di le tharo, dikoko di le pedi le pitse e le nngwe.

1. Tsaya potso eno tsia: A dipidipidi kgotsa dikoko di dintsí go feta mo setlhopheng?
2. Tlhaola le go kokoanya dinewa: Rulaganya diphologolo tsa gago ka ditlhophpha mme morago lo buisanele tse di latelang le molekane:
 - ◆ A jaanong o kgora go bona fa go na le dipidipidi tse dintsí go feta dikoko?
 - ◆ O ka netefatsa jang?
3. Tltagisa dinewa: Lebelela keriti mo tsebeng 17. Baya diphologolo tsa mofuta o le mongwe ka go di tlhatlaganya mo kholomong o simolola kwa tlase ga keriti.
4. Sekaseka le go neela pegelo tebang le dinewa: Lebelela dikholomo tsa gago mme lo buisane le molekane
 - ◆ A dipidipidi ke tsona tse dintsí go feta kgotsa ke dikoko? O itse jang?
 - ◆ Ke kholomo efe e e nang le diphologolo tse dintsí?
 - ◆ Ke kholomo efe e e nang le diphologolo di le mmalwanyana?
 - ◆ A go na le palo e e lekanang ya mofuta mongwe wa diphologolo?

Lebelela ditsebe 184–187 tsa *Kaedi ya Ditirwana: Kgweditharo 1* mme lo buisane ka moo tirwana eno e tlhagiseditsweng barutwana ka teng. Lebelela ditsebe 212–219 tsa *Kaedi ya Mogopolo* go buisa go le gontsi ka ga Go Ranola Tshedimosetso. Lemoga dipotso tse di maleba le tlotlofoko e e amanang le go ruta le go ithuta Go Ranola Tshedimosetso mo Mophatong wa R.

Session 2: Numbers, Operations and Relationships

1 hour

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

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*.

Karolo 2: Dinomore, Ditiro le Dikamano

Ura e le 1

Kgweditharo 2 Dibeke 1 le 2 e tobile Dinomore, Ditiro le Dikamano.

Karolo 2 Thadiso ya diteng: Dinomore, Ditiro le Dikamano



Tirwana 4

Lebelela Karoloteng ya Dinomore, Ditiro le Dikamano mo ditsebeng 114–123 tsa *Kaedi ya Mogopolو*.

1. Ke megopolو efe e e tobiwang mo Kgweditharong ya 2?

2. Lenaneo la Dipalo le tlaleletsa ka eng mo PPKT?

Kaedi ya Ditirwana: Kgweditharo 2

Kaedi ya Ditirwana: Kgweditharo 2 e tlamela barutabana ka ditshikhinyo tsa beke le beke tsa go ruta le go ithuta Dipalo.

Lebelela tsebe ya Diteng le ditsebe 6–17 tsa *Kaedi ya Ditirwana: Kgweditharo 2*. O tlaa bona gore ‘Tlhagiso’ mo Kgweditharong ya 2 e tshwana le mo Kgweditharong 1.

Mo Tirwaneng 4 o tlhaotse megopolopalo e e tshwanetseng go lejwa mo Kgweditharong ya 2. Mo Tirwaneng 5, o tlaa dira dikgolagano magareng ga megopolو eno le Kitso e ntšhwa mo dibekeng tse pedi tsa ntlha tsa *Kaedi ya Ditirwana: Kgweditharo 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

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.



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.



Tirwana 5

Lebelela 'Thadiso ya diteng: Kgweditharo 2' (*Kaediy ya Ditirwana: Kgweditharo 2*, ditsebe 18-21).

1. Ke kitso efe e ntšhwa e e tlhagiseditsweng barutwana mo Karoloteng ya Dinomore, Ditiro le Dikamano?
-
-

2. Boela kwa Tirwaneng 4 mme o bonalatse kgotsa o sekele megopoloo e e lebilweng.

Go tlhaloganya dipalo

Mo Kgweditharong ya 1, dinomore 1, 2 le 3 di rutilwe. O dirisitse moetlo o o tshwanang mo nomoreng nngwe le nngwe e e rutilweng, o oketsa ka nngwe fela mo nomoreng nako le nako fa go tlhagisiwa nomore e nngwe. Mo Kgweditharong ya 2 Beke 1, go tobilwe gape mogopolopalo. Barutwana ba tlhagisetswa nomore 4, ka go dirisa moetlo o o tshwanang le o o dirisitsweng mo dinomoreng 1, 2 le 3.



Tirwana 6

Lebelela ditirwana tsa phaposiborutelo yotlhe tse di tobileng nomore 4 mo Bekeng 1: Kaedi ya Ditirwana: Kgweditharo 2: tsebe 25 (Letsatsi 1 #4), tsebe 27 (Letsatsi 2 #5), tsebe 29 (Letsatsi 3 #4), tsebe 31 (Letsatsi 4 #4 le Letsatsi 5 #4).

1. Buisanang gore nomore '4' e ka tlhagisiwa jang.
-
-

2. Akanya ka ga moetlo wa phaposiborutelo ya lona le ka moo moetlo ono o ntse o dira ka teng go fitlha ga jaana. Tlatsa papetla eno.

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>		

Tirwana	Ke eng se se dirileng sentle?	Ke eng se se sa dirang sentle?
Anaanelo kanelo le go aga nomorekgabisi		
Go diragatsa kanelo		
Go kokoanyetsa lefelo la dipalo dilo		
Go nyalanya dilo le ditshwantsho, dikaratarontho, matshwaopalo le mafokopalo		
Go dirisa <i>Buka ya</i> <i>Diphousetara</i>		

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

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?

2. What new vocabulary will you introduce?

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

Tlotlofoko ya dipalo

Karolo nngwe ya go ithuta megopololo e mešwa e akaretsa puo e ntšhwa. Barutwana ba tlhoka tlotlofoko go bua le go akanya ka ga megopololo ya dipalo (**molawana wa tirisano**). O ka rotloetsa barutwana go dirisa tlotlofoko ya dipalo ka go e dirisa fa o bua le bona ka ga megopolopalo le go bua se ba se buang o dirisa puo ya dipalo.

Madi

Mo Kgweditharong ya 2 Beke 2 barutwana ba simolola go rutiwa ka madi. Barutwana ba Mophato R ba simolola go lemoga diponagalo tsa madi mme e bile ba tlhoka ditšhono go tlhotlhomisa gore dikhoene tsa nnete tsa Aforikaborwa di ntse jang.

Tirwana 7 e tobile go thusa barutwana go lemoga ditshwano le dipharologano magareng ga dikhoene: bogolo jwa tsona, popego le diphologolo mo dikhoeneng.



Tirwana 7



1. O ka botsa barutwana dipotso dife go ba thusa go lemoga diponagalo tse di farologaneng tsa dikhoene tseno?

2. O tlaa tlhagisa tlotlofoko efe e ntšhwa?

Barutwana ba tlhoka go tlhaola le go neela maina a dikhoene pele ga ba ipaakanyetsa go tlhaloganya boleng jwa tsona.

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?

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

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

Barutwana ba tlhoka go tlhagisetswa maitlhomo a madi. Barutabana ba ka thusa barutwana go tlhaloganya gore madi a dirisetswa go reka dilo jaaka dijo le diaparo le go dira dilo tse di farologaneng jaaka go tsamaya ka thekesi kgotsa bese. A barutwana ba tlhagisetswe madi le maitlhomo a ona ka go aga lebenkele la go tshameka ka dikhoene tsa maitirelo le madi a pampiri le dilwana tse di ka rekiwang.

Lebelela ditirwana tsa phaposiborutelo yotlhe le tsa ditlhophpha tse dinnye tse di tobileng madi mo ditsebeng 40–51 tsa *Kaedi ya Ditirwana: Kgweditharo 2*. Mo setlhopheng sa gago, dirang Tirwana 8.



Tirwana 8

1. Ke megopolو efe ya madi e e rutiwang le go ithutiwa mo ditirwaneng tsa phaposiborutelo yotlhe?

2. Barutwana ba rotloediwa jang go tlhethomisa maitlhomo a madi?

3. Morutabana o tsolotanya jang kitso e ntšhwa eno mo ditirwaneng tsa ditlhophpha tse dinnye?

Session 3: Space and Shape (Geometry)

1 hour

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

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.

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?

Karolo 3: Boalo le Popego (Jeometeri)

Ura e le 1

Kgweditharo 2 Beke 3 e tobile Boalo le Popego (Jeometeri).

Karolo 2 Thadiso ya diteng: Boalo le Popego (Jeometeri)

Lebelela ditsebe 126–131 tsa *Kaedi ya Mogopolo*.



Tirwana 9

- Ke megopolu efe ya Boalo le Popego (Jeometeri) e e lebiwang mo Kgweditharong ya 2?

Lenaneo la Dipalo le tlaleletsa ka eng mo ditennyeng tsa PPKT?

Dikhutloharo

Mo Kgweditharong ya 2, Beke 3, barutwana ba tswelela ka ditlhotlhomo tsa bona tsa dipopego tsa tlakore-pedi fa ba di tlhalosa, ba di thola le go di bapisa. Mo karolong eno o tlaa tiisa go tlhaloganya diponagalo tsa dikhutloharo.

Lebelela Letsatsi 2 #4 mo tsebeng ya 59 ya *Kaedi ya Ditirwana*: Kgweditharo 2 mme morago o dire Tirwana mo ditlhopheng tsa lona.



Tirwana 10

'Khutloharo e farologana jang le dipopego tse dingwe mo phaposiborutelong?' O soloftse mofuta ofe wa dikarabo go tswa mo barutwaneng ba gago?

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.

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?

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.

Fa barutwana ba neelwa ditšhono go tlhaola le go kgobokanya dipopego tse di farologaneng, ba tlhoka go tota diponagalo tsa dipopego go tsaya ditshwetso, sk. palo ya matlhakore, gore a matlhakore a tlhamaletse kgotsa a digoro le palo ya dikhutlo.

Dikanelo ke mokgwa o o maleba go tlhagisetsa barutwana megopolu ya dipopego. Reetsa kanelo, *Ba gogile, ba boa ba goga*, go tswa mo Bekeng ya 3 (*Kaedi ya Ditirwana: Kgweditharo 2*, ditsebe 63 le 199) jaaka se anegiwa ke mofatlhosu wa gago mme morago o dire Tirwana 11 mo setlhopheng sa gago.



Tirwana 11

1. Ke dipotso dife tse o neng o ka di botsa barutwana go ba thusa go le gontsi ka ga diponagalo tsa dikhutlo?

2. A bontsi jwa dipotso tseno ke dipotso tse di bulegileng kgotsa tse di tswalegileng?

Ela tlhoko: Dirisa *Kaedi ya Ditirwana: Kgweditharo 1* le *Kgweditharo 2* go go thusa go rulaganyetsa go ruta mo dibekeng tseno. Dikakanyo le ditshikhinyo tsa ditirwana ke kaedi le didiriswa. Baakanyetsa lefelo la dipalo diteng tse di tobilweng mo bekeng nngwe le nngwe.

Session 4: Planning for teaching

2 hours



Video 2

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 4: Go ithulaganyetsa go ruta

Diura di le 2



Video 2

Lebelela video ya tirwana e e kaelwang ke morutabana. Ela tlhoko gore morutabana o dirisa dipotso jang go tlhotlheletsa le go kaela barutwana ka nako ya tirwana.

Buisanang ka moo lo kgonneng ditirwana tse di kaelwang ke morutabana ka teng mo Kgweditharong ya 1.

A lo kopane le dikgwetlho dingwe? Fa go le jalo, lo dirisitse ditogamaano dife go di rarabolola?

Dikgweditharo 1 le 2 Khutshwafatso ya Diteng (Kgweditharo 1 (Dibeke 10 le Kgweditharo 2 (Dibeke 1-3))

Mametlelelo A: Kgweditharo 1 le 2 Khutshwafatso ya Diteng tsa Beke le Beke: Kgweditharo 1 (Beke 10) le Kgweditharo 2 (Dibeke 1-3) di thadisa Dikaroloteng tse di Lebeletsweng tsa botlhokwa mo bekeng nngwe le nngwe, ditlhogo tse di tshwanetseng go rutiwa, kitso e ntšhwa le ikatiso e e totilweng mo bekeng nngwe le nngwe, le ditirwana tse di tshikhintsweng tsa phaposiborutelo yotlhe, ditirwana tse di kaelwang ke morutabana le tsa ditlhophpha tse di ikemetseng tsa beke.



Tirwana 12

Lebelela Mametlelelo A: Kgweditharo 1 le 2 Khutshwafatso ya Diteng tsa Beke le Beke: Kgweditharo 1 (Beke 10) le Kgweditharo 2 (Dibeke 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?				
What are the key concepts that learners will be learning?				
What new knowledge is introduced?				
What skills are being practised?				

Dipotso	Beke 10 Kgweditharo 1	Beke 1 Kgweditharo 2	Beke 2 Kgweditharo 2	Beke 3 Kgweditharo 2
Karoloteng e e Lebeletsweng mo bekeng eno ke efe?				
Barutwana ba tlaa bo ba ithuta megopololo efe ya botlhokwa?				
Go tlaa tlhagisiwa kitso efe e ntšhwa?				
Ke dikgono dife tse di diragadiwang?				

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.



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.

Kaedi ya Ditirwana: Kgweditharo 1: Beke10 le Kaedi ya Ditirwana: Kgweditharo 2: Dibeke 1–3

Lebelela Beke 10 mo *Kaeding ya Ditirwana: Kgweditharo 1* le Dibeke 1, 2 le 3 mo *Kaeding ya Ditirwana: Kgweditharo 2*. Dira Tirwana 13 mo setlhopheng sa gago.



Tirwana 13

Batla Beke 10 mo *Kaeding ya Ditirwana: Kgweditharo 1*. Araba dipotso.

1. Karoloteng e e Lebeletsweng mo bekeng eno ke efe?
2. Ke dithhogo le kitso efe e ntšhwa tse di rutiwang mo bekeng eno?
3. Diteng tsa 'Ikatise' di golagana jang le beke e e fetileng?
4. O tlhoka go baakanyang pele ga o ruta mo bekeng eno?
5. Buisa ditirwana tsa phaposiborutelo yotlhe le tsa ditlhophpha tse dinnye.
6. Buisanang mo ditlhopheng tsa lona tse dinnye, gore mo phaposiborutelo ya lona lo ya go rulaganyetsa thuto ya beke eno jang.
7. Mo ditlhopheng tsa lona tse dinnye, lebelelang kwa morago mo Bekeng ya 10 mo Mametlelelong A. Nyalanya ditirwana tsa phaposiborutelo yotlhe le tsa ditlhophpha tse dinnye mo Bekeng ya 10 tsa *Kaedi ya Ditirwana: Kgweditharo 1* le Khutshwafatso ya Diteng tsa Beke le Beke mo Mametlelelong A.



Tirwana 14

Batla Dibeke 1, 2 le 3 mo *Kaeding ya Ditirwana: Kgweditharo 2*. Araba dipotso.

1. Karoloteng e e Lebeletsweng mo bekeng nngwe le nngwe ke efe?
2. Ke dithhogo le kitso efe e ntšhwa tse di rutiwang mo bekeng nngwe le nngwe?
3. Diteng tsa 'Ikatise' di golagana jang le beke e e fetileng?
4. O tlhoka go baakanyang pele ga o ruta mo bekeng eno?
5. Buisa ditirwana tsa phaposiborutelo yotlhe le tsa ditlhophpha tse dinnye.
6. Buisanang mo ditlhopheng tsa lona tse dinnye, gore mo phaposiborutelo ya lona, lo ya go rulaganyetsa thuto ya dibeke tse tharo tseno jang.
7. Mo ditlhopheng tsa lona tse dinnye, lebelelang kwa morago mo Dibekeng tsa 1–3 mo Mametlelelong A. Nyalanya ditirwana tsa phaposiborutelo yotlhe le tsa ditlhophpha tse dinnye mo Dibekeng tsa 1–3 tsa *Kaedi ya Ditirwana: Kgweditharo 2* le Khutshwafatso ya Diteng tsa Beke le Beke mo Mametlelelong A.



Gopola gore leitlho le le mo bolokong jo bo ntshofaditsweng kwa bokhutlong jwa ditirwana tse di kaelwang ke morutabana (**Ela tlhoko gore barutwana ba kgona go**) le re gopotsa gore re tshwanetse go ela barutwana tlhoko fa ba semeletse ba dira, le gore re tlhoka go reetsa ka kelotlhoko fa ba bua le rona le balekane ba bona.

Tshwarelela morutwana mongwe le mongwe ka tlhogo, le gore fa barutwana ba ile, kwala tse o di etseng tlhoko ka ga bona mo bukaneng e e totileng dikelotlhoko mme e na le sebaka se o ka kwalang ka ga morutwana mongwe le mongwe mo go sona.

Closing activities



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

Ditirwana tsa tswalelo



Tirwana 15

Se o se ithutileng: Akanya ka ga se o se ithutileng ka nako ya thutano mme o tlatse papetla.

Dilo tse ke setseng ke di dira mme di dira sentle	Dikakanyo tse dišwa tse ke ratang go di lekeletsa



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.



Tirwana e o e busetsang kwa sekolong

1. Tswelela pele ka dikelotlhoko tsa gago go itse morutwana mongwe le mongwe ka botlalo.
2. Ka nako ya ditirwana tse di kaelwang ke morutabana, dira karowlana ya *Ela tlhoko gore barutwana ba kgona go* (morago ga tirwana e e kaelwang ke morutabana mo bekeng nngwe le nngwe) ya morutwana mongwe le mongwe yo o etsweng tlhoko.
3. Dira khophi ya Sekai sa Rekoto ya Tlhatlhobotsweledi mo *Kaeding ya Ditirwana: Kgweditharo 1* (ditsebe 190–193).
4. Dirisa tshedimosetso e e kokoantsweng mo dintlheng tsa gago tsa boelotlhoko go fitlha gajaana mme o rekote kgolo ya morutwana mongwe le mongwe. (Gopola gore dipaterone tsa kgolo di tlhoka go rekotiwa mo nakong e e rileng.)
5. Dirisa *Kaedi ya Ditirwana: Kgweditharo 1* (Beke 10) le *Kaedi ya Ditirwana: Kgweditharo 2* (Dibeke 1–3) go rulagnya le go diragatsa Kgweditharo 1 (Beke 10 le Kgweditharo 2 Dibeke 1–3 tsa Lenaneo la Dipalo, go akaretsa go tlhama lefelo la dipalo go tobilwe mogopolo wa beke nngwe le nngwe.
6. Kwala tshekatsheko ya gore ke eng se se atlegileng, ke eng se se sa tsamayang sentle le gore o ka dirang ka tsela e e farologaneng go tokafatsa go ruta le go ithuta. Tlaya ka pegelo ya gago ya tshekatsheko mo thutanong e e latelang.

Tlhatlhobo

Tlatsa Foromo ya Tlhatlhobo.

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.	Activity 1	Sorting waste.
Day 2	Data collection, sorting clothing items.	Touch and count – one-to-one correspondence.	Activity 2	Sorting colours.
Day 3	Sorting and classifying, group game.	Sorting and classifying activities – animals.	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.	Representing and interpreting data.	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.	Activity 1	Playdough mat 4 (as for previous numbers).
Day 2	Introduce more than/less than/equal to, maths table.	Matching objects to number dot, symbol and word cards 1–4.	Activity 2	Number ordering puzzle activity to 4 (forms a picture).
Day 3	Reinforce 1–4, dot cards and ordering.	Arrange counters to match dot cards.	Activity 3	Matching number symbols, words and concrete objects to 4.
Day 4	Reinforce 1–4, Unifix blocks and hoops.	Practise more than, fewer than, equal.	Activity 4	Number puzzles (no number words).
Day 5	Reinforce number 4, Poster 6.	Write number 4 (as with numbers 1 to 3).		

**MAMETLELELO A: KGWEDITHARO 1 LE 2 KHUTSHWAFATSO YA DITENG TSA BEKE LE BEKE: KGWEDITHARO 1 (BEKE 10) LE
KGWEDITHARO 2 (DIBEKE 1-3)**

Kgweditharo 1: Thulaganyo ya Ditirwana

Beke 10			
KAROLOTENG: GO RANOLA TSHEDIMOSETSO			
SETLHOGO: Kokoanya le go rulaganya dilo, go tlhagisa dilo tse di kokoantsweng, go buisana le go bega ka ga dilo tse di kokoantsweng mme di rulagantswe			
TLHAGISA KITSO E NTSHWA: Kokoanya, rulaganya le go tlhagisa dilo tse di kokoantsweng (bosa); buisanang le go bega ka ga dilo tse di kokoantsweng; tlhama paterone ya gago			
IKATISE: Go balela kwa godimo 1–10, go balela kwa morago go tloga ka 5, go latedisanya dinomore 1–3, go bala dilo 1–5, mogopolopalo 1–3, kopolola dipaterone, malepa a go rarabolola dipalo		Tirwana e e kaelwang ke morutabana	Ditirwana tsa Seteisenetiro
Letsatsi 1	Go rulaganya le go aroganya, go latlha dilo.	Go balela kwa godimo.	Tirwana 1
Letsatsi 2	Go kokoanya dinewa, go rulaganya dilwana tsa diaparo.	Go kgoma le go bala – tsamaelano ya nngwe ka nngwe.	Tirwana 2
Letsatsi 3	Go rulaganya le go aroganya, motshameko wa ditlhophha.	Go rulaganya le go aroganya ditirwana – diphologolo.	Tirwana 3
Letsatsi 4	Dirisa dinewa tse di kokoantsweng go tswa mo dipuisano ka ga bosa, go tlhagisa le go sekaseka gore malatsi a letsatsi le neng le tlhabile ke a le makae, a pula e neng e na ke a makae, j.j.	Go tlhagisa le go ranola dinewane.	Tirwana 4
Letsatsi 5	Kokoanyo ya dinewa tsa bosa, go tlhagisa le go sekaseka.		Go rulaganya tse di latliwang. Go rulaganya mebalu. Go rulaganya therei, dilwana tsa tlholego. Kopolola paterone ka go dirisa dilo tse di tshwaregang le go tlhama paterone ya gago morago ga foo.

Kgweditharo 2: Thulaganyo ya Ditirwana

Beke 1			
KAROLOTENG: DINOMORE, DITIRO LE DIKAMANO			
SETLHOGO: Lemoga matshwaopalo le mafokopalo, tlhalosa, rulaganya le go bapisa dinomore			
TLHAGISA KITSO E NTSHWA: Feta/mmawanyana go/lekana le, tlhagisa nomore 4			
IKATISE: Go balela kwa godimo 1–10, go latedisanya dinomore 1–3, go bala dilo 1–5, go gatelela mogopolopalo 1–3		Tirwana e e kaelwang ke morutabana	Ditirwana tsa Seteisenetiro
Letsatsi 1	Tlhagisa 4 (dithutlw).	Go bala dilo 1–5.	Tirwana 1
Letsatsi 2	Tlhagisa papetla ya dipalo kgolo go/nnye go/lekana le,	Go nyalanya dilo le dikarata tsa dimonorerontho, tshwao le foko 1–4. Rulaganya dibadi go nyalanya dikaratarontho. Go ikatisetsa kgolo go, mmalwa go, lekana. Kwala nomore 4 (fela jaaka dinomore 1 go 3).	Tirwana 2
Letsatsi 3	Go gatelela 1–4, dikaratarontho le go rulaganya.		Tirwana 3
Letsatsi 4	Go gatelela 1–4, Dibolokokgogedi le dihupu.		Tirwana 4
Letsatsi 5	Go gatelela 4, Phousetara 6.		Go nyalanya matshwaopalo, mafoko le dilo tse di tshwaregang go 4. Diphazele tsa dinomore (ga go mafokopalo).

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.	Activity 1 Activity 2 Activity 3 Activity 4	Make own coin (give a circle shape). Number caterpillar – sequencing numbers 1–4. Draw or paste objects to match numbers 1–4. Posting activity using number and colour 1–4.
Day 2	Maths table – shopping, ordinal numbers first to fourth.	Shake and break with 4. South African coins – match coins to ‘goods in shop’.		
Day 3	Matching number/dot cards and number words.	Use cut-out coins; sorting, ordering, matching.		
Day 4	Ordering number 1–4, shopping.	Make equal groups to 4 – using counters.		
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.	Activity 1	Colour triangles.
Day 2	Reinforce the triangle.	Use shapes to show correct number (1–4).	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).	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.	Direction: forwards, backwards.	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 2

KAROLOTENG: DINMORE, DITIRO LE DIKAMANO

SETLHOGO: Madi: go simolola temoso ya dikhoene tsa Aforikaborwa

TLHAGISA KITSO E NTSHWA: Dikhoene tsa Aforikaborwa, dipalokemotatelano ya ntlha go ya go ya bone, ka go dira ditlhophpha tse di lekanang go tshwana le 4, go bala dilo 1–6

IKATISE: Go balela kwa godimo 1–10 le 5–1, go latedisanya dinomore 1–4, go gatelela mogopolopalo 1–4, kgolo go gaisa go ya go nnye go gaisa/ nnye go gaisa go ya go kgolo go gaisa

Ditirwana tsa phaposiborutelo yothle		Tirwana e e kaelwang ke morutabana	Ditirwana tsa Setešenetiyo	
Letsatsi 1	Go tlhagisa dikhoene tsa Aforikaborwa (disente le diranta). Phousetara 7.	Mogopolopalo 1–4. Phopholetso. Thskikhinya mme o tlhatlhamolole ka 4. Dikhoene tsa Aforikaborwa – nyalyana dikhoene le 'dilo mo lebenkeleng'. Dirisa dikhoene tse di segolotsweng; go rulaganya, go tlhaola, go nyalyana. Dira ditlhophpha tse di lekanang le 4 – ka go dirisa dibadi.	Tirwana 1	Dira khoene ya gago (neelana ka popego ya sediko).
Letsatsi 2	Papetla ya Dipalo – go reka, dipalokemotatelano ya ntlha go ya go ya bone.		Tirwana 2	Sebokwana sa dinomore – go latedisanya dinomore 1–4.
Letsatsi 3	Go nyalyana dikaratapalo/rontho le mafokopalo.		Tirwana 3	Thala kgotsa mamaretsa dilo go nyalyana le dinomore 1–4.
Letsatsi 4	Go rulaganya noomore 1–4, go reka.		Tirwana 4	Tirwana ya go kgomaretsa ka go dirisa nomore le mmala 1–4.
Letsatsi 5	Go rarabolola dipalo go fitlha ka 4 (Phousetara 7).			

Beke 3

KAROLOTENG: BOALO LE POPEGO (JEOMETERI)

SETLHOGO: Boemo, tlwaetso le dipono; tlhalosa, rulaganya le go bapisa dipopego tsa 2-D

TLHAGISA KITSO E NTSHWA: Boemo: fa tlase, go balela kwa godimo 1–15, go bala dilo 1–7, tlwaetso le dipono

IKATISE: Go balela kwa godimo –10 le 5–1; go latedisanya dinomore 1–4; go gatelela megopolopalo 1–4; go balela kwa morago 5–1; dipopego: sediko, khuttonne, khutloharo; boemo: fa pele ga, fa morago ga, mo godimo, magareng ga, gaufi le, ntlhakaelo: kwa pele, kwa morago

Ditirwana tsa phaposiborutelo yothle		Tirwana e e kaelwang ke morutabana	Ditirwana tsa Setešenetiyo	
Letsatsi 1	Maemo, motshameko wa dipopego.	Go bala. Dirisa dipopego go bontsha nomore e e nepagetseng (1–4). Boemo: gaufi le, magareng gafa pele ga, fa morago, mo godimo, kwa tlase. Ntlhakaelo: kwa pele, kwa morago.	Tirwana 1	Dikhutloharo tsa mebalá.
Letsatsi 2	Gatelela khutloharo.		Tirwana 2	Tirwana ya digwete (dikhutloharo tse di segolotsweng le go tsenya palo e e nepagetseng ya matlhare).
Letsatsi 3	Boemo (gaufi le, magareng ga, fa pele ga, fa morago ga, mo godimo, kwa tlase).		Tirwana 3	Therei e e tlhaolang –Go ya ka mmala. popego kgotsa bogolo (ponagalo e le nngwe).
Letsatsi 4	Gatelela dipopego tse di dirilweng, kanelo ka ga dipopego.		Tirwana 4	Go aga ditora ka dibolokokago.
Letsatsi 5	Go latela ntlhakaelo: Ke ya jang kwa ...? Phousetara 9. Tlwaetso le Dipono ka go dirisa koloi ya setshamekisi.			

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 Tlhatlhobo ya Thutano 4

1. A thutano e kgonne go fitlhelela ditsholofelo tsa gago?

2. Ke eng se o se ithutileng mo thutanong eno se se go thusitseng go gaisa?

3. A go na le sengwe se o sa se ratang kgotsa se se neng se go thatafalela?

4. O ya go diragatsa jang se o se ithutileng mo phaposiborutelong ya gago ya Mophato wa R?

5. A go na le se o se tshikhinyang go ka thusa go tokafatsa dithutano tse di latelang?
