INkqubo yeMathematika yokuPhucula yeBanga R
Grade R Mathematics Improvement Programme
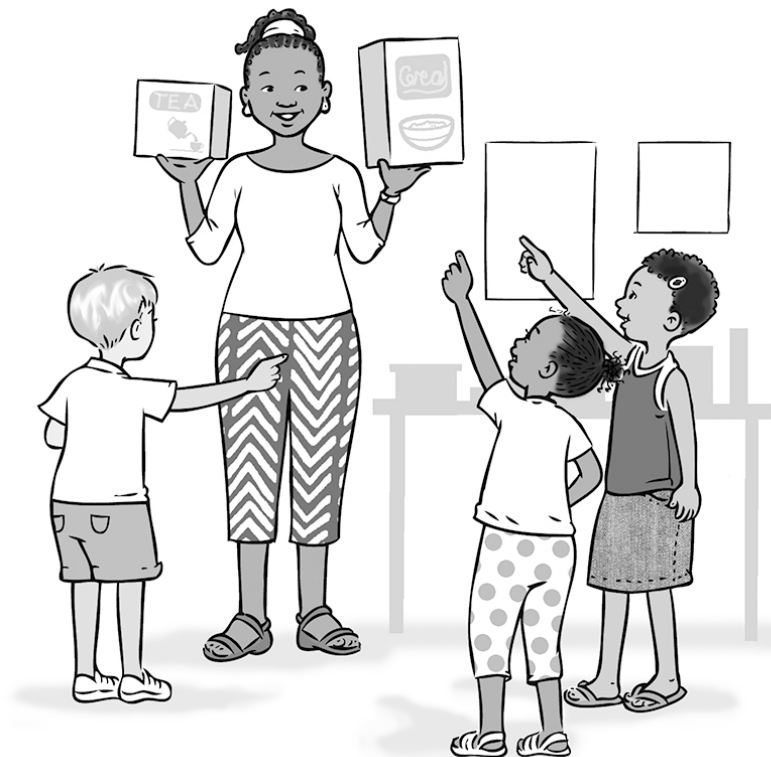
INdibano yoCweyo 5 ● Workshop 5

Incwadi yokuSebenzela yoMthathinxheba ● Participant's Workbook

ACKNOWLEDGEMENTS

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

Ukwenziwa nokuveliswa kwezixhobo zoqeqesho nezegumbi lokufundela kwenziwe kwayimpumelelo ngezibele zenkxasomali 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.

I**Schools 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 kuphuhliso lobungcali bootitshala kwiMathematika, izifundo zeNzululwazi, iLitherasi/uLwimi kunye neZakhono zoBomi ukusuka kwiBanga R ukuya kwiBanga le-12. ISDU inikezela ngeziqinisekiso zootitshala kunye nezifundo 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 yokuphunyezwa kweGrade R Mathematics Programme (R-Maths) eNtshona Koloni phakathi kweminyaka ka2016 no2019.
- Iqela lababhali beR-Maths: Abasebenzi kwiSDU.

Contents

Isiqulatho

Amagqabantshintshi

Umxholo wendibano yocweyo

Overview

Purpose

This is the fifth 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 continue to implement the Maths Programme in their classrooms, to strengthen their understanding of teaching and learning in the Content Areas covered in Term 2 Weeks 4–7 and to reflect on how they are putting the guiding principles of teaching maths into practice in their classrooms.

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 Week 10 and Term 2 Weeks 1–3
♦ To explore strategies to support teaching maths in Grade R
♦ To reflect on the Maths Programme's guiding principles of teaching
♦ To engage with the Maths Programme content for Term 2 Weeks 4–7 (Space and Shape (Geometry); Numbers, Operations and Relationships; Patterns, Functions and Algebra; and Data Handling)
♦ To discuss appropriate observation and assessment in Grade R

Workshop content

♦ Opening and reflection   (1 hour)
♦ Session 1: Space and Shape (Geometry)   (1 hour)
TEA
♦ Session 2: Numbers, Operations and Relationships   (1 hour)
♦ Session 3: Patterns, Functions and Algebra   (1 hour)
LUNCH
♦ Session 4: Data Handling   (1 hour)
♦ Closing activities   (1 hour)

Amagqabantshintshi

Injongo

Le yeyesihlanu kwezilishumi elinambini iindibano zocweyo zeNkqubo yeMathematika yokuPhucula yeBanga R (iNkqubo yeMathematika) neyinxalenye yeProjekthi yeBanga R yokuPhucula yeMathematika noLwimi yeSebe leMfundo laseGauteng (Gauteng Department of Education (GDE)).

Injongo yale ndibano yocweyo kukuncedisa ootitshala ukuba baphumeze iNkqubo yeMathematika eziklasini zabo, ukomeleza indlela abaqonda ngayo ekufundiseni nasekufundeni iiNkalo zoMxholo esele zifundisiwe kwiKota 2 Iiveki 4–7 nobuyelomva ngeengcinga kwindlela esebenze ngayo imigaqo ekhokela ukufundisa imathematika ibe yesebenzayo eziklasini zabo.

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

Iziphumo zokufunda

♦ Ukucamngca ngokuphunyezwa kweKota 1 iVeki 10 kunye neKota 2 iiVeki 1–3
♦ Ukuqwalasela amacebo okunika inkxaso ekufundisweni kwemathematika kwiBanga R
♦ Ukucamngca kwimigaqo ekhokela ukufundisa iNkqubo yeMathematika.
♦ Ukusebenza ngeNkqubo yeMathematika kwiKota 2 iiVeki 4–7 (IsiThuba neMilo (iJiyometri); Amanani, iiOpareyshini noLwalamano; IiPateni, iiFanshini neAljibhra; ULwazi oluQokelelweyo).
♦ Ukuxoxa ngendlela efanelekileyo yoqwalaselo nohlolo kwiBanga R

Umxholo wendibano yocweyo

♦ Ukuvula nocamngco	(1 iyure)
♦ Iseshoni 1: IsiThuba neMilo (iJiyometri)	(1 iyure)
ITI	
♦ Iseshoni 2: Amanani, iiOpareyshini noLwalamano	(1 iyure)
♦ Iseshoni 3: IiPateni, iiFanshini neAljibhra	(1 iyure)
ISIDLO SASEMINI	
♦ Iseshoni 4: ULwazi oluQokelelweyo	(1 iyure)
♦ Imisebenzi yokuqukumbela	(1 iyure)

Opening and reflection

1 hour

The **inclusivity principle:** All learners should feel welcome, included and happy to participate. Remember to treat all learners fairly and with respect.

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

Activity 1

Discuss your progress in implementing the *Take back to school* task from Workshop 4.

1. What progress in maths did you observe in your learners after implementing Term 1?

    _____
    _____
    _____

2. How did the information in the 'Check that learners are able to' in *Activity Guide: Term 1* assist you in assessing each learner's progress in Term 1?

    _____
    _____
    _____

3. Did you successfully record each learner's progress using 'Term 1: Exemplar Record of Continuous Assessments' on pages 190–193 of *Activity Guide: Term 1*?

    _____
    _____
    _____

Ukuvula nocamngco

Umgaqo woquko: Bonke abafundi kufuneka bazive bamkelekile, bequkiwe kwaye bakonwabele ukuthabatha inxaxheba. Khumbula ukuphatha bonke abafundi ngendlela efanelekileyo nangentlonelo.

Khawubuyele umva ngeengcinga kwindlela ophumeze ngayo iNkqubo yeMathematika kwinkqubo yakho yemihla ngemihla ngokwenza lo msebenzi ulandelayo.

Umsebenzi 1

Xoxani ngenkqubela ekuphumezeni uMsebenzi *ekubuyelwa nawo esikolweni* weNdibano yoCweyo 4.

1. Yeyiphi inkqubela kwimathematika othe wayiqaphela kubafundi bakho emva kokuba kuphunyezwe iKota 1?

   _____
   _____
   _____

2. Ingaba lukuncede njani ulwazi luka 'Qwalasela ukuba abafundi bayakwazi uku-' kw*isiKhokelo semiSebenzi: Ikota 1* ekuhloleni inkqubela yabafundi kwiKota 1?

   _____
   _____
   _____

3. Ingaba uyirekhode ngempumelelo inkqubela yomfundi ngamnye usebenzisa 'Ikota 1: Umzekelo weRekhodi yoHlolo oluQhubekayo' ekumaphepha 190–193 kw*isiKhokelo semiSebenzi: Ikota 1*?

   _____
   _____
   _____

Video 1

Watch the video of the teacher discussing observation and assessment in her Grade R classroom.

What do you think the intention of the activity is? Pay special attention to how the teacher prompts the learners with questions and how she observes each learner.

_____
_____
_____

Activity 2

In your small groups, discuss:
1. How you are managing assessment in your classroom.
2. How you use rubrics in your assessment process.
3. How you incorporate the School Based Assessments (SBA) and SA-SAMS online system as part of your assessment process.

Write down the main points of your discussion to share with the whole group. Consider what works well and where you have challenges with assessment.

_____
_____
_____
_____

The **level principle:** Some learners may need more practice and support than other learners. Be sure to allow learners enough time and support to complete activities, to think and to answer questions.

📹 Ividiyo 1

Bukela ividiyo katitshala exoxa ngendlela yokuqaphela nohlolo eklasini yakhe yeBanga R.

Ucinga ukuba zithini iinjongo zalo msebenzi? Qaphela indlela abakhokela ngayo utitshala abafundi ngemibuzo nendlela amqwalasela ngayo umfundi ngamnye.

_____
_____
_____

👥 Umsebenzi 2

Kumaqela enu amancinci, xoxani:
1. Umelana njani nohlolo eklasini yakho.
2. Uzisebenza njani iirubhriki kwiinkqubo zakho zohlolo.
3. Uyifaka njani i*School Based Assessments* (SBA) neSA-SAMS *online system* njengenxalenye yenkqubo yakho yohlolo.

Bhala phantsi amanqaku aphambili engxoxo yakho onokwabelana ngayo neqela lonke. Khangela ukuba yeyiphi na into esebenze kakuhle nokuba ibe ndawoni na imingeni kuhlolo.

_____
_____
_____
_____

Umgaqo woquko: Abanye abafundi basenokufuna ithuba elongezelelweyo lokuziqhelisa kwanenkxaso kunabanye abafundi. Qiniseka ukuba ubanika ithuba elaneleyo nenkxaso xa besenza imisebenzi yabo, ukucinga nokuphendula imibuzo.

Session 1: Space and Shape (Geometry)   **1 hour**

Term 2 Content overview: Space and Shape (Geometry)

This session focuses on teaching the content of Term 2 Week 4 – Space and Shape (Geometry). Remember that Space and Shape (Geometry) was also the focus of Week 3 which we covered in Workshop 4.

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

Activity 3

What Space and Shape concepts are presented in 3.1 and 3.2 of the content overview?
_____
_____
_____

In Grade R learners describe, sort and compare 3-D objects and focus on the similarities and differences between them. In Term 2 Week 4 learners sort, compare and describe 3-D objects according to size, colour and shape. They also look at and describe objects in relation to themselves and each other and from different positions (orientation and views). Another focus in Week 4 is on following directions and using vocabulary associated with position.

Activity 4

1. Discuss how you could use objects in your classroom to encourage learners to talk about their position in relation to the objects they are looking at.

_____
_____
_____
_____
_____

Iseshoni 1: IsiThuba neMilo (iJiyometri)   **1 iyure**

Amagqabantshintshi ngomxholo weKota 2: IsiThuba neMilo (iJiyometri)

Le seshoni igxile ekufundiseni umxholo weKota 2 iVeki 4 – isiThuba neMilo (iJiyometri). Khumbula ukuba isiThuba neMilo (iJiyometri) bekukwagxilwe kuso kwiVeki 3 esele yenziwe kwiNdibano yoCweyo 4.

Fundani isishwankathelo somxholo wesiThuba neMilo (iJiyometri) kumaphepha 126–131 e*siKhokelo seeKhonsepthi* nenze noMsebenzi 3.

Umsebenzi 3

Zeziphi iikhonsepthi zesiThuba neMilo ezichaziweyo ku3.1 naku3.2 wesishwankathelo somxholo?

_____

_____

_____

KwiBanga R abafundi bachaza, bahlele yaye bathelekise izinto ezingu 3-D bagxile kwizinto ezifanayo nezahlukileyo ngazo. KwiKota 2 iVeki 4 abafundi bahlela, bathelekise baze bachaze izinto ezingu 3-D ngokobungakanani, umbala nemilo. Bakwajonga baze bachaze izinto ngendlela ezibonakala ngayo kubo nakwabanye ngokweendawo abakuzo ezahlukeneyo (ulungelelwaniso neembonakalo). Enye into ekugxilwe kuyo kwiVeki 4 isekulandeleni izalathiso kwanokusetyenziswa kwesigama esinxulumene nendawo.

Umsebenzi 4

1. Xoxani ngendlela enizibona ngayo izinto eziseklasini ukukhuthaza abafundi ukuba bathethe ngeendawo abakuzo ngokuphathelelene nezinto abazijongileyo.

_____

_____

_____

_____

_____

2. Look at the pictures. Describe where you would stand in order to see each of the views of the truck.

_____
_____
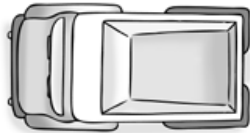
Term 2 Week 4
Refer to the teacher-guided activity on pages 80–83 of *Activity Guide: Term 2*.

Activity 5
1. Which Space and Shape concepts are presented?
_____
_____
_____
_____
_____

2. Give examples of guiding questions that are asked in the teacher-guided activities. Will these questions encourage learners to talk about the concepts in question 1?
_____
_____
_____

2. Jongani emifanekisweni. Chaza apho unokuma khona ukuze ubone imbonakalo nganye yetrakhi.

_____
_____
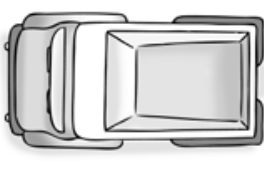
Ikota 2 Iveki 4

Jonga kumsebenzi okhokelwa ngutitshala kumaphepha 80–83 e*siKhokelo semiSebenzi: Ikota 2*.

 Umsebenzi 5

1. Zeziphi iikhonsepthi zesiThuba neMilo eziveziweyo?
_____
_____
_____
_____
_____

2. Nika imizekelo yemibuzo ekhokelayo ebuziweyo kwimisebenzi ekhokelwa ngutitshala. Ingaba le mibuzo iya kubakhuthaza abafundi ukuba bathethe ngeekhonsepthi ezikumbuzo 1?
_____
_____
_____

Learners need many opportunities to play with and sort collections of 3-D objects. Teachers need to understand the underlying concepts in Space and Shape (Geometry) and communicate these using the correct maths language.

The following points should be remembered.

♦ An object is three-dimensional (3-D). You can look at it from the top, the bottom and the sides. 3-D objects have length, breadth (width) and height.

♦ A shape is two-dimensional (2-D). Shapes include circles, triangles, squares and rectangles. They have length and breadth (width).

♦ As learners explore the properties of 3-D objects they will identify objects that 'look like' 2-D shapes, e.g. the door looks like a rectangle, the road sign looks like a triangle, the plate looks like a circle. They will start to understand that the surfaces of 3-D objects look like 2-D shapes.

The **interaction principle:** Learning involves communication and the sharing of ideas. Responding in an appropriate way to something is a very important part of communication and of teaching and learning. Always listen to learners when they share their ideas or respond to your questions.

Term 2 Content Summary (Week 4)

 Activity 6

Refer to Appendix A: Term 2 Weekly Content Summary (Weeks 4–7). Read the content overview for Week 4: Space and Shape (Geometry) on page 10 of *Activity Guide: Term 2*.

1. What are the topics for Week 4?
_____
_____

2. What new knowledge is introduced in this week?
_____
_____
_____

3. What skills from previous weeks are practised?
_____
_____
_____

Abafundi kufuneka babenamathuba amaninzi okudlala ngazo baze bahlele zonke izinto oziqokeleleyo ezingu 3-D. Ootitshala kufuneka baziqonde iikhonsepthi ezingundoqo zesiThuba neMilo (iJiyometri) nokuthetha ngezi zinto ngokolwimi oluchanekileyo lwemathematika.

Mawakhunjulwe la manqaku alandelayo.

♦ Into ineenkangeleko ezintathu (3-D). Unokuyibona uyivele ngasentla, ngasezantsi nasemacaleni. Izinto ezineenkangeleko ezintathu (3-D) zinobude, ububanzi nomphakamo.

♦ Imilo ineenkangeleko ezimbini (2-D). Iimilo ziquka izangqa, oonxantathu, izikwere neengxande. Zinobude nobubanzi.

♦ Ngeli xesha abafundi bephononga iimpawu zezinto ezingu3-D bayakwazi ukuchonga izinto 'ezifana' neemilo ezingu2-D, umz. ucango lujongeka njengoxande, uphawu lwendlela lujongeka njengonxantathu, ipleyiti ijongeka njengesangqa. Baya kuqala ngokuqonda ukuba imiphezulu yezinto ezingu3-D ibonakala njengeemilo ezingu2-D.

Umgaqo wentsebenziswano: Ukufunda kubandakanya ukuthetha nokwabelana ngezimvo. Ukuphendula ngendlela efanelekileyo kuyinto ebaluleke kakhulu kunxibelelwano nasekufundiseni nokufunda. Soloko ubamamela abafundi xa benika izimvo zabo okanye xa bephendula imibuzo yakho.

Isishwankathelo soMxholo weKota 2 (Iveki 4)

Umsebenzi 6

Jonga kwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki (iiVeki 4–7). Funda amagqabantshintshi omxholo weVeki 4: isiThuba neMilo (iJiyometri) kwiphepha 10 le*siKhokelo semiSebenzi: Ikota 2*.

1. Zeziphi izihloko zeVeki 4?

_____
_____

2. Loluphi ulwazi olutsha olwaziswayo kule veki?

_____
_____
_____

3. Zeziphi izakhono ezisukela kwiiveki ezidlulileyo eziqheliswayo?

_____
_____
_____

Session 2: Numbers, Operations and Relationships

1 hour

The focus of Term 2 Week 5 is Numbers, Operations and Relationships.

Term 2 Content overview: Numbers, Operations and Relationships

Previous workshops have presented the Content Area Focus: Numbers, Operations and Relationships. In this session we look at the Term 1–4 content overview (*Concept Guide*, pages 114–123) again.

Activity 7

What new numbers are introduced in Term 2?

_____

Term 2 Week 5: Teaching number

The number 'five' is introduced in Term 2 Week 5. The Maths Programme encourages the use of numbers in different situations and the use of multiple representations, e.g. a symbol, a word, a picture, dot cards, counters, claps. The routine used for introducing each number engages learners in a routine that is familiar, predictable, fun and presents the number in different ways.

Activity 8

Refer to the Week 5 whole class activities in *Activity Guide: Term 2* (pages 90–99). Describe the routine that is used to teacher the number '5'.

Day 1

_____
_____
_____
_____

Day 2

_____
_____
_____
_____

Iseshoni 2: Amanani, iiOpareyshini noLwalamano

1 iyure

Ekuza kugxilwa kuko kwiKota 2 iVeki 5 ngaManani, iiOpareyshini noLwalamano.

Amagqabantshintshi ngomxholo weKota 2: Amanani, iiOpareyshini noLwalamano

Kwiindibano zocweyo ezidlulileyo kwandlalwe iNkalo yomXholo ekuGxininiswa kuyo: Amanani, iiOpareyshini noLwalamano. Kule seshoni sijonga kumagqabantshintshi ngomxholo eKota1–4 (*isiKhokelo seeKhonsepthi*, amaphepha 114–123) kwakhona.

 Umsebenzi 7

Ngawaphi amanani athe aziswa kwiKota 2?

_____

Ikota 2 iVeki 5: Inani lokufundisa

Inani 'untlanu' linani eliye laziswa kwiKota 2 iVeki 5. Inkqubo yeMathematika ikhuthaza ukusetyenziswa kweemeko ezahlukeneyo nokusetyenziswa komelo oluphindwaphindwayo, umz. isimboli, igama, umfanekiso, amakhadi anamachokoza, izixhobo zokubala, ukuqhwaba. Inkqubo esetyenzisiweyo ukwazisa inani ngalinye asebenza ngalo umfundi ngokwenkqubo yesiqhelo iqhelekile, iyaqikeleleka, iyonwabisa ize ilibonise inani ngeendlela ezahlukeneyo.

 Umsebenzi 8

Jonga kwiVeki 5 imisebenzi yeklasi yonke kw*isiKhokelo semiSebenzi: Ikota 2* (amaphepha 90–99). Chaza indlela esetyenzisiweyo ukufundisa inani u'5'.

Usuku 1

_____
_____
_____
_____

Usuku 2

_____
_____
_____
_____

Day 3

_____
_____
_____
_____

Day 4

_____
_____
_____
_____

Day 5

_____
_____
_____
_____

The number washing line

The numbers 1 to 5 were pegged onto the number washing line in the maths area as they were introduced in Term 1. It is only in Week 5 that learners actively engage with the number washing line. Many teachers put up number lines from 0 to 10 or even to 20 in the classroom before learners are able to count or recognise these numbers.

Initially the Maths Programme's focus on the number washing line is incidental. From Week 5 it is used to focus on sequencing (ordering) numbers and talking about the relationship between numbers.

Use the number washing line to:
♦ order and compare numbers e.g.:
  - What number comes before 3?
  - What number is between 3 and 5?
  - What number comes after 4?
♦ explore how numbers increase from left to right, and decrease from right to left.
♦ use maths language such as *before*, *after*, *between*.

In the video the facilitator demonstrates a washing line activity that supports the teaching of number.

Read the activity that introduces the washing line to learners on page 94 of *Activity Guide: Term 2*.

Usuku 3

_____

_____

_____

_____

Usuku 4

_____

_____

_____

_____

Usuku 5

_____

_____

_____

_____

Ucingo lokoneka amanani

Amanani u1 ukuya ku5 ebexhonywe kucingo lokoneka amanani kwindawo yemathematika ngexesha ebesaziswa kwiKota 1. AsiyoVeki 5 yodwa apho abafundi bebebandakanyiwe besebenza kucingo lokoneka amanani. Ootitshala benza umgcamanani osuka ku0 ukuya kwi10 okanye noya kutsho kuma20 eklasini ngaphambi kokuba abafundi bakwazi ukubala okanye ukuwaqaphela la manani.

Ekuqaleni into ekwakugxilwe kuyo ngocingo lokoneka amanani kwiNkqubo yeMathematika kwenzeka ngebhaqo. Ukusuka kwiVeki 5 kusetyenziswe ukugxila kulandelelaniso (udweliso) lwamanani nokuthethetha ngonxulumano oluphakathi kwamanani.

Sebenzisa ucingo lokoneka amanani uku-:
♦ landelelanisa nokuthelekisa amanani umz.:
- Leliphi inani eliphambi kuka3?
- Leliphi inani eliphakathi kuka3 no5?
- Leliphi inani elilandela emva kuka4?
♦ khangela indlela alandelelana ngayo ukunyuka amanani ukusuka ekhohlo ukuya ekunene.
♦ sebenzisa isigama semathematika esifana no*ngaphambi, emva, phakathi*.

Kwividiyo umbhexeshi ubonisa ngomsebenzi wocingo lokoneka amanani oxhasa inani elifundiswayo.

Funda umsebenzi wokwazisa abafundi ngocingo lokoneka amanani kwiphepha 95 kw*isiKhokelo semiSebenzi: Ikota 2*.

Video 2

Watch the video of the teacher using the number washing line to order the numbers 1 to 5. Notice how she scaffolds the activity and note the questions that she asks to prompt the learners.

Discuss the value of using a number washing line in Grade R.

_____
_____
_____
_____

Sequencing numbers: Learners place the numbers in the correct counting order. Learners see the number line each day and during incidental discussions talk about each number.
Order: Learners discuss the numbers in relation to each other. The teachers asks which number comes before, after or between other numbers. Learners use correct maths language to describe the position of the numbers in relation to each other.

Structure beads

The structure beads in your *Resource Kit* come in lengths of 10 beads grouped in fives, according to colour (five red beads and five yellow beads).

Structure beads help learners to:
♦ automatically recognise the number of beads in a group without counting, e.g. '4'.
♦ understand that one number may be a combination of two or more other numbers, e.g. '4' is made up of 2 and 2 or 1 and 3.
♦ develop skills in counting on from a given number, e.g. start at 3 and count on to 5.
♦ begin to work with addition and subtraction.
♦ begin to work with bonds of ten.

In this next activity, use your 10 structure beads to explore different number combinations. Follow your facilitator's lead and respond to the questions as set out in Activity 9.

📹Ividiyo 2

Bukela ividiyo katitshala esebenzisa ucingo lokoneka amanani ukusuka ku1 ukuya ku5. Qaphela indlela awuxhasa ngayo umsebenzi uqwalasele nemibuzo ayibuzayo ukukhuthaza abafundi.

Xoxani ngokubaluleka kokusetyenziswa kocingo lokoneka amanani kwiBanga R.

_____

_____

_____

_____

Ukulandelelanisa amanani: Abafundi babeka amanani ngendlela echanekileyo yokubala. Abafundi babona umgcamanani yonke imihla nangexesha leengxoxo zebhaqo xa bencokola nabanye.

Ulandelelwaniso: Abafundi baxoxa ngamanani ngokubhekiselele kwamanye. Ootitshala babuza ukuba leliphi inanai eliphambi, elisemva okanye eliphakathi kwamanye amanani. Abafundi basebenzisa ulwimi lwemathematika oluchanekileyo ukuchaza indawo akuyo amanani ngokubhekiselele kwamanye.

Amaso okuhlela

Amaso okuhlela kw*iKiti yeziXhobo* yakho aba nobude bamaso ali10 abekwe ngokwamaqela amahlanu, ngokwemibala yawo (amaso abomvu amahlanu namaso amthubi amahlanu).

Amaso okuhlela anceda abafundi ukuba:
♦ baliqaphele ngokulula inani lamaso abekwe ngokwamaqela ngaphandle kokuwabala, umz. '4'.
♦ baqonde ukuba inani elinye lisenokuba lidityaniswe namanye amanani amabini okanye ngaphezulu, umz. u'4' wenziwe ngu2 no2 okanye ngu1 no3.
♦ kuphuhle izakhono ekubaleni ukusuka kwinani elinikiweyo, umz. ukuqala ku3 nokubala aye kufika ku5.
♦ baqalise ukusebenza ngokudibanisa nangokuthabatha.
♦ baqalise ukusebenza ngendibanisela yeshumi.

Kulo msebenzi ulandelayo, sebenzisa amaso okuhlela ali10 ukukhangela iindibanisela ezahlukeneyo zamanani. Landela isikhokelo sombhexeshi wakho uze uphendule imibuzo njengoko ibekiwe kuMsebenzi 9.

Activity 9

1. Show me two beads.
2. Show me one more bead.
3. Show me one fewer than four beads.
4. Show me four beads. Now show me one more than four. How many do you have?
5. What did you do to make it one more?
6. Show me one fewer than five. How many do you have?
7. What did you do to make it one less?
8. Now take one away. How many do you have?
9. Add one. How many do you have?

Read the activity that introduces the structure beads to learners on page 100 of *Activity Guide: Term 2*, step 3. In groups, discuss this activity.

Activity 10

How does this structure bead activity help to develop the learners' number sense?
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

The **practice principle:** Learners should have plenty of time to practise new skills and knowledge. When learners get regular practice in what they have already learnt, they get better at it and become more confident. They enjoy repetition and practice.

Umsebenzi 9

1. Ndibonise amanye amaso amabini.
2. Ndibonise elinye iliso elinye.
3. Ndibonise amaso ambalwa ngeliso elinye kumaso amane.
4. Ndibonise amaso amane. Ngoku ndibonise amaso amaninzi ngeliso elinye ngaphezu kwamaso amane. Mangaphi onawo ngoku?
5. Wenze ntoni ukuwenza ongezeke ngelinye?
6. Ndibonise ambalwa ngeliso elinye kunamaso amahlanu. Mangaphi onawo ngoku?
7. Wenze ntoni ukuwenza abe ngaphantsi ngeliso elinye?
8. Ngoku khawususe libe linye. Mangaphi onawo ngoku?
9. Dibanisa elinye. Mangaphi ngoku?

Funda umsebenzi wokwazisa amaso okuhlela kubafundi okwiphepha 101 le*siKhokelo semiSebenzi: Ikota 2*, inyathelo 3. Ningamaqela, xoxani ngalo msebenzi.

Umsebenzi 10

Ingaba ukunceda njani umsebenzi wamaso okuhlela ukuphuhlisa ingqiqo yabafundi bakho ngamanani?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Umgaqo wokuziqhelisa: Abafundi kufuneka babe nexesha elaneleyo lokuziqhelisa izakhono ezitsha nolwazi. Xa abafundi beziqhelisa rhoqo into abayifundileyo, baya kuqhuba kakuhle kuyo kwaye babe nokuqiniseka. Bonwabela ukuphindaphinda nokuziqhelisa.

Term 2 Content Summary (Week 5)

Activity 11

Refer to Appendix A: Term 2 Weekly Content Summary (Weeks 4–7). Read the content overview for Week 5: Numbers, Operations and Relationships on page 18 of *Activity Guide: Term 2*.

1. What are the topics for Week 5?
    _____
    _____

2. What new knowledge is introduced in this week?
    _____
    _____
    _____

3. What skills from previous weeks are practised?
    _____
    _____
    _____

4. Match the activities in Appendix A: Term 2 Weekly Content Summary (Weeks 4–7) with the lessons in each week.

Isishwankathelo soMxholo weKota 2 (Iveki 5)

Umsebenzi 11

Jonga kwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki (iiVeki 4–7). Funda amagqabantshintshi eVeki 5: Amanani, iiOpareyshini noLwalamano kwiphepha 19 *isiKhokelo semiSebenzi: Ikota 2*.

1. Zeziphi izihloko zeVeki 5?
    _____
    _____

2. Loluphi ulwazi olutsha olwaziswa kule veki?
    _____
    _____
    _____

3. Zeziphi izakhono ezisukela kwiiveki ezidlulileyo eziqheliswayo?
    _____
    _____
    _____

4. Tshatisa imisebenzi ekwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki (Iiveki 4–7) kunye nezifundo kwiveki nganye.

Session 3: Patterns, Functions and Algebra   1 hour

The focus of Term 2 Week 6 is Patterns, Functions and Algebra.

Term 2 Content overview: Patterns, Functions and Algebra

Refer to Patterns, Functions and Algebra in the content overview (*Concept Guide*, page 124).

Activity 12

1. What concepts are covered in Term 2?
_____
_____
_____

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

Term 2 Week 6: Describe, copy and extend patterns

In Workshop 3, the focus of Patterns, Functions and Algebra was on recognising/identifying the repeat in a pattern. We also discussed the difference between a sequence and a pattern. Term 2 Week 6 builds on the content introduced in Term 1 Week 6.

In Term 2 Week 6 learners:
♦ describe the repeat in patterns using objects, pictures and sounds.
♦ copy patterns that others have made with objects, pictures and sounds.
♦ extend patterns that others have made.
♦ create their own patterns at various levels of difficulty such as:
    - circle, square; circle, square
    - circle, square, triangle; circle, square, triangle
    - circle, circle, square; circle, circle, square
    - red circle, blue circle, yellow square; red circle, blue circle, yellow square.
♦ tell what is missing when part of a pattern is hidden.

Iseshoni 3: IiPateni, iiFanshini neAljibhra   1 iyure

Ekugxilwe kuko kwiKota 2 iVeki 6 ziiPateni, iiFanshini neAljibhra.

Amagqabantshintshi ngomxholo weKota 2: IiPateni, iiFanshini neAljibhra

Bhekisa kwiiPateni, iiFanshini neAljibhra kumagqabantshintshi ngomxholo (*isiKhokelo seeKhonsepthi*, iphepha 125).

Umsebenzi 12

1. Zeziphi iikhonsepthi ezenziweyo kwiKota 2?
    _____
    _____
    _____

2. Yintoni umahluko phakathi komxholo weNkqubo yeMathematika kunye nomxholo weCAPS?
    _____
    _____
    _____

Ikota 2 iVeki 6: Chaza, khuphela wandise iipateni

KwiNdibano yoCweyo 3, ukugxila kwiiPateni, iiFanshini neAljibhra yayikukuqaphela/ ukuchonga ipateni ephindaphindanayo. Saxoxa nangomahluko phakathi kolandelelwano nepateni. IKota 2 iVeki 6 yakhela kumxholo owaziswe kwiKota 1 iVeki 6.

KwiKota 2 iVeki 6 abafundi:
♦ bachaza uphindaphindo olukwiipateni besebenzisa izinto, imifanekiso nezandi.
♦ bakhuphela iipateni eziziwe ngabanye ngezinto, imifanekiso nezandi.
♦ bandisa iipateni eziziwe ngabanye.
♦ benza ezabo iipateni kumanqanaba ahlukileyo ngokobunzima njenge:
    - isanga, isikwere; isangqa, isikwere
    - isangqa, isikwere, unxantathu; isangqa, isikwere, unxantathu
    - isangqa, isikwere, isangqa, isikwere, isangqa, isikwere
    - isangqa esibomvu, isangqa esizuba, isikwere esimthubi; isangqa esibomvu, isangqa esizuba, isikwere esimthubi.
♦ chaza into engekhoyo xa inxenye yepateni ifihliwe.

Activity 13

Refer to Week 6 in *Activity Guide: Term 2* (pages 104–119).

1. Discuss how the whole class activities present lessons on pattern.

   _____
   _____
   _____

2. Read steps 5 and 6 of the teacher-guided activity on page 116. How does the teacher scaffold the activities and guide the learners with questions?

   _____
   _____
   _____

Term 2 Content Summary (Week 6)

Activity 14

Refer to Appendix A: Term 2 Weekly Content Summary (Weeks 4–7). Read the content overview for Week 6: Patterns, Functions and Algebra on page 20 of *Activity Guide: Term 2*.

1. What are the topics for Week 6?

   _____
   _____

2. What new knowledge is introduced in this week?

   _____
   _____
   _____

3. What skills from previous weeks are practised?

   _____
   _____
   _____

4. Match the activities in Appendix A: Term 2 Weekly Content Summary (Weeks 4–7) with the lessons in each week.

Umsebenzi 13

Bhekisa kwiVeki 6 kw*isiKhokelo semiSebenzi: Ikota 2* (amaphepha 104–119).

1. Xoxa ngendlela eza kuthi iklasi yonke iyenze ngayo imisebenzi ukubonisa izifundo ngeepateni.
    _____
    _____
    _____

2. Funda inyathelo 5 nele6 lomsebenzi okhokelwa ngutitshala kwiphepha 117. Ingaba utitshala ubaxhasa abakhokele njani abafundi ngemibuzo?
    _____
    _____
    _____

IsiShwankathelo somXholo weKota 2 (Iveki 6)

Umsebenzi 14

Bhekisa kwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki (IiVeki 4–7). Funda amagqabantshintshi ngomxholo weVeki 6: iiPateni, iiFanshini neAljibhra kwiphepha 21 kw*isiKhokelo semiSebenzi: Ikota 2*.

1. Zeziphi izihloko zeVeki 6?
    _____
    _____

2. Loluphi ulwazi olutsha olwaziswe kule veki?
    _____
    _____
    _____

3. Zeziphi izakhono ezisukela kwiiveki ezidlulileyo eziqheliswayo?
    _____
    _____
    _____

4. Tshatisa imisebenzi ekwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki (IiVeki 4–7) nezifundo kwiveki nganye.

Session 4: Data Handling

<div align="right">1 hour</div>

The focus of Term 2 Week 7 is Data Handling.

Term 2 Content overview: Data Handling

Refer to Data Handling in the content overview (*Concept Guide*, page 136).

Activity 15

1. What concepts are covered in Term 2?

   _____
   _____
   _____

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

   _____
   _____
   _____

Data Handling

The Data Handling Content Area focuses on the purpose and process of handling data. It involves solving a problem or answering a question by collecting, sorting, representing and interpreting data.
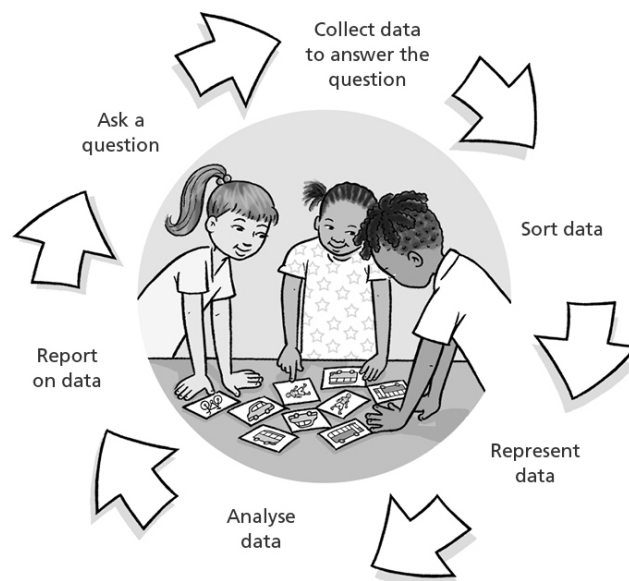
Iseshoni 4: ULwazi oluQokelelweyo

Ekugxilwe kuko kwiKota 2 iVeki 7 luLwazi oluQokelelweyo.

Amagqabantshintshi ngomxholo weKota 2: ULwazi oluQokelelweyo

Bhekisa kuLwazi oluQokelelweyo kumagqabantshintshi omxholo (*IsiKhokelo seeKhonsepthi*, iphepha 137).

Umsebenzi 15

1. Zeziphi iikhonsepthi ezenziweyo kwiKota 2?

_____

_____

_____

2. Yintoni umahluko phakathi komxholo weNkqubo yeMathematika nomxholo kaCAPS?

_____

_____

_____

ULwazi oluQokelelweyo

INkalo yomXholo yoLwazi oluQokelelweyo igxile kwinjongo nakwinkqubo yolwazi oluqokelelweyo. Iquka ukusombulula ingxaki okanye ukuphendula umbuzo ngokuqokelela, ukuhlela, ukubonisa nokutolika ulwazi.
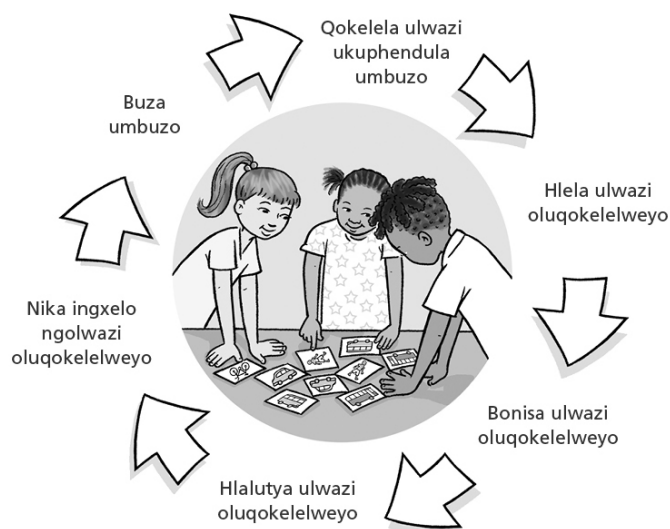
In Grade R learners should have many opportunities to sort objects according to one or more attributes, such as colour, size or shape. Sorting is part of Data Handling, but it is not the only focus. It is important to always bring the learners back to the question that has been posed and the reason why they are collecting, sorting and thinking of ways to represent the data.

Questions are key to Data Handling, e.g.:
- I wonder which cooldrink most learners like?
- How should we collect our data?
- How should we sort the data?
- How should we represent the data?

Activity 16
Discuss how you could plan and implement a Data Handling activity based on the above questions. Record your ideas on flipchart paper.

Representing data
Grade R learners explore different ways of showing or displaying the information they have collected. A **pictograph** is a way of representing data using pictures. In the whole class activity on Day 3 of Week 7, learners discuss how they come to school. Each learner is given a smiley face on **exactly the same size piece of paper**. They display the data by putting their picture in a column to represent four different means of transport. It is important to place the data in the columns, **without spaces** between the pieces of paper. The data is clearly represented and easy to interpret in order to answer the question: 'How do most learners come to school?'.

KwiBanga R abafundi mabafumane amathuba amaninzi okuhlela izinto ngokweathribhyuthi enye nangaphezulu, njengombala, ubungakanani okanye imilo. Ukuhlela inxenye yoLwazi okuQokelelweyo, kodwa kungagxilwa kuloo nto yodwa. Kubalulekile ukumana ubuyisela abafundi kumbuzo obubuziweyo nokubanika isizathu sokuba kutheni beqokelela, bahlele kwaye bacinge ngeendlela zokubonisa ngolo lwazi.

Imibuzo ingundoqo kuLwazi oluQokelelweyo, umz.:

♦ Inokuba bethu uninzi lwabafundi luthanda esiphi isiselo?
♦ Singaluqokelela njani ulwazi lwethu?
♦ Singaluhlela njani ulwazi?
♦ Singalubonisa njani ulwazi?

👥 Umsebenzi 16

Xoxani ngendlela eninokwenza ngayo isicwangciso nokwenza umsebenzi nisebenzisa uLwazi oluQokelelweyo ngokwale mibuzo ingasentla. Bhalani phantsi enikucingayo kwiphepha lefliptshathi.

Bonisa ulwazi oluqokelelweyo

Abafundi beBanga R bakhangela iindela azahlukeneyo zokubonisa okanye zokwandlala iinkcukacha abaziqokeleleyo. **Ipikthografu** (igrafu yemifanekiso) yindlela yokubonisa ulwazi oluqokelelweyo usebenzisa imifanekiso. Kumsebenzi weklasi yonke ngoSuku 3 lweVeki 7, abafundi baxoxa ngendlela abeza ngayo esikolweni. Umfundi ngamnye unikwa ubuso obuncumileyo **ephepheni elilingana nabo ngqo**. Babonisa ulwazi lwabo ngokubeka umfanekiso wabo kwikholamu ukubonisa iindlela ezine ezahlukeneyo zothutho. Kubalulekile ukubeka ulwazi kwiikholamu, **kungabikho zithuba** phakathi kweziqwengana zephepha. Olu lwazi luboniswe ngokucacileyo kwaye kulula ukuluchaza khon'ukuze kuphendulwe umbuzo: 'Ingaba beza ngantoni abafundi abaninzi esikolweni?'

Term 2 Content Summary (Week 7)

Activity 17

Refer to Appendix A: Term 2 Weekly Content Summary (Weeks 4–7). Read the content overview for Week 7: Data Handling on page 20 of *Activity Guide: Term 2*.

1. What are the topics for Week 7?
    _____
    _____

2. What new knowledge is introduced in this week?
    _____
    _____
    _____

3. What skills from previous weeks are practised?
    _____
    _____
    _____

4. Match the activities in Appendix A: Term 2 Weekly Content Summary (Weeks 4–7) with the lessons in each week.

5. Refer to the teacher-guided activity in Week 7 (*Activity Guide: Term 2*, page 132). Discuss how the teacher guides the learners to sort the animals and then represent the data on a grid.

Isishwankathelo soMxholo weKota 2 (Iveki 7)

Umsebenzi 17

Bhekisa kwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki neVeki (IiVeki 4–7).
Funda amagqabantshintshi omxholo eVeki 7: ULwazi oluQokelelweyo kwiphepha 21
le*siKhokelo semiSebenzi: Ikota 2*.

1.   Zeziphi izihloko zeVeki 7?
   _____
   _____

2.   Loluphi ulwazi olutsha olwaziswayo kule veki?
   _____
   _____
   _____

3.   Zeziphi izakhono zeeveki ezidlulileyo eziqheliswayo?
   _____
   _____
   _____

4.   Tshatisa imisebenzi ekwiSingeniso A: Ikota 2 Isishwankathelo soMxholo weVeki
   neVeki (IiVeki 4–7) nezifundo kwiveki nganye.

5.   Bhekisa kumsebenzi okhokelwa ngutitshala iVeki 7 (*IsiKhokelo semiSebenzi: Ikota 2*,
   iphepha 133). Xoxani ngendlela abakhokela ngayo utitshala abafundi ukuhlela
   izilwanyana emva koko babonise ulwazi kwigridi.

Closing activities

1 hour

 Activity 18

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

 Take back to school task

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 have 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.

Evaluation

Complete the Evaluation Form.

Imisebenzi yokuqukumbela

Umsebenzi 18

Izifundo ezifundiweyo: Cinga malunga noko ukufundileyo ngexesha lendibano yocweyo uze ugcwalise le theybhile.

Izinto esele ndizenza ezisebenza kakuhle	Iimbono ezintsha endingathanda ukuzizama

Umsebenzi ekubuyelwa nawo esikolweni

1. Qhubeka nokusebenzisa iRekhodi yoHlolo oluQhubekayo ekw*isiKhokelo semiSebenzi: Ikota 2* ukuhlola abafundi bakho. Sebenzisa amanqaku akho oqwalaselo oluqhubekayo ukwakha ubungqina boko bakuqondayo kwanabakwazi ukukwenza.
2. Chonga naziphi na iinkxalabo onazo ngendlela umfundi aqalisa ngayo ukubamba iikhonsepthi zemathematika.
3. Yiza neekopi zeerubhriki onazo ozisebenzisileyo kuhlolo lwemathematika kwindibano yocweyo olulandelayo.
4. Yiza nerekhodi yohlolo egcwalisiweyo yomfundi omnye kwindibano yocweyo elandelayo.
5. Sebenzisa *isiKhokelo semiSebenzi: Ikota 2* ukucwangcisa nokusebenzisa iNkqubo yeMathematika kwiiVeki 4–7, kuquka nokwenza indawo yemathematika egxile kwikhonsepthi kwiveki nganye.
6. Yenza amanqaku ngokusebenze kakuhle, okungasebenzanga kakuhle noko kufuneka kwenziwe ngokwahlukileyo ukuphucula ukufundisa nokufunda.

Uhlolo

Gcwalisa iFomu yoHlolo.

APPENDIX A: TERM 2 WEEKLY CONTENT SUMMARY (WEEKS 4–7)

Term 2: Activity Plan

<table>
<tr><td colspan="5" align="center">Week 4</td></tr>
<tr><td colspan="5">CONTENT AREA: SPACE AND SHAPE (GEOMETRY)</td></tr>
<tr><td colspan="5">TOPIC: Position, orientation and views; describes, sorts and compares 3-D objects
INTRODUCE NEW KNOWLEDGE: Sort 3-D objects according to similarities and differences, one more, one less
PRACTISE: Oral counting 1–15 and 5–1, counting objects 1–7, number concept 1–4, reinforce all shapes</td></tr>
<tr><td colspan="2">Whole class activities</td><td>Teacher-guided activity</td><td colspan="2">Workstation activities</td></tr>
<tr><td>Day 1</td><td>Reinforce all shapes/shape hunt.</td><td rowspan="5">Practise 1–4.
Describing an object from different positions.
Practising shapes and positions.</td><td>Activity 1</td><td>A circle/square/triangle can also be a … (create a picture).</td></tr>
<tr><td>Day 2</td><td>Feely bag – feel different shapes and describe them.</td><td>Activity 2</td><td>Make shapes using cookie cutters and playdough.</td></tr>
<tr><td>Day 3</td><td>Find shapes in class using position words.</td><td>Activity 3</td><td>Block construction – use blocks/Unifix blocks.</td></tr>
<tr><td>Day 4</td><td>Shape detectives. One more, one less.</td><td>Activity 4</td><td>Puzzles (minimum of 12 pieces).</td></tr>
<tr><td>Day 5</td><td>Direction and position. Obstacle course.</td><td></td><td></td></tr>
<tr><td colspan="5" align="center">Week 5</td></tr>
<tr><td colspan="5">CONTENT AREA: NUMBERS, OPERATIONS AND RELATIONSHIPS</td></tr>
<tr><td colspan="5">TOPIC: Recognise number symbols and number words; describes, orders and compares numbers
INTRODUCE NEW KNOWLEDGE: Introduce number 5
PRACTISE: Oral counting 1–15, counting objects 1–7, count backwards from 5 (rhymes), reinforce number concept 1–4, sequencing numbers 1–4, more/fewer</td></tr>
<tr><td colspan="2">Whole class activities</td><td>Teacher-guided activity</td><td colspan="2">Workstation activities</td></tr>
<tr><td>Day 1</td><td>Introduce 5 (5 monkeys in the fifth house).</td><td rowspan="5">Match number symbols, number words and dot cards (4 and 5).
Counting 1–7.
Estimate and count. Structure beads.
Different configurations of the same number.</td><td>Activity 1</td><td>Playdough mat 5.</td></tr>
<tr><td>Day 2</td><td>Reinforce 4 and 5 (number symbols and number words).</td><td>Activity 2</td><td>Ladybird numbers (roll correct number of paper balls).</td></tr>
<tr><td>Day 3</td><td>Counting forward and backwards. Number line.</td><td>Activity 3</td><td>Number matching – pegs.</td></tr>
<tr><td>Day 4</td><td>Reinforce 4 and 5.</td><td>Activity 4</td><td>Number puzzles to 5 (using number words).</td></tr>
<tr><td>Day 5</td><td>Reinforce numbers 1–5 (dot cards, number symbols, number words to recognise).</td><td></td><td></td></tr>
</table>

ISINGENISO A: IKOTA 2 ISISHWANKATHELO SOMXHOKO WEVEKI NEVEKI (IIVEKI 4–7)

Ikota 2: Isicwangciso somSebenzi

Iveki 4				
INKALO YOMXHOLO: ISITHUBA NEMILO (IJIYOMETRI)				
ISIHLOKO: **Indawo, ulungelelwaniso neembonakalo; uchaza, ahlele aze atshatise izinto ezingu3-D** **YAZISA ULWAZI OLUTSHA:** Hlela izinto ezingu3-D ngokufana nangokwahluka kwazo, ngaphezulu ngenye, ngaphantsi ngenye **ZIQHELISE:** Ukubala ngomlomo 1–15 no5–1, ukubala izinto 1–7, ingqikelelomanani 1–4, ukubethelela zonke iimilo				
Imisebenzi yeklasi yonke		**Imisebenzi ekhokelwa ngutitshala**	**Imisebenzi yesitishi sokusebenzela**	
Usuku 1	Bethelela zonke iimilo/khangelani iimilo.	Ziqhelise 1–4. Ukuchaza into ngokweendawo ezahlukeneyo okuzo. Ukuziqhelisa iimilo neendawo.	**Umsebenzi 1**	Isangqa/isikwere/unxantathu unako uku ... (yenza umfanekiso).
Usuku 2	Ingxowa yokumpampatha – mpampathani iimilo ezahlukahlukileyo nokuzichaza .		**Umsebenzi 2**	Yenza iimilo usebenzisa izisiki zamaqebengwana nentlama yokudlala.
Usuku 3	Khangelani iimilo eklasini nisebenzisa amagama eendawo.		**Umsebenzi 3** **Umsebenzi 4**	Iibhloko zokwakha – sebenzisa iibhloko/iibhloko ze*Unifix*. Iiphazili (amaqhekaza ali 12 ubuncinane).
Usuku 4	Abacuphi beemilo. Enye ngaphezulu, enye ngaphantsi.			
Usuku 5	Isalathiso nendawo. Umzila wemiqobo.			
Iveki 5				
INKALO YOMXHOLO: AMANANI, IIOPAREYSHINI NOLALWAMANO				
ISIHLOKO: **Qaphela iisimboli zamanani namagama amanani; uchaza, ulandelelanisa aze atshatise amanani** **YAZISA ULWAZI OLUTSHA**: Yazisa inani u5 **ZIQHELISE:** Ukubala ngomlomo 1–15, ukubala izinto 1–7, ukubala ubuya umva usuka ku5 (izicengcelezo), bethelela ingqikelelomanani 1–4, ulandelelaniso lwamanani 1–4, maninzi/ambalwa				
Imisebenzi yeklasi yonke		**Imisebenzi ekhokelwa ngutitshala**	**Imisebenzi yesitishi sokusebenzela**	
Usuku 1	Yazisa inani u5 (iinkawu ezi5 kwindlu yesihlanu).	Tshatisa amakhadi aneesimboli zamanani, amanani angamagama namakhadi anamachokoza (u4 no5). Ukubala ukusuka ku1–7. Thelekelela ubale. Amaso okuhlela. Ukwakheka kwenani elinye ngeendlela ezahlukeneyo.	**Umsebenzi 1** **Umsebenzi 2**	Imethi yentlama yokudlala 5. Amanani kabhantom (qengqa inani elichanekileyo leebhola zamaphepha).
Usuku 2	Bethelela u4 no5 (iisimboli zamanani namanani angamagama).		**Umsebenzi 3** **Umsebenzi 4**	Ukutshatisa amanani – iiphegi. Iiphazili zamanani ukuya ku5 (usebenzisa amanani angamagama).
Usuku 3	Ukubala usiya phambili nokubala ubuyela umva. Umgcamanani.			
Usuku 4	Ukubethelela u4 no5.			
Usuku 5	Ukubethelela amanani 1–5 (amakhadi anamachokoza, iisimmboli zamanani, amanani angamagama ekufuneka aqatshelwe).			

Week 6				
CONTENT AREA: PATTERNS, FUNCTIONS AND ALGEBRA				
TOPIC: Copies and extends simple repeating patterns; creates own patterns; describes the repeat in patterns **INTRODUCE NEW KNOWLEDGE:** Copy and extend simple patterns, create and explain own pattern, oral counting 1–20, count backwards from 7 **PRACTISE:** Sequencing numbers 1–5, counting objects 1–7, making groups the same				
Whole class activities		**Teacher-guided activity**	**Workstation activities**	
Day 1	Physical patterns.	Focus on number concept 1–5. Shake and break. Make equal groups. Patterns with a partner. Unifix blocks.	**Activity 1**	Extension of a pattern – drawing and colouring in.
Day 2	Identifying patterns in everyday objects.		**Activity 2**	Snake patterns – using shapes.
Day 3	Problem solving using patterns.		**Activity 3**	Pattern cards – using Unifix blocks.
Day 4	Making patterns using everyday objects.		**Activity 4**	Threading patterns with beads.
Day 5	Sound patterns.			
Week 7				
CONTENT AREA: DATA HANDLING				
TOPIC: Collects and sort objects; represents sorted collections of objects; discusses and reports on sorted collections of objects **INTRODUCE NEW KNOWLEDGE:** Draw a picture of collected objects, answer questions on own picture **PRACTISE:** Oral counting 1–20 and backwards from 7, counting objects 1–7, more than/less than/equal to, number concept 1–5, sorting and classifying				
Whole class activities		**Teacher-guided activity**	**Workstation activities**	
Day 1	Collects and sort objects (round or square).	Estimating. Counting. Sorting collections of animals. Pictograph: more/less. Questioning.	**Activity 1**	Cutting and sorting transport pictures.
Day 2	Sorting game. Poster 8.		**Activity 2**	Sorting waste objects.
Day 3	Pictograph: How do you get to school?		**Activity 3**	Shape graph (use cut out shapes).
Day 4	Discuss Day 3 results (asking questions).		**Activity 4**	Sorting by colour.
Day 5	Collect and sort classroom objects.			

Iveki 6				
INKALO YOMXHOLO: IIPATENI, IIFANSHINI NEALJIBHRA				
USIHLOKO: Ukhuphela andise iipateni eziphindaphindayo ezilula; wenza ezakhe iipateni; uchaza uphindaphindo kwiipateni				
YAZISA ULWAZI OLUTSHA: Ukukhuphela andise iipateni eziphindaphindayo ezilula; wenza acacise ezakhe iipateni, ukubala ngomlomo 1–20, ubala ebuya umva ukusuka ku7				
ZIQHELISE: Ukulandelelanisa amanani ukusuka ku1–5, ukubala izinto ukusuka ku1–7, wenza amaqela afane				
Imisebenzi yeklasi yonke		**Imisebenzi ekhokelwa ngutitshala**	**Imisebenzi yesitishi sokusebenzela**	
Usuku 1	Iipateni ezibambekayo.	Gxila kwingqikelelo manani 1–5. Hlukuhla uze uchithe. Yenza amaqela alinganayo. Iipateni neqabane. Iibhloko ze*Unifix*.	**Umsebenzi 1**	Ukwandisa iipateni – ukuzoba nokufaka umbala.
Usuku 2	Ukuchonga iipateni kwizinto zemihla ngemihla.		**Umsebenzi 2**	Iipateni zenyoka – kusetyenziswa iimilo.
			Umsebenzi 3	Iipateni zamakhadi –kusetyenziswa iibhloko ze*Unifix*.
Usuku 3	Ukusombulula iingxaki kusetyenziswa iipateni.		**Umsebenzi 4**	Ukuhlohla iipateni ngamaso.
Usuku 4	Ukwenza iipateni kusetyenziswa izinto zemihla ngemihla.			
Usuku 5	Iipateni zesandi.			
Iveki 7				
INKALO YOMXHOLO: ULWAZI OLUQOLELWEYO				
USIHLOKO: Ukuqokelela nokuhlela izinto; ukubonisa ingqokelela yezinto ezihleliweyo; ukuxoxa nokunika iingxelo ngengqokelela yezinto ezihleliweyo				
YAZISA ULWAZI OLUTSHA: Zoba umfanekiso wezinto eziqokelelweyo, phendula imibuzo ngezinto ezisemfanekisweni wakhe				
ZIQHELISE: Ukubala ngomlomo 1–20 nokubala abuye umva ukusuka ku7, ukubala izinto ukusuka ku1–7, ngaphezulu kune-/ngaphantsi kune-/ilingana ne-, ingqikelelomanani ukusuka ku1–5, ukuhlela nokwahlula				
Imisebenzi yeklasi yonke		**Umsebenzi okhokelwa ngutitshala**	**Imisebenzi yesitishi sokusebenzela**	
Usuku 1	Ukuqokelela nokuhlela izinto (engqukuva okanye eisisikwere).	Uthelekelelo. Ukubala. Ukuhlela ingqokelela yezilwanyana. Ipikthografu: ngaphezulu/ngaphantsi. Ukubuza imibuzo.	**Umsebenzi 1**	Ukusika nokuhlela imifanekiso yezithuthi.
			Umsebenzi 2	Ukuhlela izinto eziyinkunkuma.
Usuku 2	Umdlalo wokuhlela. IPowusta 8.		**Umsebenzi 3**	Igrafu yeemilo (sebenzisa iimilo ezisikwe zakhutshwa).
Usuku 3	Ipikthografu: Uya kanjani esikolweni?		**Umsebenzi 4**	Ukuhlela ngokombala.
Usuku 4	Ukuxoxa ngeziphumo zoSuku 3 (ukubuza imibuzo).			
Usuku 5	Ukuqokelela nokuhlela izinto eziseklasini.			

Workshop 5 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 5

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. Uzakukusebenzisa njani oko ukufundileyo apha kwiklasi yakho yeBanga R?

_____
_____
_____
_____

5. Ingaba unazo iingcebiso zokuphucula nangakumbi iindibano zocweyo?

_____
_____
_____
_____