



GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

GGT 2030
GROWING GAUTENG TOGETHER

IsiXhosa/English

INkqubo yeMathematika yokuPhucula yeBanga R Grade R Mathematics Improvement Programme



INdibano yoCweyo 6 • Workshop 6
Incwadi yokuSebenzela yoMthathinxaxheba • 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**.

The development and production of the training and classroom resources for the Grade R Mathematics and Language Improvement Project were made possible by generous project funding from the **United States Agency for International Development** and the **Zenex Foundation**.

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.

ACKNOWLEDGEMENTS

Special thanks to:

- The Gauteng Department of Education Curriculum, Teacher Education and Special Education Directorate officials for their contribution to the adaptation of our materials.
- The Western Cape Education Department (WCED) officials and teachers for their contribution to the successful implementation of the Grade R Mathematics Programme (R-Maths) in the Western Cape between 2016 and 2019.
- The R-Maths writing team: SDU staff and consultants.



The Grade R Mathematics Improvement Programme is adapted from *R-Maths*, first published in 2017 by the Schools Development Unit, University of Cape Town. Copyright of *R-Maths* is held by the University of Cape Town.

The Grade R Mathematics Improvement Programme is licensed under a Creative Commons Attribution 4.0 International Licence [Attribution-NonCommercial-ShareAlike].



This licence allows re-users to distribute, remix, adapt, and build upon the material in any medium or format for non-commercial purposes only, and only so long as attribution is given to the creator. If you remix, adapt, or build upon the material, you must license the modified material under identical terms. To view the full conditions for this licence, visit: <https://creativecommons.org/licenses/by-nc-sa/4.0/>

Programme conceptualisation and management: Cally Kuhne and Tholisa Matheza

Translation and publishing project management: Arabella Koopman

Translation co-ordination (Nguni languages): Pumeza Ngobozana

Translation: Fikiswa Magqashela

Editing (isiXhosa): Pumeza Ngobozana

Illustrations: Jiggs Snaddon-Wood

IProjekthi yeBanga R yokuPhucula yeMathematika noLwimi lilinge **leSebe leMfundo laseGauteng (Gauteng Department of Education)** kunye neqabane layo eliphambili, **iGauteng Education Development Trust**.

Ukwenziwa nokuveliswa kwezixhobo zoqequesho nezagumbi lokufundela kwensiwe kwayimpumelelo ngezibele zenkasomali ye**United States Agency for International Development** kwakunye ne**Zenex Foundation**.

IProjekthi yeBanga R yokuPhucula yeMathematika noLwimi ilawulwa yi**JET Education Services** ne**Schools Development Unit** yase**UCT** kunye no**Wordworks** njengamaqabane ezobugcisa.

ISchools Development Unit (SDU) kwi**Yunivesithi yaseKapa** (UCT) liqabane lezobugcisa kwimathematika kwiProjekthi yeBanga R yokuPhucula yeMathematika noLwimi. ISDU yiyunithi ngaphakathi kwiSchool of Education kwiYunivesithi yaseKapa egxile kupuhliso lobungcali bootitshala kwiMathematika, izifundo zeNzululwazi, iLitherasi/uLwimi kunye neZakhono zoBomi ukusuka kwiBanga R ukuya kwiBanga le-12. ISDU inikezela ngeziqinisekiso zootitshala kunye nezfundo ezifutshane ezivunyiweyo zeUCT, umsebenzi osekwe esikolweni, uphuhliso lweemathiriyeli kunye nophando lokuxhasa ukufundisa nokufunda kuzo zonke iimeko eMzantsi Afrika.

IMIBULELO

Senza umbulelo ongazenzisiyo:

- KwiCandelo leKharityhulam kwiSebe leMfundo laseGauteng, Izifundo zooTitshala kunye namagosa eCandelo elikhethekileyo leMfundo ngenkxaso yabo ekuvelisweni kwale mathirieli.
- Kumagosa eSebe leMfundo laseNtshona Koloni (WCED) kunye nootitshala ngegalelo labo kwimpumelelo yokuphunyezw a kweGrade R Mathematics Programme (R-Maths) eNtshona Koloni phakathi kweminyaka ka2016 no2019.
- Iqela lababhali beR-Maths: Abasebenzi kwiSDU.



INkubo yeMathematika yokuPhucula yeBanga R ilungiselelw kwiR-Maths, yapapashwa okokuqala ngowama2017 yiSchools Development Unit, kwiYunivesithi yaseKapa. Ilungelo lothicilelo leR-Maths ligcinwe yiYunivesithi yaseKapa.

INkubo yeMathematika yokuPhucula yeBanga R inelaisensi phantsi kwe-Creative Commons Attribution 4.0 International Licence [Attribution-NonCommercial-ShareAlike].



Le layisensi inika abasebenzisi bezi zixhobo ilungelo lokuba bangazihambisa kwabanye abantu, bangazixuba, bangazitshintsha baze bazandise kodwa oko bangakwenzeli inzuso okubalulekileyo kukuba bafumane imvume. Xa ubani ethe wazixuba, wazitshintsha okanye wazandisa, kufuneka ke izixhobo ezitshintshiweyo zibe nelayisensi ehambelana noko. Ukujonga imiqathango epheleleyo yale layisenisi, ndwendwela ku:
<https://creativecommons.org/licenses/by-nc-sa/4.0/>

Ukusungulwa nokuphathwa kwenkubo: Cally Kuhne kunye noTholisa Matheza

Ulawulo lwenguqulelo nopapasho lweprojekthi: Arabella Koopman

Ulungelelaniso lwenguqulelo (ilwimi zesiNguni): Pumeza Ngobozana

Umuquli: Fikiswa Magqashela

Umhleli (isiXhosa): Pumeza Ngobozana

Imizobo: Jiggs Snaddon-Wood

Contents

Overview

Purpose	page 6
Learning outcomes	page 6
Workshop content	page 6

Workshop content

Opening and reflection	page 8
Session 1: Space and Shape (Geometry)	page 14
Session 2: Measurement	page 18
Session 3: Numbers, Operations and Relationships	page 24
Session 4: Numbers, Operations and Relationships	page 32
Session 5: Term 2 Assessment	page 36
Closing activities	page 38
Appendix A: Term 2 Weekly Content Summary (Weeks 8–10)	page 40
Workshop 6 Evaluation Form	page 44

Isiqulatho

Amagqabantshintshi

Injongo	iphepha 7
Iziphumo zokufunda	iphepha 7
Umxholo wendibano yocweyo	iphepha 7

Umxholo wendibano yocweyo

Ukuvula nocamngco	iphepha 9
Iseshoni 1: IsiThuba neMilo (iJiyometri)	iphepha 15
Iseshoni 2: Umlinganiselo	iphepha 19
Iseshoni 3: Amanani, iiOpareyshini noLwalamano	iphepha 25
Iseshoni 4: Amanani, iiOpareyshini noLwalamano	iphepha 33
Iseshoni 5: Uhlolo lweKota 2	iphepha 37
Imisebenzi yokuqukumbela	iphepha 39

Isingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki

(Iiveki 8–10)	iphepha 41
IFomu yokuHlola yeNdibano yoCweyo 6	iphepha 45

Overview

Purpose

This is the sixth 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 with the implementation of the Maths Programme in their classrooms, especially the Content Areas covered in Term 2 Weeks 8–10. Participants will reflect on their ongoing assessment of learners' progress and will document developmental concerns related to the learners that may require special interventions and support. Participants will also reflect on teaching strategies that strengthen learners' problem-solving skills.

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 2 Weeks 4–7
- ◆ To explore strategies to support teaching maths in Grade R
- ◆ To reflect on the Maths Programme's principles in the weekly plan
- ◆ To engage with the Maths Programme content of Term 2 Weeks 8–10 (Space and Shape (Geometry); Measurement; Numbers, Operations and Relationships)
- ◆ To apply knowledge of informal, continuous assessment to learning and teaching

Workshop content

◆ Opening and reflection	(1 hour)
◆ Session 1: Space and Shape (Geometry)	(1 hour)
TEA	
◆ Session 2: Measurement	(1 hour)
◆ Session 3: Numbers, Operations and Relationships	(1 hour)
LUNCH	
◆ Session 4: Numbers, Operations and Relationships	(45 minutes)
◆ Session 5: Term 2 Assessment	(1 hour)
◆ Closing activities	(15 minutes)

Amagqabantshintshi

Injongo

Le ye yesithandathu kwezilishumi elinambini iindibano zocwego zeNkqubo yeMathematika yokuPhucula yeBanga R (iNkqubo yeMathematika), eziyinxalenye yeProjekthi yeBanga R yokuPhucula yeMathematika noLwimi yeSebe leMfundo laseGauteng (Gauteng Department of Education (GDE)).

Injongo yale ndibano yocwego kukuncedisa ootitshala ukuba baphumeze iNkqubo yeMathematika eziklasini zabo, ngakumbi kwiiNkalo zomXholo esezenziwe kwiKota 2 iiVeki 8–10. Abathathinxaxheba baya kucamngca ngenqubela yohlolo oluqhubekeyo lwabafundi yaye kuya kubhalwa phantsi izinto ezixhalabisayo zophuhliso eziphathelene nabafundi abanokufuna uncedo nenkxaso eyodwa. Abathathinxaxheba baya kucamngca ngeendlela abazisebenzisileyo ukuqinisa izakhono zabafundi zokusombulula iingxaki.

Ubhekiso kwiiNkalo zomXholo weMathematika weBanga R luthathwe *kwiNkcazeloyePolisi yeKharityhulam nokuHlola (CAPS): IBanga R iMathematika (idrafti yokugqibela)*, 2011, iSebe leMfundo esiSiseko, yaseMzantsi Afrika.

Iziphumo zokufunda

- ◆ Ukuthetha ngokuphunyezwu kweKota 2 iiVeki 4–7
- ◆ Ukuqwalasela amacebo okunika inkxaso ekufundisweni kwemathematika kwiBanga R
- ◆ Ukucamngca kwimimiselo yeNkqubo yeMathematika kwisicwangciso seveki
- ◆ Ukusebenza ngomxholo weNkqubo yeMathematika yeKota 2 iiVeki 8–10 (IsiThuba neMilo (ijiyometri); Umlinganiselo; Amanani, iiOpareyshini noLwalamano)
- ◆ Ukusebenzisa ulwazi olungekho sikweni, uhlolo oluqhubekeyo lokufunda nokufundisa

Umxholo wendibano yocwego

- | | |
|--|-----------|
| ◆ Ukuvula nocamngco | (1 iyure) |
| ◆ Iseshoni 1: IsiThuba neMilo (ijiyometri) | (1 iyure) |

ITI

- | | |
|--|-----------|
| ◆ Iseshoni 2: Umlinganiselo | (1 iyure) |
| ◆ Iseshoni 3: Amanani, iiOpareyshini noLwalamano | (1 iyure) |

ISIDLO SASEMINI

- | | |
|--|--------------|
| ◆ Iseshoni 4: Amanani, iiOpareyshini noLwalamano | (45 imizuzu) |
| ◆ Iseshoni 5: Uhlolo lweKota 2 | (1 iyure) |
| ◆ Imisebenzi yokuqukumbela | (15 imizuzu) |

Opening and reflection

1 hour

Here is the *Take back to school* task from Workshop 5.



Take back to school task (Workshop 5)

1. Continue to use the Record of Continuous Assessments in *Activity Guide: Term 2* to assess your learners. Make use of your ongoing observation notes to build up evidence of what learners understand and can do.
2. Identify any concerns you have about individual learner's emerging grasp of maths concepts.
3. Bring copies of rubrics that you used for maths assessment to the next workshop.
4. Bring a completed assessment record for one learner to the next workshop.
5. Use *Activity Guide: Term 2* to plan and implement Weeks 4–7 of the Maths Programme, including creating a maths area with a focus on the concept for each week.
6. Make notes on what worked well, what did not work so well and what you could do differently to improve teaching and learning.



Activity 1

1. In your groups, discuss your progress in implementing Term 2 Weeks 4–7.
 - ◆ What worked well (strengths)?
 - ◆ What did not work well (challenges)?
 - ◆ What could you do to improve teaching and learning in your classroom?

Record the main points of your discussion on flipchart paper to share with the other groups later.

Ukuvula nocamngco

1 iyure

Nanku Umsebenzi *ekubuyelwa nawo esikolweni* othathwe kwiNdibano yoCweyo 5.



Umsebenzi ekubuyelwa nawo esikolweni (iNdibano yoCweyo 5)

1. Qhubeka nokusebenzisa iRekhodi yoHlolo oluQhubekayo ekwisi*Khokelo semiSebenzi: iKota 2* ukuhlola abafundi bakho. Sebenzisa amanqaku akho oqwälaselö oluqhubekeyo ukwakha ubungqina bokuba bayaqonda na kwanento abaya kuyenza.
2. Khetha naziphi na izinto ezixhalabisayo onazo malunga nendlela aqalisa ngayo ukubamba iikhonsepthi zemathematika umfundi.
3. Yiza neekopi zeerubhriki onazo ozisebenzisileyo kuhlolo lwemathematika kwindibano yocweyo olulandelayo.
4. Yiza nerekhodi yohlolo eyenziweyo yomfundi omnye kwindibano yocweyo elandelayo.
5. Usebenzisa *isiKhokelo semiSebenzi: iKota 2* ukucwangcisa nokusebenzisa iNkqubo yeMathematika kwiiVeki 4–7, kuquka nokwenza indawo yemathematika egxile kwikhonsepthi kwiveki nganye.
6. Ukwenza amanqaku malunga nokusebenze kakuhle, nokungasebenzanga kakuhle noko kufuneka kwenziwe ngokwahlukileyo ukuphucula ukufundisa nokufunda.



Umsebenzi 1

1. Ngokwamaqela, xoxani ngenkqubela yenu ekuphumezeni iKota 2 iiVeki 4–7.
 - ◆ Yintoni esebenze kakuhle (eqhube kakuhle)?
 - ◆ Yintoni engasebenzanga kakuhle (imingeni)?
 - ◆ Ungenza ntoni ukuphucula ukufundisa nokufunda eklasini yakho?

Bhalani amanqaku aphambili kwingxoxo yenu ephepheni lefliphthathi ukuze nibonise kwamanye amaqela ekuhambeni kwexesha.

2. Discuss how successful you were in:
 - ◆ recording notes about individual learners after each teacher-guided activity in Weeks 4–7.
 - ◆ completing the Term 2: Record of Continuous Assessments on pages 190–193 of *Activity Guide: Term 2* for each learner.

Record the main points of your discussion on your flipchart paper.

3. Discuss one learner's areas of success and/or difficulty and how you recorded these. Record the main points of your discussion on your flipchart paper.

In the *Take back to school task* in Workshop 5 you were asked to bring copies of the learner assessment rubrics you use as part of the Maths Programme to this workshop. In Activity 2, your group will discuss these rubrics and how assessment information is captured and shared. In Session 5, we will discuss rubrics in more detail.



Activity 2

1. In your groups, share examples of maths rubrics you have used as part of your assessment process.
2. Discuss how you capture the learners' progress on the SA-SAMS system and how this information is shared with parents.

Record the main points of your discussion on flipchart paper to share with the other groups later.

2. Xoxani ngendlela eniphumelele ngayo:
- ◆ ekurekhoden iamanqaku ngomfundi ngamnye emva komsebenzi ngamnye okhokelwa ngutitshala kwiiVeki 4–7.
 - ◆ ekwenzeni iKota 2: iRekhodi yoHlolo oluQhubekayo amaphepha 190–193 *kwisiKhokelo semiSebenzi: iKota 2* kumfundi ngamnye.

Bhalani iamanqaku aphambili engxoxo yenu kwiphepha lefliptshathi.

3. Xoxani ngeenkalo zempumelelo zomfundi kunye/okanye ubunzima nendlela enikurekhode ngayo oku. Bhala iamanqaku aphambili engxoxo yenu kwiphepha lefliptshathi.
-
-
-

KuMsebenzi ekubuyelwa nawo esikolweni okwiNdibano yoCweyo 5 uyacelwa ukuba uze neekopi zeerubriki zohlolo zomfundi ozisebenzise njengenxalenye yeNkqubo yeMathematika kule ndibano yocweyo. KuMsebenzi 2, iqela lakho liya kuxoxa ngezi rubriki nendlela ekubhalwe ngayo iinkcukacha zohlolo kwaza kwabelwana ngazo . KwiSeshoni 5, siza kuxoxa ngeerubriki nangakumbi.



Umsebenzi 2

1. Emaqeleni enu, bonisanani imizekelo yeerubhriki zemathematika enizisebenzisileyo njengenxalenye yenqubo yenu yohlolo.
2. Xoxani ngendlela yokubhala inkqubela yabafundi kwinkqubo yeSA-SAMS nendlela ekwabelenwe ngayo ngolwazi kunye nabazali.

Bhalani iamanqaku engxoxo yenu kwiphepha lefliptshathi ukuze kamva kwabelwane ngayo namanye amaqela.

Video 1

Watch the video of a teacher observing a group of learners completing a maths activity. Listen to her talking about how she observes and records her learners' progress and how she deals with their different levels of competence.

Discuss how you deal with learners who are not achieving success in the structured weekly plans, as well as those learners who exceed expectations.

The level principle: Not all learners progress at the same speed. Some learners need more time to consolidate a skill or concept while others grasp ideas more quickly. The challenge for teachers is to accommodate learners at different levels and to adapt the weekly plan to provide support or extension activities where necessary.





Ividiyo 1

Bukelani ividiyo kositshala oqwalasele iqela labafundi besenza umsebenzi wemathematika. Mamelani ethetha ngendlela abona ngayo aze arekhode inkqubela yabafundi bakhe nangendlela akhawulelana ngayo namanqanaba angafaniyo olwazi nobuchule.

Xoxani ngendlela enikhawulelana ngayo nabafundi abafumana ubunzima bokuphumelela kwizicwangciso ezelungiselelwe iveki nganye, kwakunye nabo bafundi baqhube ngaphezu kokuba kulindelekile

Umgaqo wenqanaba: Asingabo bonke abafundi abaya kuqhuba ngesantya esifanayo. Abanye abafundi bafuna ixesha lokudibana isakhono okanye ikhonsepthi ngeli xesha abanye behkawuleza ukubamba oko bakuxelelwayo. Umngeni abajongene nawo ootitshala kukulungiselela abafundi abakumaqanaba ohlukaneyo nokwenza isicwangciso seveki nganye sibe nemisebenzi elungele ukunika inkxaso okanye imisebenzi eyongeziweyo apho kukho imfuneko.



Session 1: Space and Shape (Geometry)

1 hour

This workshop focuses on teaching the content of Term 2 Weeks 8–10. The focus of Term 2 Week 8 is Space and Shape (Geometry).

Terms 1–4 Content overview: Space and Shape (Geometry)

Refer to the content overview for Space and Shape (Geometry) on pages 126–131 of the *Concept Guide* and complete Activity 3.



Activity 3

1. What Space and Shape content has already been introduced in Terms 1 and 2?

2. What concepts still need to be covered in Term 2?

Properties of shapes

Learners need many opportunities to compare and sort shapes according to their properties and to describe the similarities and differences of shapes.



Activity 4

The facilitator will give your group a set of shapes.

1. Sort the shapes.
2. Discuss why you sorted them in this way.
3. Sort the shapes in another way.
4. Discuss why you sorted them in this way.

Isehoni 1: IsiThuba neMilo (iJiyometri)

1 iyure

Le ndibano yocweyo igxile ekufundiseni umxholo weKota 2 iiVeki 8–10. Ekuza kugxilwa kuko kwikota 2 iVeki 8 isiThuba neMilo (iJiyometri).

Amagqabantshintshi ngomxholo weeKota 1–4: IsiThuba neMilo (iJiyometri)

Qwalaselani amagqabantshintshi ngomxholo wesiThuba neMilo (iJiyometri) akumaphepha 126–131 kwisiKhokelo seeKhonsepthi nenze Umsebenzi 3.



Umsebenzi 3

1. Ngowuphi umxholo wesiThuba neMilo osele wazisiwe kwikota 1 neye2?

2. Zeziphi iikhonsepthi ezisafuna ukwenziwa kwikota 2?

Iimpawu zeemilo

Abafundi bafuna amathuba amaninzi okuthelekisa nokuhlela iimilo ngokweempawu baze bachaze izinto ezifana nezahluke ngazo iimilo.



Umsebenzi 4

Umbhexeshi uza kunika iqela lakho iseti yeemilo.

1. Hlelani iimilo.
2. Chazani ukuba kutheni nizihlele ngolu hlobo.
3. Hlelani iimilo ngolunye uhlobo.
4. Chazani ukuba kutheni nizihlele ngolu hlobo.

Term 2 Content Summary: Week 8

Refer to Appendix A: Term 2 Weekly Content Summary (Weeks 8–10). Read the content overview for Week 8: Space and Shape (Geometry) on page 20 of *Activity Guide: Term 2*.

The Space and Shape (Geometry) Content Area was also the focus of Term 2 Weeks 3 and 4. In previous workshops, you have discussed the Space and Shape concepts that need to be covered.

The Weekly Content Summary for Week 8 provides an overview of planning for the week: whole class activities, teacher-guided activities and workstation activities done in independent small groups.



Activity 5

1. Take a few minutes to familiarise yourself with the Week 8 content in Appendix A: Term 2 Weekly Content Summary (Weeks 8–10).
2. Match this with the content on pages 138–153 of *Activity Guide: Term 2*. Identify how the whole class, teacher-guided and workstation activities link with the Week 8 content in Appendix A.

IsiShwankathelo soMxholo weKota 2: IVEKI 8

Jonga kwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki (IiVeki 8-10). Funda amagqabantshintshi ngomxholo weVeki 8: IsiThuba neMilo (Ijiyometri) kwiphepha 21 *kwisiKhokelo semiSebenzi: Ikota 2.*

IsiThuba neMilo (Ijiyometri) iNkalo yoMxholo yenze into ekwakugxilwe kuyo kwiKota 2 iiVeki 3 no4. Kwiindibano zocweyo ezidlulileyo, nioxo ngekhonsephthi eza kwenziwa yesiThuba neMilo.

IsiShwankathelo soMxholo weVeki neVeki kaVeki 8 sinika amagqabantshintshi ngesicwangciso seveki: imisebenzi yeklasi yonke, imisebenzi ekhokelwa ngutitshala nemisebenzi yesitishi sokusebenzela eyenziwa ngokuzimela ngamaqela amancinci.



Umsebenzi 5

1. Thatha imizuzu embalwa uziqhelisa nomxholo weVeki 8 kwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki (IiVeki 8-10).
2. Tshatisa oku nomxholo okumaphepha 138-153 *kwisiKhokelo semiSebenzi: Ikota 2.* Bonakalisa indlela enxibelelana ngayo imisebenzi yeklasi yonke, imisebenzi ekhokelwa ngutitshala neyezitishi zokusebenzela noMxholo weVeki 8 kwiSingeniso A.

Session 2: Measurement

1 hour

The focus of Term 2 Week 9 is Measurement.

Terms 1–4 Content overview: Measurement

Refer to the content overview for Measurement on pages 132–135 of the *Concept Guide*.



Activity 6

1. What Measurement concepts are covered in Term 2?

2. What are the differences between the Maths Programme content and the CAPS content?

Directly comparing objects: length

In Term 1 of the Maths Programme the focus of the Measurement Content Area was time (day, night, days of the week, sequencing events, etc.) and the height chart. In Term 2 Week 9, the focus is on using non-standard units to measure and compare length.



Activity 7

1. **Direct comparison**

Choose a partner to stand next to. The rest of your group members should compare your heights.

- ◆ Who is taller? _____
- ◆ Who is shorter? _____
- ◆ Find a third person who is taller than both of these people.

2. **Using non-standard units of measurement**

Choose three objects (e.g. a key, a cellphone, a purse).

- ◆ Use one of these items at a time to measure this *Participant's Workbook*.
- ◆ Report your findings to the group.

Isehoni 2: Umlinganiselo

1 iyure

Ekugxilwe kuko kwiKota 2 neVeki 9 nguMlinganiselo.

Amagqabantshintshi ngomxholo weKota 1–4: Umlinganiselo

Bhekisa kumagqabantshintshi ngomxholo oMlinganiselo kumaphepha 132–135
kwisiKhokelo seeKhonsepthi.



Umsebenzi 6

1. Zeziphi iikhonsepthi zoMlinganiselo ezenziweyo kwiKota 2?

2. Ngowuphi umahluko phakathi komxholo weNkqubo yeMathematika nomxholo kaCAPS?

Uthelekiso ngqo lwezinto: ubude

KwiKota 1 yeNkqubo yeMathematika iNkalo yoMxholo yoMlinganiselo ebekugxilwe kuyo lixesha (imini, ubusuku, iintsuku zeveki, iinkqubo zokulandeelanisa, njnl.) netshati yomphakamo. KwiKota 2 iVeki 9, kugxilwe ekusebenziseni iiyuniti ezingekho sikweni ukwenza umlinganiselo nokuthelekisa ubude.



Umsebenzi 7

1. **Uthelekiso olungqalileyo**

Khetha iqabane oza kuma ecaleni kwalo. Amanye amalungu eqela lakho mabathelekise umphakamo.

- ◆ Ngomphi omde kunomnye? _____
- ◆ Ngomphi omfutshane kunomnye? _____
- ◆ Khangela umntu wesithathu omde kunaba bantu bobabini.

2. **Ukusebenzisa iiyuniti ezingekho sikweni zomlinganiselo**

Khetha izinto zibe ntathu (umz. isitshixo, iselfowuni, ipesi).

- ◆ Sebenzisa enye yezi zinto ngexesha lokwenza umlinganiselo kwi*Ncwadi yokuSebenzela yoMthathinxaxheba*.
- ◆ Nika ingxelo ngezinto ezifunyaniswe liqela.

Term 2 Content Summary: Week 9

Refer to Appendix A: Term 2 Weekly Content Summary (Weeks 8–10). Read the content overview for Week 9: Measurement on page 20 of *Activity Guide: Term 2*.

Read the whole class activities for Week 9 on pages 154–165 of *Activity Guide: Term 2*.



Activity 9

In your groups, discuss how length is taught during the whole class activities in Week 9.

1. What could you do if a learner is not yet able to compare and order objects according to length – long/longer and short/shorter by the end of Week 9?

2. What could you do if some learners complete a workstation activity successfully quicker than planned?

IsiShwankathelo somXholo weKota 2: Iveki 9

Jonga kwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki (IiVeki 8–10). Funda amagqabantshintshi ngomxholo weVeki 9: Umlinganiselo kwiphepha lama21 *kwisiKhokelo semiSebenzi: Ikota 2.*

Funda imisebenzi yeklasi yonke yeVeki 9 kumaphepha 154–165 *kwisiKhokelo semiSebenzi: Ikota 2.*



Umsebenzi 9

Kumaqela enu, xoxani ngendalela obufundiswa ngayo ubude ngexesha lemisebenzi yeklasi yonke kwiVeki 9.

1. Ungenza ntoni xa umfundi engekakwazi ukuthelekisa nokulandeelanisa izinto ngokobude – nde/nde kune-nofutshane/futshane kune- ekupheleni kweVeki 9?

2. Yintoni ongayenza xa abanye abafundi bewenza ngempumelelo nangokukhawuleza umsebenzi wesitishi sokusebenzela kunoko bekumiselwe?

Session 3: Numbers, Operations and Relationships

1 hour

The focus of Term 2 Week 10 is Numbers, Operations and Relationships.

Terms 1–4 Content overview: Numbers, Operations and Relationships

The Numbers, Operations and Relationships Content Area was also the focus in Weeks 1, 2 and 5 of Term 2, and you discussed the number concepts that need to be covered in previous workshops. Look at the content overview for Numbers, Operations and Relationships on pages 114–123 of the *Concept Guide*.



Activity 10

What number concepts still need to be covered in Term 2?

Problem solving

Teachers need to provide learners with many opportunities to solve problems so that they can apply their maths knowledge and skills in new contexts. All games and activities involve problem solving. Word problems in maths introduce a specific type of problem solving that involves solving addition, subtraction, multiplication and division problems. In Grade R learners solve addition and subtraction problems by counting and using concrete apparatus to help them find a solution. They use grouping and one-to-one sharing to solve multiplication and division problems.

The biggest challenge in presenting word problems to learners, is to ensure that there is appropriate questioning and use of language. When teachers present a word problem, they need to listen carefully to learners' responses and guide them to solve the problem using a strategy that is suitable for their level of understanding.

The posters in the *Poster Book* have been designed to provide learners with a set of pictures that relate to their lives and provide contexts for solving real-life problems.

In Week 10 Day 4 (page 180 of *Activity Guide: Term 2*), Poster 1 is used to encourage learners to solve problems that involve numbers 1–5.

IseShoni 3: Amanani, iiOpareyshini noLwalamano

1 iyure

Ekuza kugxilwa kuko kwikiKota 2 iVeki 10 ngaManani, iiOpareyshini noLwalamano.

Amagqabantshintshi ngomxholo weKota 1-4: Amanani, iiOpareyshini noLwalamano

INkalo yomXholo waManani, iiOpareyshini noLwalamano bekukwagxilwe kuwo kwiiVeki 1, 2 neye5 yeKota 2, kwaye nioxo nangeengqikelelomanani ezisafuna ukwenziwa kwiindibano zocweyo ezidlulileyo. Jonga amagqabantshintshi ngomxholo waManani, iiOpareyshini noLwalamano kumaphepha 114–123 *kwisiKhokelo seeKhonsepthi*.



Umsebenzi 10

Zeziphi iingqikelelomanani ezisafuna ukwenziwa kwikiKota 2?

Ukusombulula iingxaki

Ootitshala kufuneka banike abafundi amathuba amaninzi okusombulula iingxaki ukuze bakwazi ukusebenzisa ulwazi nezakhono zabo zemathematika kwimixholo emitsha. Yonke imidlalo nemisebenzi ibandakanya ukusonjululwa kwengxaki. Iingxaki zamagama kwimathematika zazisa udidi olulodwa lokusombulula ingxaki oluquka ukusombulula ukudibanisa, ukuthabatha, ukuphindaphinda, nokwahlulahlula. Abafundi beBanga R basombulula iingxaki zokudibanisa nezokuthabatha ngokubala nokusebenzisa izixhobo eziphathekayo ukubancedisa bafumane isisombululo. Basebenzisa ukuhlela ngokwamaqela nokwaba nganye nganye ukusombulula iingxaki zokuphindaphinda nokwahlulahlula.

Owona mngeni mkhulu ekusebenzeni ngeengxaki zamagama kubafundi, kukuqinisekisa ukuba imibuzo efanelekileyo ikhona kwanokusetyenziswa kolwimi ngokufanelekileyo. Xa ootitshala besebenza ngengxaki yegama, kufuneka bazimamelisise iimpendulo zabafundi bandule ukubakhokela basombulule ingxaki besebenzisa ubuchule obufanele inqanaba labo lokuqonda.

Iipowusta ezikwi*Ncwadi yePowusta* zenzelwe ukunika abafundi uluhlu lwemifanekiso enxulumene nobomi babo zikwanika neemixholo yokusombulula iingxaki kubomi babo bokwenene.

KwiVeki 10 uSuku 4 (iphepha 181 *lesiKhokelo semiSebenzi: Ikota 2*), iPowusta 1 isetyenziselwe ukukhuthaza abafundi ukuba basombulule iingxaki eziquka amanani 1–5.



Activity 11

In your groups, refer to Poster 1. Think of appropriate word problems for each of these skills:

- ◆ comparing
 - ◆ matching
 - ◆ counting
 - ◆ addition
 - ◆ subtraction
 - ◆ grouping
 - ◆ equal sharing.
-
-
-
-
-
-
-
-
-
-

When you do word-problem activities with your learners, allow them to use their fingers or counters to help them solve the problems.

One of the sections in Numbers, Operations and Relationships is, ‘Solve problems in context’. In your groups, read the content overview for Term 2 for this section on page 120 of the *Concept Guide*. Then complete Activity 12.



Activity 12

Reflect on Activity 11.

1. What concepts and skills are taught and learnt in the topic: Problem-solving techniques?
-
-



Umsebenzi 11

Kumaqela enu, khangelani kwiPowusta 1. Cingani ngeengxaki zamagama ezifanelekileyo ngesakhono ngasinye kwezi:

- ◆ ukuthelekisa
 - ◆ ukutshatisa
 - ◆ ukubala
 - ◆ ukudibanisa
 - ◆ ukuthabatha
 - ◆ ukuhlela ngokwamaqela
 - ◆ ukwaba ngokulinganayo.
-
-
-
-
-
-
-
-
-
-

Xa usenza imisebenzi yengxaki yamagama kunye nabafundi bakho, bavumele basebenzise iminwe yabo okanye izixhobo zokubala ukubancedisa basombulule iingxaki.

Elinye lamacandelo kuManani, iiOpareyshini noLwalamano ‘kukuSombulula iiNgxaki ngokwemeko’. Kumaqela enu, fundani amagqabantshintshi ngomxholo weKota 2 yeli candelo kwiphepha lama121 kwisiKhokelo seeKhonsepthi. Emva koko yenzani Umsebenzi 12.



Umsebenzi 12

Camngca ngoMsebenzi 11.

1. Zeziphi iikhonsepthi nezakhono ezifundiswayo nezfundiweyo kwesi sihloko: ubuchule bokusombulula iingxaki?
-
-

2. What concepts and skills are taught and learnt in topic: Addition and subtraction?
-
-

Estimation

Learners develop estimation skills and make a ‘sensible’ guess about ‘how many objects’ there are in a collection. During measurement activities, they estimate how heavy or how long something is, or how many cups will fill a jug before they do the actual measuring.



Activity 13

The facilitator will show you two jars. Estimate how many objects are in each jar and respond to her questions.

Learners need to be able to use terms such as: *too few, too many, more than, enough, not enough, nearly, close to, about the same, just under, just over*.

Teachers can plan estimation activities that encourage learners to make sensible guesses about the quantity of a group of objects or the measurement of an object.

Term 2 Content Summary: Week 10

Refer to Appendix A: Term 2 Weekly Content Summary (Weeks 8–10). Read the content overview for Week 10: Numbers, Operations and Relationships on page 20 of *Activity Guide: Term 2*.



Activity 14

1. What are the topics for Week 10?
-
-

2. Zeziphi iikhonsepthi nezakhono ezifundiswayo nezifundiweyo kwisihloko:
Ukudibanisa nokuthabatha?
-
-

Uthekelelo

Abafundi bakhulisa izakhono zothekelola nokuqashela ‘ngokufanelekileyo’ malunga nokuba ‘zingaphi izinto’ ezikwingqokelela. Ngexesha lemisenbenzi yomlinganiselo, bathekelela ukuba inzima kangakanani okanye inde kangakanani na into, okanye zingaphi iikomityi eziya kugcwalisa ijagi ngaphambi kokuba benze owona mlinganiselo wayo.



Umsebenzi 13

Umbhexeshi uya kubonisa ngezikhongozeli ezimbini. Thekelela ukuba zingaphi izinto ezikwisikhongozeli uphendule nemibuzo yakhe.

Abafundi kufuneka bakwazi ukusebenzisa amagama afana no-: *zimbalwa kakhulu, zininzi kakhulu, zingaphezulu kune-, zanele, azanelanga, phantse, kufutshane ne-, ziphantse zafana, zingaphantsi nje kancinci, zingaphezulu nje kancinci.*

Ootitshala bay akenza isicwangciso semisebenzi yokuthekelela eya kukhuthaza abafundi ukuba baqashisele ubungakanani beqela lezinto okanye umlinganiselo wento.

Ikota 2 IsiShwankathelo soMxholo: IVEKI 10

Jonga kwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki (IiVeki 7–10). Funda amagqabantshintshi ngomxholo eVeki 10: Amanani, iiOpareyshini noLwalamano kwiphepha lama21 kwisiKhokelo seMisebenzi: *Ikota 2.*



Umsebenzi 14

1. Zeziphi izihloko zeVeki 10?
-
-

2. What new knowledge is introduced in this week?

3. What skills from previous weeks are practised?

Refer to the estimation activities in Week 10 (*Activity Guide: Term 2*, pages 174 (Day 1), 176 (Day 2) and 178 (Day 3)).

2. Loluphi ulwazi olutsha olwaziswayo kule veki?

3. Zeziphi izakhono zeeveki ezidlulileyo eziqheliwayo?

Jonga kwimisebenzi yothekelelo kwiVeki 10 (*IsiKhokelo semiSebenzi: Ikota 2*, amaphepha 175 (Usuku 1), 177 (Usuku 2) nele179 (Usuku 3)).

Session 4: Numbers, Operations and Relationships

45 minutes

The Maths Programme focuses on one main Content Area each week. You will have noticed that even though when the weekly Content Area Focus is not ‘number’, the number routines continue every day of each week. The reason for this is that repetition and practice are essential for consolidating the learners’ developing number skills.

The whole class activities for each day of the week always start with three number routines:

- ◆ a song or rhyme
- ◆ oral counting
- ◆ counting objects.

These three number routines are planned to match the number range for each term.



Activity 15

Find the Term 2 daily number routines in *Activity Guide: Term 2* and complete the table. Week 1 has been done for you.

Week	Content Area Focus	Song or rhyme	Oral counting	Counting objects
1	Numbers, Operations and Relationships	A rhyme from Term 1	1–10 5–1	1–5 (birthday chart)
2				
3				

IseShoni 4: Amanani, iiOpareyshini noLwalamano

45 imizuzu

INkqubo yeMathematika igxininisa kwiNkalo yomXholo enye engundoqo kwiveki nganye. Uya kuqaphela ukuba nangona iNkalo yomXholo ekuGxininiswa kuyo ngeveki ‘ingelonani’, inkqubo yamanani iyaqhubeKA yonke imihla ivenki nganye. Isizathu soku kukuba uphindaphindo noqheliso lubaluleke kakhulu ukomeleza izakhono zamanani ezikhulayo zabafundi.

Imisebenzi yeklasi yonke yomhla ngamnye weveki isoloko iqala ngeekqubo ezintathu zamanani:

- ◆ ingoma okanye isicengcelezo
- ◆ ukubala ngomlomo
- ◆ ukubala izinto.

Ezi nkqubo zesiqhelo zintathu zamanani zilungiselelwE ukutshatiswa noluhlu lwamanani kwikota nganye.



Umsebenzi 15

Khangela kwiKota 2 iinkqubo zamanani zemihla ngemihla *kwisiKhokelo semiSebenzi: IKota 2 ugqibezele itheyibhile. IVeki 1 sele uyenzelwe.*

IVeki	INkalo yomXholo eku-Gxininiswa kuyo	Ingoma okanye isicengcelezo	Ukubala ngomlomo	Izinto zokubala
1	Amanani, iiOpareyshini noLwalamano	Isicengcelezo seKota 1	1–10 5–1	1–5 (itshathi yemihla yokuzalwa)
2				
3				

4				
5				
6				
7				
8				
9				
10				

Having looked through the number content for Term 2, you will have noticed that the number routines are practised every day of each week regardless of the Content Area Focus and that the progression in number range increases across the term.

4				
5				
6				
7				
8				
9				
10				

Njengoko nijongile kumxholo wamanani kwiKota 2, niya kuqaphela ukuba iinkqubo zamanani ziqheliwa yonke imihla kwiveki nganye nokuba ithini na iNkalo yomXholo ekuGxininiswa kuyo kwanokuba luyaqhubeka ulwandiso lwamanani kwikota yonke.

Session 5: Term 2 Assessment

1 hour



Video 2

Watch the video of a teacher presenting word problems to a small group of learners.

Observe how each learner solves the problem. Notice how the teacher uses prompts when a learner has difficulty.



Activity 16

Look at the rubric on page 106 of the *Concept Guide*.

In your groups, discuss how you would score each of the learners using this scale. Give reasons for your decisions based on the assessment criteria for each rating code.

IseShoni 5: UhloLo IweKota 2

1 iyure



Ividiyo 2

Bukelani ividiyo kositshala ebonisa iingxaki zamagama kwiqela elincinci labafundi.

Qwalasela indlela umfundu asombulula iingxaki ngayo. Qaphela indlela ayisebenzisa ngayo imibuzo exhokonxayo xa umfundu efumana ubunzima.



Umsebenzi 16

Jonga irubhriki ekwiphepha 107 lesi *Khokelo see Khosepthi*.

Kumaqela enu, xoxani ngendlela eniya kunika ngayo amanqaku umfundu ngamnye nisebenzisa esi sikali. Nikani izizathu zezigqibo zenu ngokusekwe kwinkqubo yokugweba yohlolo ngalunye kwikhowudi yokureyitha.

Closing activities

15 minutes



Activity 17

Workshop reflection: Take a few minutes to reflect on the day. Page through your *Participant's Workbook* to remind yourself of what was covered. Write down any questions or comments to share with the group.



Take back to school task

1. Use *Activity Guide: Term 2* to plan and implement Weeks 8–10 of the Maths Programme.
2. Write an evaluation of what worked well, what did not work so well and what you could do differently to improve teaching and learning.
3. Bring your evaluation to the next workshop.

Evaluation

Complete the Evaluation Form.

Imisebenzi yokuqukumbela

15 imizuzu



Umsebenzi 17

Ucamngco ngendibano yocweyo: Thatha imizuzu embalwa ucamngce ngosuku. Tyhila *iNcwadi yokuSebenzela yoMthathinxaxheba* uzikhumbuza ngoko kwensiweyo. Bhala phantsi nayiphi imibuzo okanye iimbono ozakwabelana ngazo neqela.



Umsebenzi ekubuyelwa nawo esikolweni

1. Sebenzisa *isiKhokelo semiSebenzi: Ikota 2* ukucwangcisa nokuphumeza iNkqubo yeMathematika kwiiVeki 8–10.
2. Bhala uphononongo lwezinto ezisebenze kakuhle, ezingaqhubanga kakuhle kwanento onokuyenza ukuphucula ukufundisa nokufunda.
3. Yiza nophononongo lwakho kwindibano yocweyo elandelayo.

Uhlolo

Gcwalisa iFomu yoHlolo.

APPENDIX A: TERM 2 WEEKLY CONTENT SUMMARY (WEEKS 8-10)

Term 2: Activity Plan

Week 8				
CONTENT AREA: SPACE AND SHAPE (GEOMETRY)				
TOPIC: Properties of shapes – compare same and different, sort according to properties; position; orientation and views				
INTRODUCE NEW KNOWLEDGE: Follow direction and midline crossing				
PRACTISE: Oral counting 1-20, counting backwards from 7, sequencing numbers 1-5, counting objects 1-7, reinforce number concept 1-5, what number comes before/after, practise using all shapes		Teacher-guided activity	Workstation activities	
Whole class activities			Activity 1	Sorting activity – using cut-out shapes.
Day 1	Forwards/backwards.	Counting – show me 1-3, 5-7 counters.	Activity 2	Make shapes using playdough and make a copy.
Day 2	Reinforce all shapes (I spy ...).	Working with all taught shapes.	Activity 3	Masking tape shapes – learners follow shapes using blocks.
Day 3	Shape game.	Midline crossing. Position – direction.	Activity 4	Match shapes using shape cards.
Day 4	What can I do: Lost my ... (shape).	Forwards/backwards.		
Day 5	Obstacle course (requires a big space/outdoors). Midline crossing.			
Week 9				
CONTENT AREA: MEASUREMENT				
TOPIC: Length – compare and order objects using appropriate vocabulary to describe length				
INTRODUCE NEW KNOWLEDGE: Measuring and comparing length (long/short, longer/shorter, longest/shortest)				
PRACTISE: Oral counting 1-20, counting backwards from 7, counting objects 1-7, estimation 1-7, tall/short				
Whole class activities		Teacher-guided activity	Workstation activities	
Day 1	Longer/shorter (height).	Longer than/shorter than.	Activity 1	Shorter/longer (pre-cut strips of different length).
Day 2	Comparing lengths of ribbons.	Taller than/shorter than.	Activity 2	Wiggly worms (to make a poster shortest to longest).
Day 3	Sorting objects by length (coloured paper strips).	Measurement with everyday objects.	Activity 3	Measure blocks using string.
Day 4	Height chart comparison (from Term 1).		Activity 4	Playdough and lined paper (different lengths).
Day 5	Height chart comparison (taller/shorter than you).			

ISINGENISO A: IKOTA 2 ISISHWANKATHELO SOMXHOLO WEVEKI NEVEKI (IIVEKI 8-10)

Ikota 2: Isicwangciso semiSebenzi

Iveki 8			
INKALO YOMXHOLO: ISITHUBA NEMILO (IJIYOMETRI) ISIHLOKO: Iimpawu zeemilo - thelekisa ezifanayo nezahlukileyo, hlela ngokweempawu; indawo; indawo-bume neembonakalo YAZISA ULWAZI OLUTSHA: Landela isalathiso nokunqumla embindini ZIQHELISE: Ukubala ngomlomo 1–20, ukubala ubuyela umva ukusuka ku7, ukulandelelanisa amanani 1–5, ukubala izinto 1–7, ukubethelila ingqikelelomanani 1–5, leliphi inani eliphambi ko-/elisemva ko-, ukuziqhelanisa kusetyenziswa zonke iimilo			
Imisebenzi yeklasi yonke	Umsebenzi okhokelwa ngutitshala	Imisebenzi yesitishi sokusebenzela	
Usuku 1 Ekuya phambili/ukubuyela umva.	Ukubala – ndibonise izixhobo zokubala 1–3, 5–7.	Umsebenzi 1	Umsebenzi wokuhlela – kusetyenziswa iimilo ezisikiwego.
Usuku 2 Ukubethelila zonke iimilo (Ndibonisele ...).	Ukusebenza ngazo zonke iimilo ezifundisiwego. Ukunqumla embindini, Indawo – isalathiso.	Umsebenzi 2	Ukwenza iimilo kusetyenziswa intlama yokudlala nokwenza ikopi.
Usuku 3 Umdlalo weemilo.	Ukuya phambili/ukubuyela umva.	Umsebenzi 3	Iimilo ezenziwe ngeteyiphu encamatheleyo – abafundi balandela iimilo besebenzisa iibhloko.
Usuku 4 Ndiza kuthini: llahlekile ... (iimilo) yam.		Umsebenzi 4	Tshatisa iimilo usebenzisa amakhadi eemilo.
Usuku 5 Umzila wemiqobo (kufuneka indawo enkulu/phandle). Ukunqumla embindini.			
Iveki 9			
INKALO YOMXHOLO: UMLINGANISELO ISIHLOKO: Ubude – thelekisa izinti uzilandelelanise usebenzisa isigama esifanelekileyo ukuchaza ubude YAZISA ULWAZI OLUTSHA: Ukwenza umlinganiselo nokuthelekisa ubude (de/futshane, ndana kune/futshane kune, de kakhulu/futshane kakhulu) ZIQHELISE: Ukubala ngomlomo 1–20, ukubala ubuyela umva ukusuka ku 7, ukubala izinto 1–7, uthelekelelo 1–7, de/futshane			
Imisebenzi yeklasi yonke	Umsebenzi okhokelwa ngutitshala	Imisebenzi yesitishi sokusebenzela	
Usuku 1 Nde kuno-/futshane kuno- (umphakamo).	Nde kune-/mfutshane kune-. Nde kune-/mfutshane kune-. Umlinganiselo wezinto zemihla ngemihla.	Umsebenzi 1	Futshane kune-/nde kune- (imicu eseles isikiwe enobude obungalinganiyo).
Usuku 2 Ukuhelekisa ubude beeribhoni.		Umsebenzi 2	Imibungu egosogoso (ukwenza ipowusta ibe yeyona imfutshane iye isiba yeyona inde).
Usuku 3 Ukuhlela izinto ngokobude (imicu eyimibalabala yamaphepha).		Umsebenzi 3	Ukwenza umlinganiselo weebhloko usebenzisa umsonto.
Usuku 4 Utthelekiso lwetshathi yomphakamo (ekwiKota 1).		Umsebenzi 4	Intlama yokudlala nephepha elinomga (ubude obungalinganiyo).
Usuku 5 Utthelekiso lwetshati yomphakamo (de kuno-/futshane kunawe).			

Week 10				
CONTENT AREA: NUMBERS, OPERATIONS AND RELATIONSHIPS				
TOPIC: Describe, compare and order numbers; addition and subtraction (oral); problem solving INTRODUCE NEW KNOWLEDGE: Breaking down and building up numbers, problem-solving techniques, addition and subtraction using concrete objects, numbers in familiar settings (address and phone number) PRACTISE: Oral counting 1-20, counting backwards from 7, sequencing numbers 1-5, counting objects 1-7, reinforce number concept 1-5, what number comes before/after				
Imisebenzi yeklasi yonke		Umsebenzi okhokelwa ngutitshala	Imisebenzi yesitishi sokusebenzela	
Day 1	Ordering, using numbers 1-5. Dot cards.	Ordering numbers and dot cards (1-5). Fewer/more/less than.	Activity 1	Write numbers 1-5 and draw dots using white board markers and plastic sheets. Count sticks to match.
Day 2	Addition using concrete objects. Musical chairs.	Decomposition of numbers. Phone numbers and addresses.	Activity 2	Tracing shapes according to given number. Feely cups with number of objects – feel amount and show number symbol.
Day 3	Subtraction using concrete objects.		Activity 3	Number matching pictures.
Day 4	Problem solving. Poster 1.		Activity 4	
Day 5	Memory game: Address and phone number. Game: Making groups of 1-5 learners.			

Iveki 10

INKALO YOMXHOLO: AMANANI, IIOPAREYSHINI NOLALWAMANO

ISIHLOKO: Chaza, thelekisa ulandeletanise amanani; ukudibanisa nokuthabatha (ngomlomo); ukusombulula iingxaki

YAZISA ULWAZI OLUTSHA: Ukucazulula nokwakha amanani, iindlela zokusombulula iingxaki, ukudibanisa nokuthabatha kusetyenziswa izinto eziphathekayo, amanani kwiindawo eziqhelekileyo (idilesi nenombolo yefowuni)

ZIQHELISE: Ukubala ngomlomo 1–20, ukubala ubuyela umva ukusuka ku7, ukulandeletanisa amanani 1–5, ukubala izinto 1–7, bethelela ingqikelelomanani 1–5, leliphi inani eliphambi ko-/elisemva ko-

Imisebenzi yeklasi yonke	Umsebenzi okhokelwa ngutitshala	Imisebenzi yesitishi sokusebenzela
Usuku 1	Ukulandeletanisa, ukusebenzisa amanani 1–5. Amakhadi anamachokoza.	Umsebenzi 1 Ulandeletaniso lwamanani namakhadi anamachokoza (1–5). Mbalwa/ngaphezulu/ngaphantsi kune-. Ukucazulula amanani. Inombolo zefowuni needlesi.
Usuku 2	Ukudibanisa usebenzisa izinto eziphathekayo. Izitulo zomculo.	Umsebenzi 2
Usuku 3	Ukuthabatha usebenzisa izinto eziphathekayo.	Umsebenzi 3
Usuku 4	Ukusombulula iingxaki. Ipowusta 1.	Umsebenzi 4
Usuku 5	Umdlalo wokukhumbula: Idilesi nenombolo yefowuni. Umdlalo: Ukwenza amaqela abafundi 1–5.	Bhala amanani 1–5 uzobe amachokoza usebenzisa iimakha zokubhala ebhodini emhlophe namaxwebhu amakhulu eplastiki. Bala izinto zokutshatisa. Ukutreyisa iimilo ngokwenani elinikiweyo. Ilikomityi zokumpampatha ezigcwaliswe ngamanani ezinto – ukumpampatha isixa uze ubonise isimboli yenani. Amanani atshatiswa nemifanekiso.

Workshop 6 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?

Ifomu yokuHlola yeNdibano yoCweyo 6

1. Ingaba indibano yocweyo ifikelele koko ubukulindele?

2. Ufunde ntoni kule ndibano yocweyo ekuncede kakhulu?

3. Ingaba ikhona into ongakhange uyithande okanye obenobunzima bokuyiqonda?

4. Uza kukusebenzisa njani oko ukufundileyo apha kwiklasi yakho yeBanga R?

5. Ingaba unazo iingcebiso zokuphucula nangakumbi iindibano zocweyo?
