IsiXhosa/English

INkqubo yeMathematika yokuPhucula yeBanga R
Grade R Mathematics Improvement Programme

INdibano yoCweyo 3 ● Workshop 3
Incwadi yokuSebenzela yoMthathinxaxheba ● Participant's Workbook

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Overview

Purpose

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

The purpose of this workshop is to assist teachers to implement the Maths Programme in their classrooms. Participants will strengthen their understanding of the CAPS Content Areas covered in Weeks 6–9 of Term 1 and practise skills in mediating maths learning.

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

Learning outcomes

♦ To reflect on the implementation of Term 1 Weeks 3–5
♦ To apply the Maths Programme principles in weekly planning
♦ To explore strategies to support teaching maths in Grade R
♦ To engage with the Maths Programme content of Term 1 Weeks 6–9 (Patterns, Functions and Algebra; Space and Shape (Geometry); Measurement; Numbers, Operations and Relationships)
♦ To start to understand how learners' different interests and ability levels inform learning and teaching

Workshop content

♦ Opening and reflection	(1 hour)
♦ Session 1: Patterns, Functions and Algebra	(1 hour)
TEA	
♦ Session 2: Space and Shape (Geometry)	(1 hour)
♦ Session 3: Measurement	(1 hour)
LUNCH	
♦ Session 4: Numbers, Operations and Relationships	(1 hour)
♦ Session 5: Planning for teaching	(1 hour)

Amagqabantshintshi

Injongo

Le yeyesithathu 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. Abathathinxaxheba bazakomeleza ingqiqo yabo yeeNkalo zomXholo zika-CAPS ezizakwenziwa kwiiVeki 6–9 zeKota 1 baze baziqhelise ngezakhono zongenelelo lokufundwa kwemathematika.

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

Iziphumo zokufunda

♦ Ukuthetha ngokuphunyezwa kweKota 1 iiVeki 3–5
♦ Ukusebenzisa imigaqo yeNkqubo yeMathematika kucwangciso lweveki
♦ Ukuqwalasela amacebo okunika inkxaso ekufundisweni kwemathematika kwiBanga R
♦ Ukuqwalasela umxholo weNkqubo yeMathematika weKota 1 iiVeki 6–9 (IiPateni, iiFanshini neAljibhra; IsiThuba neMilo (iJiyometri); Umlinganiselo; Amanani, iiOpareyshini noLwalamano)
♦ Ukuqalisa ukuqonda indlela umdla owahlukileyo wabafundi namazinga wezakhono zabo onegalelo ngayo ekufundeni nasekufundiseni

Umxholo wendibano yocweyo

♦ Ukuvula nocamngco   (1 iyure)
♦ Iseshoni 1: IiPateni, iiFanshini neAljibhra   (1 iyure)
ITI
♦ Iseshoni 2: IsiThuba neMilo (iJiyometri)   (1 iyure)
♦ Iseshoni 3: Umlinganiselo   (1 iyure)
ISIDLO SASEMINI
♦ Iseshoni 4: Amanani, iiOpareyshini noLwalamano   (1 iyure)
♦ Iseshoni 5: Ukucwangcisela ukufundisa   (1 iyure)

Opening and reflection

1 hour

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

Activity 1

1. Discuss your progress in implementing Weeks 3–5 and the *Take back to school* task from Workshop 2.
2. Share your photograph of the Space and Shape (Geometry) focus in the maths area.
3. How did you record your observations of each learner during the teacher-guided activity?
4. Which teaching principles are you more aware of in your classroom?

Video 1

Watch the video of how the teacher uses a rhyme to practise counting and solving word problems.

Discuss how you managed this and other lessons that incorporated rhymes into counting activities.

_____
_____
_____
_____

Ukuvula nocamngco

1 iyure

Thethani ngokuphunyezwa kweNkqubo yeMathematika kwinkqubo yemihla ngemihla nize nenze lo msebenzi ulandelayo kumaqela enu.

Umsebenzi 1

1. Xoxani ngenkqubela ekuphunyezweni kweeVeki 3–5 kunye no*Msebenzi ekubuyelwa nawo esikolweni* weNdibano yoCweyo 2.
2. Yabelanani ngeefoto zenu ezigxile kwisiThuba neMilo (iJiyometri) kwindawo yemathematika.
3. Nikurekhode njani oko nikuqwalaseleyo ngomfundi ngamnye ngexesha lomsebenzi okhokelwa ngutitshala?
4. Yeyiphi imigaqo yokufundisa oyazi ncakasana eklasini yakho?

Ividiyo 1

Bukela ividiyo engendlela utitshala asisebenzisa ngayo isicengcelezo ukuqhelisa ukubala nokusombulula iingxaki zamagama.

Xoxani ngendlela enikwaze ngayo ukukwenza oku kunye nezinye izifundo ezibandakanya izicengcelezo kwimisebenzi yokubala.

_____
_____
_____
_____

Session 1: Patterns, Functions and Algebra

1 hour

This workshop focuses on teaching the following Maths Programme content: Term 1 Weeks 6–9. This session focuses on Term 1 Week 6: Patterns, Functions and Algebra.

Term 1 Content overview: Patterns, Functions and Algebra

Refer to the Patterns, Functions and Algebra Content Area on page 124 of the *Concept Guide*.

Activity 2

In your group, discuss:

1. What concepts are covered in Term 1?

_____

_____

_____

2. What are the differences between the content and the content from CAPS?

_____

_____

_____

Understanding patterns

Developing an understanding of patterns is an important part of maths. Patterns are all around us and children encounter lots of patterns in their daily lives at home and at school.

Think about your own understanding of the Content Area: Patterns, Functions and Algebra and complete Activity 3 with your group.

Iseshoni 1: IiPateni, iiFanshini neAljibhra

Le ndibano yocweyo igxile ekufundiseni ngomxholo weNkqubo yeMathematika weKota 1 iiVeki 6-9. Le seshoni igxile kwiKota 1 iVeki 6: IiPateni, iiFanshini neAljibhra.

Amagqabantshintshi ngomxholo weKota 1: IiPateni, iiFanshini neAljibhra

Jonga kwiNkalo yoMxholo weePateni, iiFanshini neAljibhra kwiphepha 125 *isiKhokelo seeKhonsepthi*.

Umsebenzi 2

Kwiqela lenu, xoxani ngokuba:

1. Zeziphi iikhonsepthi eziqukwe kwiKota 1?

_____

_____

_____

2. Zintoni ezingumahluko phakathi komxholo kunye nomxholo kaCAPS?

_____

_____

_____

Ukuqonda iipateni

Ukuseka ingqiqo yeepateni kuyinxenye ebalulekileyo kwimathematika. Iipateni zisingqongile kwaye abantwana badibana neepateni ezininzi kubomi babo bemihla ngemihla emakhaya nasesikolweni.

Cinga ngeyakho ingqiqo yeNkalo yoMxholo: IiPateni, iiFanshini neAljibhra uze wenze Umsebenzi 3 neqela lakho.

Activity 3

In your group, discuss:

1. What kinds of patterns might Grade R learners observe in their daily lives?

_____

_____

2. Look at Poster 7 in the *Poster Book*.

♦　　What patterns do you see?

_____

_____

♦　　What is the pattern?

_____

_____

♦　　Can you repeat the pattern? Explain.

_____

_____

A **pattern** describes the regular sequence of objects, pictures, movements, actions or events that are repeated in a predictable way.

A **sequence** is the particular order in which objects, pictures, movements, actions or events follow each other.

Identifying patterns

In a regular pattern, we can see how the elements in the sequence are repeated. We can also predict the order or sequence of the elements and how they will be repeated to create a pattern. In the pattern below we can see that the circle and square are repeated and we can predict what the next shape in the sequence will be.

Umsebenzi 3

Kwiqela lenu, xoxani:

1. Zeziphi iindidi zeepateni ezinokuqwalaselwa ngabafundi beBanga R kubomi babo bemihla ngemihla?

_____

_____

2. Jonga iPowusta 7 kw*iNcwadi yeePowusta*.

♦   Zeziphi iipateni ozibonayo?

_____

_____

♦   Yintoni ipateni?

_____

_____

♦   Ingaba ungakwazi ukuyiphinda le pateni? Cacisa.

_____

_____

Ipateni ulandelelwano lwezinto njengesiqhelo, iintshukumo okanye iziganeko eziphindaphindeneyo ngendlela enokuxelwa kwangaphambili.
Ulandelelaniso yindlela ethile apho izinto, iintshukumo okanye iziganeko ezilandelelana ngayo.

Ukwalatha iipateni

Kwipateni engalandelelaniyo singabona indlela amalungu akwipateni aphindwe ngayo. Singaqikelela nendlela okanye ulandelelwaniso lwamalungu nokuba azakuphindaphindwa njani ukwenza ipateni. Kwipateni engezantsi singabona ukuba isangqa nesikwere ziyaphindwa kwaye sinokuqikelela ukuba imilo elandelayo kulandelelwano izakuba yeyiphi na.

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Activity 4

1. Which shape is first?

_____

2. Which shape is next?

_____

3. What shape do you think will come after the last square?

_____

4. How would you extend the pattern?

_____

Repeating patterns are made up of a repeated sequence of elements, e.g. shapes, colours, sounds, objects, movements.

In the next activity, the facilitator will show you a sequence of shapes. You will use the attribute blocks on your table to copy this sequence and discuss how to extend this to create a pattern.

Activity 5

1. What is the pattern?

_____
_____

2. What is the repeating part of the sequence?

_____
_____

Umsebenzi 4

1. Yeyiphi imilo eza kuqala?

_____

2. Yeyiphi imilo elandelayo?

_____

3. Ucinga ukuba yeyiphi imilo ezakulandela emva kwesikwere sokugqibela?

_____

4. Ungayandisa njani ipateni?

_____

Iipateni eziphindaphindwayo zenziwe ngolandelelwano lwamalungu, umz. iimilo, imibala, izandi, izinto, iintshukumo.

Kumsebenzi olandelayo, umbhexeshi uzakunibonisa ulandelelwano lweemilo. Nizakusebenzisa iibhloko zeathribhyuthi ezisezitafileni zenu ukukhuphela olu landelelwano nize nixoxe ngendlela enizakuyongeza ngayo ukwenza ipateni.

Umsebenzi 5

1. Yintoni ipateni?

_____

_____

2. Yeyiphi inxenye eziphindaphindayo yepateni?

_____

_____

Introduce learners to patterns that start with only one attribute that differs, e.g. shape, and provide enough items in the sequence so that learners can work out what the pattern is (the repeating part in the sequence).

It is important for teachers to provide a range of opportunities for learners to identify, copy and create different kinds of patterns using sounds, actions, objects and pictures.

🎥 **Video 2**

Watch the video of the teacher setting up activities that provide opportunities for learners to create and discuss patterns.

Notice how the teacher guides the learners through questions and prompts to create a pattern. Write down the vocabulary that she and the learners using during these activities.

_____

_____

_____

_____

Refer to pages 160–173 of the *Concept Guide* to read more about teaching Patterns, Functions and Algebra in Grade R. You will also find a list of appropriate questions and vocabulary for this Content Area.

The **level principle** says that learners are at different starting points in Grade R. Each learner's prior knowledge is the starting point for what they will learn. They can use what they know already to learn new maths concepts and skills.

Yazisa abafundi kwiipateni eziqala ngeathribhyuthi enye eyahlukileyo, umz. imilo, uze ubonelele ngezinto ezaneleyo kulandelelwano ukwenzela ukuba abafundi bakwazi ukufumanisa ukuba ithini ipateni leyo (inxenye eziphindaphindayo kulandelelwano).

Kubalulekile ukuba ootitshala babanike amathuba aliqela abafundi okwalatha, ukukhuphela nokwenza iindidi ezahlukileyo zeepateni besebenzisa izandi, iintshukumo, izinto kunye nemifanekiso.

📹 Ividiyo 2

Bukela ividiyo katitshala elungiselela imisebenzi enika abafundi amathuba okwenza nokuxoxa ngeepateni.

Qaphela indlela utitshala akhokela ngayo abafundi ngemibuzo neengcebiso ukuze benze ipateni. Bhala phantsi isigama asisebenzisayo yena nabafundi ngexesha lale misebenzi.

_____

_____

_____

_____

Jonga kumaphepha 160–173 e*siKhokelo seeKhonsepthi* ufunde banzi ngokufundiswa kweePateni, iiFanshini neAljibhra kwiBanga R. Kwakhona uzakufumana uluhlu lwemibuzo nesigama esifanelekileyo sale Nkalo yoMxholo.

Umgaqo wenqanaba uthi abafundi bakwinqanaba elahlukileyo lokuqala kwiBanga R. Ulwazi lwangaphambili lomfundi ngamnye lulinqanaba lokuqala loko bazakukufunda. Basenokusebenzisa oko basele bekwazi ukuze bafunde iikhonsepthi nezakhono ezintsha zemathematika.

Session 2: Space and Shape (Geometry)   1 hour

The focus of Term 1 Week 7 is Space and Shape (Geometry). In Workshop 2, we discussed 3-dimensional objects and 2-dimensional shapes and the content of Weeks 3–5 to be implemented in the classroom.

Term 1 Content overview: Space and Shape (Geometry)

Activity 6

Refer to the Space and Shape (Geometry) Content Area on pages 126–131 of the *Concept Guide*. You will see that circles, square and triangles are introduced in CAPS in Term 1 and rectangles are introduced in Term 4. The Maths Programme suggests that rectangles are introduced incidentally in Term 1.

1. When you taught squares did you find that learners confused squares and rectangles? Give reasons to support your answer.

_____
_____
_____
_____

2. How were rectangles introduced in Week 3 of the Maths Programme?

_____
_____
_____
_____

Identifying 2-dimensional shapes (triangles)

In Grade R learners recognise, identify and name 2-dimensional shapes: circles, squares, triangles and rectangles. The Maths Programme also suggests that learners are encouraged to describe the properties of these shapes, e.g. straight or curved lines, number of lines and corners.

Learners apply their new knowledge of shapes and reinforce this learning in the independent small group activities.

Iseshoni 2: IsiThuba neMilo (iJiyometri)   1 iyure

Ekuzakugxilwa kuko kwiKota 1 iVeki 7 sisiThuba neMilo (iJiyometri). KwiNdibano yoCweyo 2, sixoxe ngezinto ezineenkangeleko ezintathu kunye neemilo ezineekangeleko ezimbini kwakunye nomxholo weVeki 3-5 ozakwenziwa eklasini.

Amagqabantshintshi ngomxholo wekota 1: isiThuba neMilo (iJiyometri)

Umsebenzi 6

Jonga kwiNkalo yoMxholo wesiThuba neMilo (iJiyometri) kumaphepha 126-131 *esiKhokelo seeKhonsepthi*. Uzakubona izangqa, isikwere noonxantathu besaziswa kuCAPS kwiKota 1 kunye namaxande esaziswa kwiKota 4. INkqubo yeMathematika icebisa ukuba amaxande aziswe ngebhaqo kwiKota 1.

1. Xa ubufundisa izikwere ingaba ufumanise ukuba abafundi bayazibhidanisa izikwere namaxande? Nika izizathu ukuxhasa impendulo yakho.

_____

_____

_____

_____

2. Aziswe njani amaxande kwiVeki 3 yeNkqubo yeMathematika?

_____

_____

_____

_____

Ukwalatha iimilo ezineenkangeleko ezimbini (oonxantathu)

KwiBanga R abafundi banakana, balathe baze banike amagama eemilo ezineenkangeleko ezimbini: izangqa, oonxantathu kunye namaxande. INkqubo yeMathematika ikwacebisa ukuba abafundisa bakhuthazwe ukuba bachaze iimpawu zezi milo, umz. imigca engalileyo okanye enegophe, inani lemigca kunye neekona.

Abafundi basebenzisa ulwazi lwabo olutsha lweemilo baze bomeleze esi sifundo kwimisebenzi yamaqela amancinci.

📹 Video 3

Watch the video of the teacher introducing the learners to the triangle.

Notice how the teacher encourages the learners to describe the properties of the triangle.

_____

_____

_____

_____

Activity Guide: Term 1 provides many opportunities throughout the term for teachers to use open-ended questions. The *Poster Book* is used during whole class activities and small group teacher-guided activities to encourage learners to express their own ideas and solve problems.

In Activity 7, you will discuss a poster and talk about whether the questions posed are 'open-ended' or 'closed' questions.

👥 Activity 7

1. Look at Poster 8 and respond to the following questions.
♦   How many triangles can you see?
_____

♦   How do you know it is a triangle?
_____

♦   How many sides does it have?
_____

♦   How many corners does it have?
_____

♦   How many lines?
_____

♦   Can you see any other triangles?
_____

♦   What other shapes can you see?
_____

♦   What is the same about these two shapes?
_____

♦   What is different about these two shapes?
_____

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📹 Ividiyo 3

Bukela ividiyo yetitshala isazisa abafundi kunxantathu.

Qaphela indlela utitshala akhuthaza ngayo abafundi ukuba bachaze iimpawu zikanxantathu.

_____

_____

_____

_____

IsiKhokelo semiSebenzi:Ikota 1 sibonelela ngamathuba amaninzi kwikota yonke okuba ootitshala basebenzise imibuzo evulekileyo. *INcwadi yeePowusta* iyasetyenziswa ngexesha lemisebenzi yeklasi yonke nemisebenzi yamaqela amancinci akhokelwa ngutitshala ukukhuthaza abafundi bavakalise izimvo zabo kwanokusombulula iingxaki.

KuMsebenzi 7, nizakuxoxa ngepowusta nize nithethe ngokuba imibuzo ebuziweyo iyimibuzo 'evulekileyo' okanye 'evalekileyo' na.

👥 Umsebenzi 7

1. Jonga kwiPowusta 8 uze uphendule le mibuzo ilandelayo.

♦ Bangaphi onxantathu obabonayo?
_____

♦ Wazi njani ukuba ngunxantathu?
_____

♦ Unamacala amangaphi?
_____

♦ Uneekona ezingaphi?
_____

♦ Mingaphi imigca?
_____

♦ Ingaba bakhona abanye oonxantathu obabonayo?
_____

♦ Zeziphi ezinye iimilo ozibonayo?
_____

♦ Ezi milo zimbini zifana ngantoni?
_____

♦ Zahluke ngantoni ezi milo zimbini?
_____

2.   Which of the questions above are open-ended and which are closed questions?

_____

_____

The **guidance principle** encourages teachers and learners to work together to solve problems using effective questioning.

♦   **Closed questions** are questions that have a limited 'yes' or 'no' response. Closed questions can be helpful in finding out what learners know, like 'Which shape is a triangle?', 'What colour is it?'

♦   **Open-ended questions** have more than one possible answer, stimulate thinking and encourage learners to express their own ideas when solving problems.

Not all learners will grasp these concepts or learn the maths language at the same time (**level principle**).

Maths vocabulary

When learners investigate, and describe shapes and objects, they use everyday language like 'flat', 'smooth' and 'pointy'. Teachers can introduce maths vocabulary to replace everyday language, for example: straight lines, curved lines, corners, sides. We also talk about how long something is, how wide it is and refer to the height of something.

Refer to the pages 190–193 of the *Concept Guide* to read more about asking questions related to teaching and learning Space and Shape (Geometry) concepts. Also read page 192 for more about Space and Shape (Geometry) vocabulary in Grade R.

2. Kule mibuzo ingentla yeyiphi evalekileyo iyeyiphi evulekileyo?

_____

_____

Umgaqo wokukhokela ukhuthaza ootitshala nabafundi ukuba basombulule iingxaki ngokusebenzisa iindlela zokubuza ezisebenzayo.

♦ **Imibuzo evalekileyo** yimibuzo eneempendulo ezisikelwe u'ewe' no'hayi'. Imibuzo evalekileyo isenokuba luncedo ekufumaniseni oko abafundi abakwaziyo, njengo-'Yeyiphi imilo engunxantathu?', 'Inombala onjani?'

♦ **Imibuzo evulekileyo** isenokuba neempendulo ezingaphezu kwenye, ivuselela ukucinga ize ikhuthaze abafundi ukuba bavakalise ezabo iimbono xa besombulula iingxaki.

Asingabo bonke abafundi abaza kuzibamba ezi khonsepthi okanye ukufunda ulwimi lwemathematika ngaxeshanye (**umgaqo wenqanaba**).

Isigama semathematika

Xa abafundi bephanda, kwaye bechaza iimilo nezinto, basebenzisa ulwimi lwemihla ngemihla njenge-'sicaba', 'gudile' kunye no-'tsolo'. Ootitshala basenokwazisa isigama semathametika esiza kusebenza endaweni yolwimi lwemihla ngemihla, umzekelo: imigca engalileyo, imigca enamagophe, iikona, amacala. Sikwathetha ngokuba inde kangakanani na into, ibanzi kangakanani size sibhekise kumphakamo wento ethile.

Jonga kumaphepha 190–193 *esiKhokelo seeKhonsepthi* ukuze ufunde banzi ngokubuza imibuzo ephathelene nokufundisa kunye nokufunda ngeekhonsepthi zesiThuba neMilo (iJiyometri). Funda kwakhona kwiphepha 193 ukuze ufunde banzi ngesigama sesiThuba neMilo (iJiyometri) kwiBanga R.

Session 3: Measurement

1 hour

The focus of Term 1 Week 8 is Measurement: time and length.

Term 1 Content overview: Measurement

Activity 8

Refer to the Measurement Content Area on pages 132–135 of the *Concept Guide*.

In your group, review:

1. What concepts are covered in Term 1?

_____

_____

2. What are the differences between this content and the content from CAPS?

_____

_____

What is measurement?

In Activity 9 we will discuss the question 'What is measurement?'.

Activity 9

Look at the picture below and answer the question.

Who is the biggest?

_____

Iseshoni 3: Umlinganiselo

1 iyure

Okuzakugxilwa kuko kwiKota 1 iVeki 8 nguMlinganiselo: ixesha kunye nobude.

Amagqabantshintshi ngomxholo weKota 1: Umlinganiselo

Umsebenzi 8

Jonga kwiNkalo yoMxholo yoMlinganiselo ekumaphepha 132–135 *esiKhokelo seeKhonsepthi*.

Kumaqela enu, phononongani:

1. Zeziphi iikhonsepthi eziqukwe kwiKota 1?

_____

_____

2. Yintoni umahluko phakathi kwale khonsepthi kunye nomxholo kaCAPS?

_____

_____

Yintoni umlinganiselo?

KuMsebenzi 9 sizakuxoxa ngombuzo othi 'Yintoni umlinganiselo?'.

Umsebenzi 9

Jonga lo mfanekiso ungezantsi uze uphendule umbuzo.

Ngowuphi oyena mkhulu?

_____

Measurement is about finding 'how much' there is of a thing, e.g.:

♦ the length of something
♦ how much something holds
♦ the mass of something
♦ how long it takes to do something.

In order to measure, we need to decide on which attribute (feature/characteristic) we want to measure, e.g. length, mass, time. We use the following words to describe the measurements: taller, heavier, older.

We need to use units to measure. These can be non-standard units or standard units.

♦ **Non-standard measuring units** include hands, feet, crayons, pieces of string, sticks and blocks.
♦ **Standard measuring units** include litres, millilitres, kilograms, grams, metres, hours, minutes, etc.

In Grade R learners measure **informally** and use **non-standard measuring units** to measure time, length, mass, capacity and volume.

Direct comparison

Measurement in Grade R includes comparing the attribute of something 'directly' with something else. For example, measuring the length of a crayon against another crayon or comparing the height of two learners standing back-to-back.

Observe the facilitator measuring a group of participants and then complete Activity 10 in your group.

Activity 10

Refer to pages 194–207 of the *Concept Guide* to read more about Measurement and pages 136–149 of *Activity Guide: Term 1* before you answer the questions below.

Umlinganiselo ungokufumanisa ukuba 'ikho kangakanani' into ethile, umz.:

♦ ubude bento ethile

♦ into ethile iqulatha kangakanani

♦ ubunzima bento ethile

♦ kuthatha ixesha elingakanani ukwenza into ethile.

Ukuze senze umlinganiselo, kufuneka sithathe isigqibo sokuba yeyiphi iathribhyuthi (uphawu) esifuna ukwenza umlinganiselo wayo, umz. ubude, ubunzima, ixesha. Sisebenzisa la magama alandelayo ukuchaza imilinganiselo: de kune-, nzima kune-, dala kune-.

Kufuneka sisebenzise iiyunithi ukwenza umlinganiselo. Ezi isenokuba ziiyunithi ezingekho sikweni okanye iiyunithi ezisesikweni.

♦ **Iiyunithi zomlinganiselo ezingekho sikweni** ziquka izandla, iinyawo, iikhrayoni, imicu yomsonto, amakhuni kunye neebhloko.

♦ **Iiyunithi zomlinganiselo ezisesikweni** ziquka iilitha, iimililitha, iikhilogram, iigram, iimitha, iiyure, imizuzu, njlnjl.

KwiBanga R abafundi benza imilinganiselo **ngokungekho sikweni** baze basebenzise **iiyunithi zomlinganiselo ezingekho sikweni** ukwenza umlinganiseo wexesha, ubunzima, umthamo nevolumu.

Uthelekiso ngqo

Umlinganiselo kwiBanga R uquka ukuthelekisa 'ngqo' iathribhyuthi yento ethile nenye into. Umzekelo, ukwenza umlinganiselo wobude bekhrayoni ngenye ikhrayoni okanye ukuthelekisa ubude babafundi ababini bemile befulathelene.

Qwalaselani umbhexeshi xa esenza umlingnaiselo wabathathinxaxheba nize nenze Umsebenzi 10 kumaqela enu.

Umsebenzi 10

Jonga kumaphepha 194–207 *esiKhokelo seeKhonsepthi* ukuze ufunde banzi ngoMlinganiselo nakumaphepha 136–149 *esiKhokelo semiSebenzi: Ikota 1* ngaphambi kokuba uphendule imibuzo engezantsi.

1. What non-standard unit of measurement was used to measure the height of the participants?

_____

2. What other non-standard units of measurement could be used to measure the height of the participants?

_____

Time

Time is a difficult abstract concept for learners to understand. Learners need to understand how time passes in their own lives, so teachers need to relate time to the learner's daily experiences and events that are familiar to them.

Activity 11

Refer back to Term 1 Week 8 in *Activity Guide: Term 1* and with a partner discuss how time is taught in these lessons. Share your ideas about the following.
1. How can Grade R teachers/practitioners help learners understand more about the concepts of:
♦ day and night?
♦ yesterday, today and tomorrow?
♦ how long things take?
♦ the sequence of time?

_____
_____
_____
_____
_____
_____

2. How can you use your daily programme activities to teach learners about the concept of time?

_____
_____
_____
_____

1. Yeyiphi imilinganiselo engekho sikweni esetyenziswe ekwenzeni umlinganiselo womphakamo wabathathinxaxheba?

_____

2. Zeziphi ezinye iiyunithi ezingekho sikweni zomlinganiselo ezinokusetyenziswa ukwenza umlinganiselo womphakamo wabathathinxaxheba?

_____

Ixesha

Ixesha liyikhonsephi esengqondweni ekunzima ukuba abafundi bayiqonde. Abafundi kufuneka bayiqonde indlela elihamba ngayo ixesha ebomini babo, ngoko ke ootitshala kufuneka banxibelelanise ixesha namava kunye neziganeko zemihla zabafundi eziqhelekileyo kubo.

Umsebenzi 11

Buyela umva kwiKota 1 iVeki 8 kw*isiKhokelo semiSebenzi: Ikota 1* uze neqabane nixoxe ngendlela ixesha elifundiswa ngayo kwezi zifundo. Yabelanani ngeembono zenu ngoku kulandelayo.

1. Ingaba ootitshala/abasebenzi beBanga R babanceda njani abafundi ukuba baqonde banzi ngeekhonsepthi:
♦ zemini nobusuku?
♦ zephezolo, namhlanje kunye ngomso?
♦ zithatha ixesha elingakanani izinto?
♦ zolandelelwano lwexesha?

_____
_____
_____
_____
_____
_____

2. Ungayisebenzisa njani imisebenzi yenkqubo yemihla ngemihla ekufundiseni abafundi ngekhonsepthi yexesha?

_____
_____
_____
_____

3. What vocabulary is important to understand the concept of time?

_____

_____

_____

Refer to pages 194–207 of the *Concept Guide* to read more about Measurement and time. Refer to the page 210 of the *Concept Guide* to read more about asking questions related to teaching and learning of Measurement in Grade R.

3. Sesiphi isigama esibalulekileyo ukuze uqonde ikhonsepthi yexesha?

_____

_____

_____

Jonga kumaphepha 194–207 *esiKhokelo seeKhonsepthi* ukuze ufunde banzi ngoMlinganiselo nexesha. Jonga kwiphepha 211 le*siKhokelo seeKhonsepthi* ukuze ufunde banzi ngokubuza imibuzo ephethelene nokufundisa nokufunda ngoMlinganiselo kwiBanga R.

Session 4: Numbers, Operations and Relationships

1 hour

In Workshop 2, you were introduced to the concepts of counting and representation of number. In this workshop we will see how the same ideas continue into Week 6 as the number 3 is introduced. The same routine is followed as with numbers 1 and 2, namely:

Tell the *Number 3 story* and dramatise as you build up the story with the different representations of the number using frieze cards from the *Resource Kit*:

♦ animal (picture)

♦ number symbol

♦ number word

♦ dots (representing the doorbells).
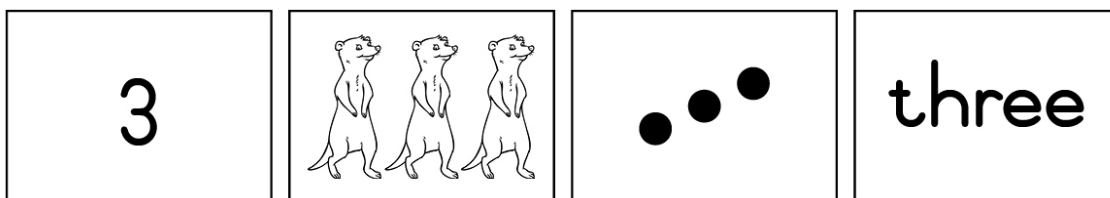
Look for objects and match the number symbol (3) and number word (three). In Week 6, learners are introduced to dot cards (from the *Resource Kit*). Learners match counters to the dot cards and discuss that 3 is made up of 1 and 2 dots.

Term 1 Content overview: Numbers, Operations and Relationships

Week 7 focuses on Space and Shape (Geometry) while Week 8 focuses on Measurement. The focus of Week 9 in Term 1 is once more on number concepts. In this session, you will investigate the relationship between numbers.

Activity 12

Refer to the Numbers, Operations and Relationships content overview on pages 114–123 of the *Concept Guide*. In your group, discuss the following features of the content overview:

1. What is Topic 1.4?
2. What sub-topics are listed under this topic?
3. What are the differences between the blue and black text? Explain why you think this is so.

Iseshoni 4: Amanani, iiOpareyshini noLwalamano

1 iyure

KwiNdibano yoCweyo 2, waziswe kwiikhonsepthi zokubala neembonakalo zamanani. Kule indibano yocweyo sizakubona ukuba ezi mbono ziqhubeka njani kwiVeki 6 njengokuba inani 3 lisaziswa. Le ndlela ifanayo iyalandelwa njengoko kwenziwe kumanani 1 no2, angala:

Balisa *Ibali lenani 3* uze ulinganise njengokuba uqhubeka nebali neembonakalo ezahlukileyo zenani usebenzisa amakhadi efrizi akw*iKiti yeziXhobo*:

♦   isilwanyana (umfanekiso)

♦   isimboli yenani

♦   inani eliligama

♦   amachokoza (amele iibheli zomnyango).
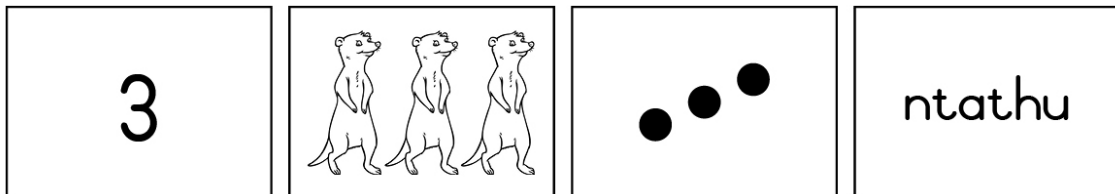
Khangela izinto uze utshatise isimboli yenani (3) kunye nenani eliligama (thathu). KwiVeki 6, abafundi baziswa kumakhadi anamachokoza (athathwe kw*iKiti yeziXhobo*). Abafundi batshatisa izixhobo zokubala namakhadi anamachokoza baze baxoxe ngokuba u3 wenziwe ngechokoza eli1 nama2.

Amagqabantshintshi ngomxholo weKota 1: Amanani, iiOpareyishini noLwalamano

IVeki 7 igxile kwisiThuba neMilo (iJiyometri) ngeli lixa iVeki 8 igxile kuMlinganiselo. Ekugxilwe kuko kwiVeki 9 kwiKota 1 kwakhona iseziikhonsepthi zenani. Kule seshoni, sizakuphanda ngolwalamano phakathi kwamanani.

Umsebenzi 12

Jonga kumagqabantshintshi omxholo waManani, iiOpareyishini noLwalamano kumaphepha 114–123 *esiKhokelo seeKhonsepthi*. Kumaqela enu, xoxani ngezi mpawu zilandelayo zamagqabantshintshi omxholo:

1.   Yintoni Isihloko 1.4?

2.   Zeziphi izihlokwana ezidweliswe phantsi kwesi sihloko?

3.   Yintoni umahluko phakathi kwetekisi ezuba nemnyama? Cacisa ukuba kutheni ucinga ngolo hlobo.

Calculating

In Grade R learners do not do number operations like addition and subtraction, multiplication and division. These concepts are gradually built up through investigation and through problem solving. For example: *I have three apples. I eat one. How many apples do I have left?*

Learners need to understand the relationship between numbers. Activities that involve breaking down and building up numbers help learners to understand the relationships between numbers and the value of numbers. For example: *5 is made up of 2 and 3, 1 and 4.*

Demonstration
Watch the demonstration of a 'shake-and-break' game and then discuss your observations in your group.

 Activity 13

Discuss the demonstration you have just watched.
1. What number concepts could the learners learn by playing this game?
_____
_____

2. What questions did the facilitator use that highlighted addition and subtraction?
_____
_____
_____
_____

Not all learners will demonstrate an understanding of these number concepts at the same time (**level principle**).

Ukubala

KwiBanga R abafundi abazenzi iiopareyshini zamanani njengokudibanisa nokuthabatha, uphindaphindo nokwahlula. Ezi khonsepthi ziyakhuliswa kancinci ngokuphanda nangokusombulula iingxaki. Umzekelo: *Ndinama-apile amathathu. Nditya libe linye. Ndishiyeke nama-apile amangaphi?*

Abafundi kufuneka baluqonde ulwalamano phakathi kwamanani. Imisebenzi equka ukuqhekeza nokwakha amanani inceda abafundi baluqonde ulwalamano phakathi kwamanani kunye nexabiso lamanani. Umzekelo: *u5 wenziwe ngo2 no3, ngo1 no4.*

Umboniso

Bukelani umboniso womdlalo ka-'hlukuhla uchithe' nize nixoxe ngoko nikuqapheleyo kwiqela lenu.

Umsebenzi 13

Xoxa ngomboniso osandula ukuwubukela.

1. Zeziphi iingqikelelomanani abanokuzifunda abafundi ngokudlala lo mdlalo?
   _____
   _____

2. Yeyiphi imibuzo esetyenziswe ngumbhexeshi ukuqaqambisa udibaniso nokuthabatha?
   _____
   _____
   _____
   _____

Ayingabo bonke abafundi abazakubonisa ukuziqonda ezi ngqikelelomanani ngaxeshanye (**umgaqo wenqanaba**).

Session 5: Planning for teaching

1 hour

Term 1 Content Summary (Weeks 6–9)

Appendix A: Term 1 Weekly Content Summary (Weeks 6–9) outlines the main Content Area Focus for each week, the topics to be covered, the new knowledge and practise focus for each week, and suggested activities for whole class, teacher-guided and independent group work for the week.

Activity 14

Look at Appendix A: Term 1 Weekly Content Summary (Weeks 6–9). Answer the questions.

Questions	Week 6	Week 7	Week 8	Week 9
What is the Content Area Focus for the week?				
What are the key concepts that learners will be learning?				
What new knowledge is introduced?				
What skills are being practised?				

Iseshoni 5: Ukulungisela ukufundisa

Ikota 1 isiShwankathelo somXholo (Iiveki 6–9)

Isingeniso A: Ikota 1 Isishwankathelo soMxholo weVeki neVeki (Iiveki 6–9) sibonisa ngeNkalo yomXholo ekuGxininiswa kuyo engundoqo yeveki, izihloko ekuzakunyathelwa kuzo, ulwazi olutsha noqheliselo ekuzakugxilwa kulo kwiveki nganye, kunye nemisebenzi yeklasi yonke, umsebenzi okhokelwa ngutitshala kunye nomsebenzi weqela wokusebenza ngokuzimeleyo ekucetyiswa ngayo ngeveki.

Umsebenzi 14

Jonga isiNgeniso A: Ikota 1 Isishwankathelo soMxholo weVeki neVeki (6–9).
Phendula le mibuzo.

Imibuzo	Iveki 6	Iveki 7	Iveki 8	Iveki 9
Ithini iNkalo yoMxholo ekuGxininiswa kuyo kule veki?				
Zithini iikhonsepthi ezingundoqo ezizakufundwa ngabafundi?				
Loluphi ulwazi olutsha oluzakwaziswa?				
Zeziphi izakhono ekuqheliswa ngazo?				

Activity Guide: Term 1: Weeks 6, 7, 8 and 9

Refer to Weeks 6, 7, 8 and 9 in *Activity Guide: Term 1*. Complete Activity 15 in your group.

Activity 15

Find Weeks 6, 7, 8 and 9 in *Activity Guide: Term 1*. Answer the questions.
1.   What is the Content Area Focus for each week?
2.   What topics and new knowledge are taught in each week?
3.   How does the 'Practise' content link to the previous week?
4.   What do you need to get ready before teaching each week?
5.   Read the whole class activities and small group activities.
6.   Discuss in your small group how you will plan and organise your class for these four weeks of teaching.

Remember that in Grade R assessment is informal and continuous. We need to observe learners throughout the day, inside and outside the classroom. The eye icon reminds us that we need to observe the learners while they are busy, and we need to listen carefully while they are talking to us and to their peers.

The Maths Programme is designed around the rotation of small groups during a week and the teacher pays special attention to one group a day, watching and listening as the learners complete specific tasks. This time gives the teacher the opportunity to carefully observe each learner and gather information on their progress.

Look at the shaded block at the end of the teacher-guided activity: '**Check that learners are able to**'. The teacher makes a mental note of each learner and once the learners have left for the day she writes down her observations in a dedicated observation book that has space for each learner's notes.

IsiKhokelo semiSebenzi: Ikota1: iiVeki 6, 7, 8 no9

Jonga iiVeki 6, 7, 8 no9 kw*isiKhokelo semiSebenzi: Ikota 1*. Yenzani Umsebenzi15 kumaqela enu.

Umsebenzi 15

Fumana iiVeki 6, 7, 8 no9 *kwisiKhokelo semiSebenzi: Ikota 1*. Phendula imibuzo.

1. Yeyiphi iNkalo yomXholo ekuGxininiswa kuyo kwiveki nganye?
2. Zeziphi izihloko kunye nolwazi olutsha olufundiswayo kwiveki nganye?
3. Umxholo ka'Ziqhelise' unxulumana njani noweveki ephelileyo?
4. Yintoni odinga ukuyilungiselela ngaphambi kokufundisa kwiveki nganye?
5. Funda imisebenzi yeklasi yonke kunye nemisebenzi yamaqela amancinci.
6. Xoxani kumaqela enu amancinci ngendlela ezinakucwangcisa ngayo nize nilungiselele iiklasi zenu kwezi veki zine zokufundisa

Khumbula ukuba uhlolo lweBanga R alukho sikweni kwaye aluqhubeki. Kufuneka siqwalasele abafundi imini yonke, ngaphakathi nangaphandle eklasini. Iliso lisikhumbuza ukuba kufuneka sibaqwalasele abafundi xa bexakekile, kwaye kufuneka siphulaphule ngononophelo xa bethetha nathi okanye bethetha noogxa babo.

INkqubo yeMathematika ihlelwe ngokujikeleza kwamaqela amancinci ebudeni beveki kwaye notitshala unikela ingqalelo ekhethekileyo kwiqela elinye ngosuku, ebukele kwaye emamele njengokuba abafundi besenza imisebenzi ethile. Eli xesha linika utitshala ithuba lokuqwalasela umfundi ngamnye ngokukhethekileyo nokuqokelela ulwazi ngenkqubela yabo.

Jonga kwibhloko ekhuhliweyo ekupheleni komsebenzi okhokelwa ngutitshala: '**Qwalasela ukuba abafundi bayakwazi uku-**'. Utitshala ugcina engqondweni ngomfundi ngamnye baze bathi bakumka abafundi ekupheleni kosuku abhale phantsi oko akuqwalaseleyo kwincwadi elungiselelwe uqwalaselo enendawo yokubhala amanqaku ngomfundi ngamnye.

Closing activities

Activity 16

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. Read the *Concept Guide* pages that were referred to during this workshop.
2. Use *Activity Guide: Term 1* to plan and implement Weeks 6–9 of the Maths Programme, including creating a maths area with a focus on the concept for each week.
3. Write an evaluation of what worked well and what did not work so well. Bring your plan and evaluation to the next workshop.
4. Bring examples or photographs of work that learners did.

Evaluation

Complete the Evaluation Form.

Imisebenzi yokuqukumbela

Umsebenzi 16

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. Funda amaphepha e*siKhokelo seeKhonsepthi* ekwalathwe kuwo ngexesha lendibano yocweyo.
2. Sebenzisa *isiKhokelo semiSebenzi: Ikota 1* ukulungiselela nokuphumeza iNkqubo yeMathematika yeeVeki 6–9, kuquka ukwenza indawo yemathematika egxile kwikhonsepthi yeveki nganye.
3. Bhala uhlolo ngoko kusebenze kakuhle kwanokuba zintoni ezingasebenzanga kakuhle. Yiza nesicwangciso nohlolo lwakho kwindibano yocweyo elandelayo.
4. Yiza nemizekelo okanye iifoto zemisebenzi eyenziwe ngabafundi.

Uhlolo

Gcwalisa iFomu yoHlolo.

APPENDIX A: TERM 1 WEEKLY CONTENT SUMMARY (WEEKS 6–9)

Term 1: Activity Plan

Week 6				
CONTENT AREA: PATTERNS, FUNCTIONS and ALGEBRA				
TOPIC: Geometric patterns				
INTRODUCE NEW KNOWLEDGE: Identify patterns, copy patterns, complete patterns, introduce number 3, sequencing numbers 1–3. Making groups the same.				
PRACTISE: Oral counting 1–5, counting objects 1–5, number concept 1 and 2, circle, square, big and small, forwards and backwards				
Whole class activities		**Teacher-guided activity**	**Workstation activities**	
Day 1	Introduce number 3 number frieze story.	Play a movement game using symbols 1 and 2. Match and order dot picture/number cards 1–3. Simple pattern using counters. Discuss the pattern, use counters to copy the pattern. Problem solving 1–3. Making groups the same.	Activity 1	Frame a picture using pattern and draw three objects.
Day 2	Uses different sized and coloured circles to make simple patterns. Discuss patterns (repetition, differences, similarities).		Activity 2	Fingerprint counting.
			Activity 3	Pattern cards using counters and sticks.
Day 3	Body percussion patterns and problem solving.		Activity 4	Template with playdough – make 3.
Day 4	Using big and small circles and objects to make simple patterns. Identify patterns in classroom.			
Day 5	Problem solving 1–3. Making groups the same.			
Week 7				
CONTENT AREA: SPACE and SHAPE (GEOMETRY)				
TOPIC: Recognise, identify and name 2-D shapes: triangle; describe and compare 3-D objects and 2-D shapes: triangles; sort 2-D shapes; figure ground; symmetry				
INTRODUCE NEW KNOWLEDGE: Triangle; figure ground; position (in front and behind); oral counting 1–10				
PRACTISE: Oral counting 1–10, sequencing number 1–3, counting objects 1–5, reinforce number concept 1–3, what number before/after, circle, square, symmetry, big and small				
Whole class activities		**Teacher-guided activity**	**Workstation activities**	
Day 1	Introduce triangle and its properties.	Oral counting. Touch and count using number towers 1–3 (Unifix blocks). One-to-one correspondence. Properties of a triangle (2-D). Sort and compare 3-D objects and 2-D shapes into two groups, one of triangles and one not triangles.	Activity 1	Triangle activity – cut and decorate four triangles.
Day 2	Identify triangle shapes in *Poster Book*, problem solving.		Activity 2	Butterfly prints – symmetry.
			Activity 3	Shape person – use pre-cut shapes.
Day 3	In front of and behind; midline crossing.		Activity 4	Shape puzzles – (minimum six pieces).
Day 4	Compare biggest and smallest. Bigger and smaller.			
Day 5	Symmetry.			

ISINGENISO A: IKOTA 1 ISISHWANKATHELO SOMXHOKO WEVEKI NEVEKI (IIVEKI 6–9)

Ikota 1: Isicwangciso semiSebenzi

Iveki 6			
INKALO YOMXHOLO: IIPATENi, IIFANSHINI neALJIBHRA			
ISIHLOKO: Iipateni zejiyometri			
YAZISA ULWAZI OLUTSHA: Yalatha iipateni, khuphela ipateni, gqibezela ipateni, yazisa inani 3, landelelanisa amanani 1–3. Ukwenza amaqela afane.			
ZIQHELISE: Ukubala ngomlomo, ukubala izinto 1-5, ingqikelelo yamanani u1 no2, isangqa, isikwere, khulu no-ncinci, phambili no-mva			
Imisebenzi yeklasi yonke		**Umsebenzi okhokelwa ngutitshala**	**Imisebenzi yesitishi sokusebenzela**
Usuku 1	Yazisa ibali lefrizi yenani elingu3.	Dlala umdlalo wentshukumo usebenzisa iisimboli u1 no2.	**Umsebenzi 1** Freyima umfanekiso usebenzisa ipateni uze uzobe izinto ezintathu.
Usuku 2	Sebenzisa izangqa ezahlukileyo ngobukhulu nangemibala ukwenza ipateni elula. Xoxa ngeepateni (uphindaphindo, umahluko, ukufana).	Tshatisa uze ulandelelanise umfanekiso wamakhadi amachokoza/amanani 1–3.	**Umsebenzi 2** Ukubala ngophawu lweminwe. **Umsebenzi 3** Amakhadi eepateni usebenzisa izixhobo zokubala kunye namakhuni.
Usuku 3	Iipateni zokubetha umzimba nokusombulula iingxaki.	Ipateni elula usebenzisa izixhobo zokubala. Xoxa ngepateni, sebenzisa izixhobo zokubala ukukhuphela ipateni.	**Umsebenzi 4** Ithempleyithi ngentlama yokudlala – wenze u3.
Usuku 4	Sebenzisa izangqa ezincinci nezinkulu kunye nezinto ukwenza iipateni ezilula. Yalatha iipateni eklasini.	Ukusombulula iingxaki 1–3. Ukwenza amaqela afane.	
Usuku 5	Ukusombulula iingxaki 1–3. Ukwenza amaqela afane.		
Iveki 7			
INKALO YOMXHOLO: ISITHUBA neMILO (IJIYOMETRI)			
ISIHLOKO: Nakana, yalatha ubize amagama eemilo ezingu2-D: unxantathu; chaza uthelekise izinto ezingu3-D neemilo ezingu2-D; ukuqondwa komgangatho; isimetri			
YAZISA ULWAZI OLUTSHA: Unxantathu; ukuqondwa komgangatho, indawo (ngaphambili no-ngasemva); ukubala ngomlomo 1–10			
ZIQHELISE: Ukubala ngomlomo 1–10, ukulandelelanisa amanani 1–3, ukubala izinto 1–5, ukubethelela ingqikelelo yamanani 1–3, leliphi inani eliphambi/elisemva, isangqa, isikwere, ulinganomacala, khulu no-ncinci			
Imisebenzi yeklasi yonke		**Umsebenzi okhokelwa ngutitshala**	**Imisebenzi yesitishi sokusebenzela**
Usuku 1	Yazisa unxantathu neempawu zakhe.	Ukubala ngomlomo.	**Umsebenzi 1** Umsebenzi kanxantathu – sika uze uhombise oonxantathu abane.
Usuku 2	Yalatha imilo kanxantathu kwi*Ncwadi yeePowusta*, ukusombulula iingxaki.	Ukuchukumisa nokubala usebenzisa iithawa zamanani 1–3 (iibhloko ze*Unifix*).	**Umsebenzi 2** Imizobo yamabhabhathane – isimetri.
Usuku 3	Ngaphambi kwe- kunye no-ngasemva; ukunqumla embindini.	Ukuhambelana kwenye nenye. Iimpawu zikanxantathu (2-D).	**Umsebenzi 3** Imilo yomntu – sebenzisa iimilo ezisele zisikiwe. **Umsebenzi 4** Iiphazili zemilo – (amaqhekeza amathandathu ubuncinane).
Usuku 4	Thelekisa eyona inkulu neyona incinci. Eyona inkulu kunye incinci.	Hlela uze uthelekise izinto ezingu3-D neemilo ezingu2-D zibe ngamaqela amabini, elinye loonxantathu nelinye elingengonxantathu.	
Usuku 5	Isimetri		

Week 8		
CONTENT AREA: MEASUREMENT		
TOPIC: Time: day and night; Length: compare and order objects to describe height **INTRODUCE NEW KNOWLEDGE:** Sequencing day and night, light and dark; height chart; position (on, under, on top, below, next to, between); counting backwards 5–1 **PRACTISE:** Oral counting 1–10, counting backwards from 5, sequencing numbers 1–3, counting objects 1–5, reinforce number concept 1–3, patterns		
Whole class activities	**Teacher-guided activity**	**Workstation activities**
Day 1 Day and night; light and dark.	Routine introduction.	**Activity 1** Day and night activity – cutting out pictures.
Day 2 Introduce height chart; position vocabulary.	Day and night; dark and light activities:	**Activity 2** Draw from shortest to tallest.
Day 3 Height chart. Sorting day and night everyday objects.	- blanket - activity cards.	**Activity 3** Paste shapes from biggest to smallest. **Activity 4** Day/night matching cards.
Day 4 Poster – Day and night. Positional vocabulary: on, under, below and on top.	Day and night story and sequencing. Position (on, under, below, on top, next to, between).	
Day 5 Compare heights. Movement-positions.	Pattern (animals). Height chart.	
Week 9		
CONTENT AREA: NUMBERS, OPERATIONS and RELATIONSHIPS		
TOPIC: Describe, order and compare numbers; estimation; problem-solving techniques; using numbers in familiar contexts; position **INTRODUCE NEW KNOWLEDGE:** Estimation, numbers in familiar contexts, one more, one less, position (up/down) **PRACTISE:** Oral counting 1–10, counting backwards from 5, sequencing numbers 1–3, counting objects 1–5, number concept 1–3, problem-solving techniques. Circle, square and triangle.		
Whole class activities	**Teacher-guided activity**	**Workstation activities**
Day 1 Describe and order numbers 1–3.	Oral counting.	**Activity 1** Playdough making 1–3 objects.
Day 2 Matching number representations 1–3. Estimation.	One-to-one correspondence. Describe and order numbers 1–3.	**Activity 2** Draw pictures 1–3 in shapes.
Day 3 Counting – one more/one less. Position: up and down.	Estimation. Shake and break.	**Activity 3** Pasting. Picture with three stars, two trees, one moon. **Activity 4** Puzzles (minimum six piece).
Day 4 Problem solving (more/less). Poster 1.		
Day 5 Using number in familiar context: How old are you?		

Iveki 8		
INKALO YOMXHOLO: UMLINGANISELO		
ISIHLOKO: Ixesha: imini nobusuku; Ubude: thelekisa uze uhlele izinto ukuchaza umphakamo		
YAZISA ULWAZI OLUTSHA: Ukulandelelanisa imini nobusuku, ukukhanya nobumnyama; itshati yobude (umphakamo); indawo (phezu, phantsi, ngaphezu kwe-, ngezantsi, ecaleni kwe-, phakathi); ukubala ubuyela umva 5–1		
ZIQHELISE: Ukubala ngomlomo 1–10, ukubala ubuyela umva usuka ku5, ukulandelelanisa amanani 1–3, ukubala izinto 1–5, ukubethelela kwingikelelo yamanani 1–3, iipateni		
Imisebenzi yeklasi yonke	**Umsebenzi okhokelwa ngutitshala**	**Imisebenzi yesitishi sokusebenzela**
Usuku 1 Imini nobusuku; ukukhanya nobumnyama.	Ukwaziswa kwesiqhelo.	**Umsebenzi 1** Umsebenzi wemini nobusuku – ukusika imifanekiso.
Usuku 2 Yazisa itshati yobude; isigama sendawo.	Imini nobusuku; imisebenzi yobumnyama nokukhanya:	**Umsebenzi 2** Zoba ukusuka koyena umfutshane ukuya koyena mde.
Usuku 3 Itshati yobude. Ukuhlela imini nobusuku ngezinto zemihla ngemihla.	- ingubo - amakhadi omsebenzi.	**Umsebenzi 3** Ncamathisela iimilo ukusuka kweyona inkulu ukuya kweyona incinci.
Usuku 4 Ipowusta – imini nobusuku. Isigama sendawo; phezu, phantsi, ngaphantsi, ngaphezu kwe-.	Ibali lemini nobusuku kunye nolandelelwano. Indawo (phezu, phantsi, ngaphantsi, ngaphezulu, ecaleni kwe-, phakathi).	**Umsebenzi 4** Amakhadi okutshatisa imini/ubusuku.
Usuku 5 Thelekisa imiphakamo. Iindawo zeentshukumo.	Ipateni (izilwanyana). Itshathi yobude.	
Iveki 9		
INKALO YOMXHOLO: AMANANI, IIOPAREYSHINI noLWALAMANO		
ISIHLOKO: Ukuchaza, ukulandelelanisa nokuthelekisa amanani; ukuqikelela; amacebo okusombulula iingxaki; ukusebenzisa amanani kwimixholo eqhelekileyo; indawo		
YAZISA ULWAZI OLUTSHA: Uqikelelo, amanani kwimixholo yesiqhelo, enye ngaphezulu, enye ngaphantsi, indawo (phezulu/ezantsi)		
ZIQHELISE: Ukubala ngmlomo 1–10, ukubala ubuyela umva ukusuka ku5, ukulandelelanisa amanani 1–3, ukubala izinto 1–5, ingqikelelo yamanani 1–3, amacebo okusombulula iingxaki. Isangqa, isikwere nonxantathu.		
Imisebenzi yeklasi yonke	**Umsebenzi okhokelwa ngutitshala**	**Imisebenzi yesitishi sokusebenzela**
Usuku 1 Chaza uze ulandelelanise amanani 1–3.	Ukubala ngomlomo.	**Umsebenzi 1** Ukwenza izinto 1–3 ngentlama yokudlala.
Usuku 2 Tshatisa ukumelwa kwamanani 1–3. Uqikelelo.	Ukuhambelana kwenye nenye Chaza uze ulandelelanise amanani 1–3.	**Umsebenzi 2** Zoba imifanekiso 1–3 ngeemilo.
Usuku 3 Ukubala – enye ngaphezulu/enye ngaphantsi. Indawo: phezulu nase-zantsi.	Uqikelelo. Hlukuhla uze uchithe.	**Umsebenzi 3** Ukuncamathisela. Umfanekiso oneenkwenkwezi ezintathu, imithi emibini, inyanga enye.
Usuku 4 Ukusombulula iingxaki (ngephezu/ngezantsi). IPowusta 1.		**Umsebenzi 4** Iiphazili (amaqhezu amathandathu ubuncinane).
Usuku 5 Ukusebenzisa inani kumxholo oqhelekileyo: Uneminyaka emingaphi?		

Workshop 3 Evaluation

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 3

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?

    _____
    _____
    _____
    _____