GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

GGT 2030
GROWING GAUTENG TOGETHER

Xitsonga/English

Nongonoko wa Antswiso wa Matematiki wa Giredi ya V
Grade R Mathematics Improvement Programme

Ndzetelavutivi wa 2 ● Workshop 2
Buku ya Ntirho ya Vatekaxiave ● Participant's Workbook

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

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

The Grade R Mathematics and Language Improvement Project is managed by **JET Education Services** with **UCT's Schools Development Unit** and **Wordworks** as technical partners.

The **Schools Development Unit** (SDU) at the **University of Cape Town** (UCT) is the mathematics technical partner to the Grade R Mathematics and Language Improvement Project. The SDU is a unit within UCT's School of Education that focuses on teachers' professional development in Mathematics, Science, Literacy/Language and Life Skills from Grade R to Grade 12. The SDU offers teacher qualifications and approved UCT short courses, school-based work, materials development and research to support teaching and learning in all South African contexts.

ACKNOWLEDGEMENTS
Special thanks to:

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

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Phurojeke ya Antswiso wa Matematiki na Tindzimi ya Giredi ya V i matshalatshala ya **Ndzawulo ya Dyondzo ya Gauteng (Gauteng Department of Education)** na mutirhisaninkulu wa yona, **Gauteng Education Development Trust**.

Nhluvukiso na vuhumelerisi bya swipfuno swa vuleteri na swa le kamareni ro dyondzela swa Phurojeke ya Antswiso wa Matematiki na Tindzimi ya Giredi ya V swi endliwile swi koteka hi timali ta tiphurojeke to hananiwa kusuka eka **United States Agency for International Development** na **Zenex Foundation**.

Phurojeke ya Antswiso wa Matematiki na Tindzimi ya Giredi ya V yi fambisiwa hi **JET Education Services** na **Schools Development Unit** ya **UCT** na **Wordworks** tanihi vatirhisani va xithekiniki.

Schools Development Unit (SDU) leyi nga eka **University of Cape Town** (UCT) i mutirhisani wa xithekiniki wa matematiki eka Phurojeke ya Antswiso wa Matematiki na Tindzimi ya Giredi ya V. SDU i yuniti leyi kumekaka eka School of Education ya le UCT leyi yi kongomisaka eka nhluvukiso wa xiphurofexinali wa vadyondzisi eka Matematiki, Sayense, Litheresi/Ririmi na Swikili swa Vutomi kusuka eka Giredi ya V kufika eka Giredi ya 12. SDU yi nyika mithwaso ya vudyondzisi na tikhoso to koma ta UCT leti pfumeleriweke, ntirho lowu kumekaka exikolweni, nhluvukiso wa timatheriyali na ndzavisiso ku seketela madyondziselo na madyondzelo eka mivangu ya Afrika-Dzonga hinkwayo.

SWIKHENSO

Ku khensa ko hlawuleka eka:

- Vakulukumba va Ndzawulotsongo ya Kharikhulamu, Dyondzo ya Vadyondzisi na Dyondzo yo Hlawuleka ta Ndzawulo ya Dyondzo ya Gauteng eka vuhoxaxandla bya vona ku fambelanisa matheriyali wa hina.
- Vakulukumba na vadyondzisi va Western Cape Education Department (WCED) eka vuhoxaxandla bya vona eka nsimeko lowu humeleleke wa Grade R Mathematics Programme (R-Maths) eKapa-Vupeladyambu exikarhi ka 2016 na 2019.
- Xipano xo tsala xa *R-Maths*: Vatirhi na vatsundzuxi va SDU.

Ku vumbiwa ka nongoti na malawulelo ya nongonoko: Cally Kuhne na Tholisa Matheza
Vuhundzuluxeri na malawulelo ya phurojeke ya vukandziyisi: Arabella Koopman
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Overview

Purpose

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

The purpose of this workshop is to assist teachers to implement the Maths Programme in their classrooms. The focus of this workshop is Space and Shape (Geometry). Participants will strengthen their knowledge and understanding of teaching and learning in this Content Area, prepare for teaching Space and Shape (Geometry) activities in their classrooms and reflect on the guiding principles that inform teaching.

Learning outcomes

- To reflect on the implementation of Term 1 Weeks 1–2
- To explore strategies to support teaching maths in Grade R (e.g. problem solving, investigation, exploration, questioning, critical thinking, active listening, observation)
- To engage with the Maths Programme content of Term 1 Weeks 3–5 (Space and Shape (Geometry))
- To apply the Maths Programme principles in weekly planning

Workshop content

- Opening and reflection (1 hour)
- Session 1: Content overview (1 hour)

TEA

- Session 2: Space and Shape (Geometry) (2 hours)

LUNCH

- Session 3: Planning for teaching (2 hours)

Nkatsakanyo

Xikongomelo

Lowu i wa vumbirhi wa khumembirhi ya miletelavutivi ya Nongonoko wa Antswiso wa Matematiki wa Giredi ya V, leyi yi vumbaka xiphemu xa Phurojeke ya Antswiso wa Matematiki na Tindzimi ya Giredi ya V ya Ndzawulo ya Dyondzo ya Gauteng (Gauteng Department of Education) (GDE).

Xikongomelo xa ndzetelavutivi lowu i ku pfuna vadyondzisi ku tirhisa Nongonoko wa Matematiki etikamareni to dyondzela ta vona. Nkongomo wa ndzetelavutivi lowu i Ndhawu na Xivumbeko (Jometiri). Vatekaxiave va ta tiyisa vutivi na ntwisiso wa vona wa madyondziselo na madyondzelo eka Xiyenge xa Vundzeni, va lulamisela ku dyondzisa migingiriko ya Ndhawu na Xivumbeko (Jometiri) etikamareni to dyondzela ta vona na ku ehleketisisa hi mayelana na milawu yo letela leyi yi letelaka madyondziselo.

Mivuyelo ya dyondzo

- Ku ehleketisisa hi matirhelo ya Mavhiki ya 1–2 ya Kotara ya 1
- Ku valanga maqhinga yo seketela ku dyondzisa matematiki eka Giredi ya V (xik. ku ololoxa swiphiqo, vulavisisi, mbalango, ku vutisa, maehleketelelo ya vukhensivusoli, ku yingela ko gingirika, nxiyaxiyo)
- Ku tirhana na vundzeni bya Nongonoko wa Matematiki wa Mavhiki ya 3–5 ya Kotara ya 1 (Ndhawu na Xivumbeko (Jometiri))
- Ku tirhisa milawu ya Nongonoko wa Matematiki eka nkunguhato wa vhiki na vhiki

Vundzeni bya ndzetelavutivi

- Ku pfula na ku ehleketisisa (1 ya awara)
- Sexini ya 1: Nkatsakanyo wa vundzeni (1 ya awara)

TIYA

- Sexini ya 2: Ndhawu na Xivumbeko (Jometiri) (2 wa tiawara)

LANCI

- Sexini ya 3: Nkunguhato wa ku dyondzisa (2 wa tiawara)

Opening and reflection **1 hour**

In your Workshop 1 *Take back to school* task you were asked to complete several activities. We would like you to spend a few minutes reflecting on your progress so far.

In your groups, think about your maths teaching over the past two weeks and how successfully you have implemented Term 1 Weeks 1–2.

 **Activity 1**

In your group, discuss your successes and challenges with implementing Term 1 Weeks 1–2 of the Maths Programme. Allow each person to have a turn to present their reflections.

1. Briefly describe how you organised your classroom and how you prepared for teaching these two weeks.

_____
_____
_____

2. Discuss what worked well and what you found difficult to implement. Does anyone have any helpful suggestions?

_____
_____
_____

3. Share how and when you applied the guiding principles of teaching in your daily programme Mathematics focus time?

_____
_____
_____

Ku pfula na ku ehleketisisa

1 ya awara

Eka *Xintirhwana xo tlhelela na xona exikolweni* xa Ndzetelavutivi wa 1 u komberiwile ku hetisa migingiriko yo talanyana. Hi tsakela ku teka timinete tingaritingani ku ehleketisisa hi ndzima ya wena leyi khatsiweke kufika sweswi.

Emitlaweni ya n'wina, ehleketani hi mayelana na madyondziselo ya n'wina ya matematiki eka mavhiki mambirhi lama nga hundza na hilaha mi humeleleke hakona ku tirhana na Mavhiki ya 1–2 ya Kotara ya 1.

Nghingiriko wa 1

Entlaweni wa n'wina, kanelani ku humelela na mitlhontlho ya n'wina hi ku tirhisa Mavhiki ya 1–2 ya Kotara ya 1 ya Nongonoko wa Matematiki. Pfumelela munhu un'wana na un'wana ku va na nkarhi wa ku andlala ku ehleketisisa ka yena.

1. Hlamusela hi ku komisa hilaha u lulamiseke hakona kamara ro dyondzela ra wena na hilaha u lulamiseke madyondziselo ya wena eka mavhiki lamambirhi.

_____
_____
_____

2. Kanelani hi leswi swi tirheke kahle na leswi mi swi kumeke swi tika ku swi tirhisa. Xana ku na munhu wihi kumbe wihi a nga na swiringanyeto swo pfuna?

_____
_____
_____

3. Avelanani hilaha u tirhiseke hakona na nkarhi lowu u tirhiseke hawona milawu yo letela madyondziselo eka nkarhi wa wena wa nkongomo wa Matematiki wa nongonoko wa siku na siku?

_____
_____
_____

Video 1

Watch the video of the teacher-guided activity which involves a small group of learners.

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.

_____

_____

_____

In Workshop 1 we discussed the eight guiding principles of teaching maths in Grade R. Activity 2 requires that you to match each of the eight principles with two statements that best describe it.

Activity 2

1. Each group has been given an envelope containing a number of strips. Find the eight guiding principles of teaching and place them in a row on your table.
2. Discuss each of the statements and decide with which principle it fits best. Place the statement under this principle.

Vhidiyo ya 1

Hlalelani vhidiyo ya nghingiriko lowu leteriweke hi mudyondzisi lowu wu khumbaka ntlawa lowutsongo wa vadyondzi.

Xana u ehleketa leswaku i yini xikongomelo xa nghingiriko lowu? Kongomisa miehleketo swinenenene eka hilaha mudyondzisi a seketelaka vadyondzi hi swivutiso na hilaha a xiyaxiyaka hakona mudyondzi un'wana na un'wana.

_____

_____

_____

Eka Ndzetelavutivi wa 1 hi kanele hi nhungu wa milawu yo letela ya ku dyondzisa matematiki eka Giredi ya V. Nghingiriko wa 2 wu lava leswaku u pananisa wun'wana na wun'wana wa milawu leya nhungu na switatimente swimbirhi leswi swi wu hlamuselaka kahle.

Nghingiriko wa 2

1. Ntlawa wun'wana na wun'wana wu nyikiwile mvhilopo leyi nga na nhlayo yo karhi ya switiripi. Kumani milawu yo letela leya nhungu ya madyondziselo kutani mi yi veketela hi ku landzelela etafuleni ra n'wina.
2. Kanelani hi xin'wana na xin'wana xa switatimente leswi kutani mi teka xiboho leswaku xana i nawu wihi xi fambelanaka na wona swinene. Vekelani xitatimente lexi ehansi ka nawu lowu.

Session 1: Content overview **1 hour**

Term 1 Content overview: Space and Shape (Geometry)

The content for teaching and learning in Weeks 3–5 focuses mainly on the CAPS Content Area, Space and Shape (Geometry). This content involves more than teaching learners to identify geometric shapes. Their understanding of space and shape depends to a large extent on whether they understand and can use position vocabulary to describe the location of an object (e.g. on, in, next to, behind, in front of). Learners also need to be able to see objects from different positions or views (e.g. from the top, from the bottom, turned sideways, flipped upside down).

Read the content overview for Space and Shape (Geometry) on pages 126–131 of the *Concept Guide*. It provides an overview of the Maths Programme content to be taught in each term of Grade R.

- The text in blue is the content from the Grade R CAPS for Mathematics.
- The text descriptions and content in black have been added to extend and build on CAPS.
- The topics are sequenced to show a developmental progression from one topic to another.

 **Activity 3**

Look at 3.1–3.4 of the content overview for Space and Shape (Geometry) on pages 126–131 of the *Concept Guide*. In your group, do the following:

1. Look at each topic and discuss the content and developmental progression across the four terms.

_____
_____
_____
_____

Sexini ya 1: Nkatsakanyo wa vundzeni **1 ya awara**

Nkatsakanyo wa vundzeni wa Kotara ya 1: Ndhawu na Xivumbeko (Jometiri)

Vundzeni bya madyondziselo na madyondzelo eka Mavhiki ya 3–5 byi kongomisa ngopfungopfu eka Xiyenge xa Vundzeni xa XIPHOKHAMA, Ndhawu na Xivumbeko (Jometiri). Vundzeni lebyi byi khumba swo tlula ku dyondzisa vadyondzi ku kuma swivumbeko swa jometiri. Ntwisiso wa vona wa ndhawu na xivumbeko wu leteriwa hi mpimo lowukulu hi loko va twisisa na ku kota ku tirhisa ntivomarito wa xiyimo ku hlamusela hi ku hlawulekisa ndhawu ya nchumu (xik. ehenhla, endzeni, ekusuhi na, endzhaku ka, emahlweni ka). Vadyondzi va tlhela va fanele ku vona michumu kusuka eka swiyimo swo hambanahambana kumbe mavonelo (xik. kusuka ehenhla, kusuka ehansi, leyi hundzuluxeriweke ematlhelo, leyi yimisiweke hi nhloko).

Hlaya nkatsakanyo wa vundzeni wa Ndhawu na Xivumbeko (Jometiri) eka tipheji ta 126–131 ta *Xiletelo xa Minongoti*. Wu nyika nkatsakanyo wa vundzeni bya Nongonoko wa Matematiki lebyi faneleke ku dyondzisiwa eka kotara yin'wana na yin'wana eka Giredi ya V.

- Xitsariwa lexi nga hi muhlovo wa wasi i vundzeni kusuka eka XIPHOKHAMA xa Matematiki wa Giredi ya V.
- Tinhlamuselo ta xitsariwa na vundzeni leswi nga hi muhlovo wa ntima ti engeteriwile ku ndlandlamukisa na ku aka ehenhla ka XIPHOKHAMA.
- Tinhlokomhaka ti longoloxiwile ku komba ku ya emahlweni ka nhluvukiso kusuka eka nhlokomhaka yin'we kuya eka yinwana.

Nghingiriko wa 3

Languta 3.1–3.4 ta nkatsakanyo wa vundzeni wa Ndhawu na Xivumbeko (Jometiri) eka tipheji ta 126–131 ta *Xiletelo xa Minongoti*. Entlaweni wa n'wina, endlani leswi landzelaka:

1. Langutani eka nhlokomhaka yin'wana na yin'wana kutani mi kanela vundzeni na ku ya emahlweni ka nhluvukiso eka tikotara leta mune hinkwato.

_____
_____
_____
_____

2. Look at the text in black and discuss what the Maths Programme adds to the content from CAPS.

_____
_____
_____
_____

3. Why do you think that the weighting of Space and Shape (Geometry) is the second highest of the Content Areas in Grade R?

_____
_____
_____
_____

4. How have you approached teaching Space and Shape (Geometry) in your classroom? Give examples of lessons and activities that you have used in the past.

_____
_____
_____
_____

2. Langutani eka xitsariwa lexi nga hi muhlovo wa ntima kutani mi kanela leswi Nongonoko wa Matematiki wu swi engetelaka eka vundzeni byo huma eka XIPHOKHAMA.

_____
_____
_____
_____

3. Hikwalahokayini u ehleketa leswaku ku pima ntikelo wa Ndhawu na Xivumbeko (Jometiri) i xavumbirhi hi vulehelahenhla eka Swiyenge swa Vundzeni eka Giredi ya V?

_____
_____
_____
_____

4. Xana u endle njhani eka madyondziselo ya Ndhawu na Xivumbeko (Jometiri) ekamareni ro dyondzela ra wena? Nyika swikombiso swa tidyondzotsongo na migingiriko leyi u yi tirhiseke eka nkarhi lowu nga hundza.

_____
_____
_____
_____

Session 2: Space and Shape (Geometry) 2 hours

Spatial concepts (30 minutes)

Learners start to learn about spatial concepts such as position, direction, orientation (different views) and perspective as they use their own bodies to explore the relationship between themselves, other people and objects.

 **Activity 4**

The facilitator has set up a simple obstacle course. With a partner take turns to guide each other through the obstacle course. Use positional and directional language to give clear instructions.

Using the *Poster Book* to talk about position and direction

The Maths Programme's *Poster Book* provides opportunities to use real-life contexts to explore concepts. On Poster 9 of the *Poster Book* you can see where Malusi lives in relation to other people and places in his neighbourhood. This poster can be used to stimulate discussion about the position of people and objects in relation to one another and to encourage learners to use and become familiar with the language that describes space, position and direction. Learners link maths to their everyday lives as they discuss and solve problems.

 **Activity 5**

In your group, look at Poster 9 and discuss the following:

1. What position and direction words could you introduce to learners and encourage them to use?

_____
_____
_____

2. What other questions could you ask learners that would help them to learn about position, direction, orientation (views) and perspective?

_____
_____
_____

Refer to pages 172–177 of the *Concept Guide* to read more about space.

Sexini ya 2: Ndhawu na Xivumbeko (Jometiri)

2 wa tiawara

Minongoti ya ndhawu

(30 wa timinete)

Vadyondzi va sungula ku dyondza hi mayelana na minongoti ya ndhawu yo tanihi xiyimo, tlhelo, vonakelo (mavonakelo yo hambanahambana) na mavonelo loko va ri karhi va tirhisa miri ya vona ku valanga vuxaka exikarhi ka vona vini, vanhu van'wana na michumu.

Nghingiriko wa 4

Muhumelerisi u lulamisela ndlela ya xihingakanyo yo olova. Swin'we na mutirhisani cincanani ku letelana ku famba hi ndlela ya xihingakanyo. Tirhisani ririmi ra swiyimo na matlhelo ku nyika swileriso leswi nga erivaleni.

Ku tirhisa *Buku ya Tiphositara* ku vulavula hi mayelana na xiyimo na tlhelo

Buku ya Tiphositara ya Nongonoko wa Matematiki yi nyika swivandlanene swa ku tirhisa mivangu ya swiyimo swa xiviri ku valanga minongoti. Eka Phositara ya 9 ya *Buku ya Tiphositara* u nga kota ku vona laha Malusi a tshamaka kona hi ku yelanisiwa na vanhu van'wana na tindhawu leti nga emugangeni wa ka vona. Phositara leyi yi nga tirhisiwa ku nyanyula nkanelo hi mayelana na xiyimo xa vanhu na michumu hi ku yelanisiwa na yin'wana na ku khutaza vadyondzi ku tirhisa na ku titoloveta ririmi leri ri hlamuselaka hi ku hlawulekisa ndhawu, xiyimo, ndhawu na tlhelo. Vadyondzi va xakelanisa matematiki eka vutomi bya vona bya masiku hinkwawo loko va ri karhi va kanela na ku ololoxa swiphiqo.

Nghingiriko wa 5

Entlaweni wa n'wina, langutani Phositara ya 9 kutani mi kanela leswi landzelaka:

1. Xana i marito wahi ya swiyimo na matlhelo lama u nga ma tirhisaka eka vadyondzi na ku va khutaza ku ma tirhisa?

_____

_____

_____

2. Xana i swivutiso swihi swin'wan leswi u nga swi vutisaka vadyondzi leswi swi nga ta va pfuna ku dyondza hi mayelana na xiyimo, tlhelo, vonakelo (mavonakelo) na mavonelo?

_____

_____

_____

Kongomisa eka tipheji ta 172–177 ta *Xiletelo xa Minongoti* ku hlaya swo tala hi mayelana na ndhawu.

Introducing shapes (1 hour)

In Grade R learners focus on recognising, identifying and naming three-dimensional (3-D) objects and two-dimensional (2-D) shapes.

- 3-D means that an object has three dimensions: length, breadth (width) and height.
- 2-D means that a shape has two dimensions: length and breadth (width).

Recognising, identifying and comparing three-dimensional objects

In Grade R learners explore the properties of everyday objects. They build constructions using recycled household materials such as boxes, cans, tubs, toilet roll inners, balls and so on. They investigate and describe box- and ball-shaped objects. They compare and sort objects and talk about similarities and differences.

 **Video 2**

Watch the video of a teacher talking to learners who are sorting a collection of objects. Listen to how she prompts the learners to explain how they are sorting the objects and how to use the correct terms to describe each object.

Refer to pages 178–181 of the *Concept Guide* to read more about 3-D objects.

Moving from 3-D objects to 2-D shapes

In Grade R, the focus is on the properties of objects and shapes. Learners learn to identify and describe the properties of both objects and shapes.

Ku tivisa swivumbeko (1 ya awara)

Eka Giredi ya V vadyondzi va kongomisa eka ku lemuka, ku kuma na ku vula mavito ya michumu ya matlhelo manharhu (3-D) na swivumbeko swa matlhelo mambirhi (2-D).

- 3-D swi vula leswaku nchumu wu na matlhelo manharhu: vulehi, vuanami (anama) na vulehelahenhla.
- 2-D swi vula leswaku xivumbeko xi na matlhelo mambirhi: vulehi na vuanami (anama).

Ku lemuka, kuma kutani u fananisa michumu ya matlhelo manharhu
Eka Giredi ya V vadyondzi va valanga swihlawulekisi swa michumu ya masiku hinkwawo. Va aka swimakiwa hi ku tirhisa timatheriyali leti vuyelerisiweke ta le kaya to tanihi mabokisi, swikotela, swibavhana, switsondzelelo swa phepha ra le xihambukelweni, tibolo na sweswo sweswo. Va lavisisa na ku hlamusela hi ku hlawulekisa michumu leyi nga na xivumbeko xa bokisi na leyi nga na xivumbeko xa bolo. Va fananisa na ku ava michumu kutani va vulavula hi mayelana na ku fanana na ku hambana.

Vhidiyo ya 2
Hlalelani vhidiyo ya mudyondzisi a ri karhi a vulavula na vadyondzi lava va nga eku aveni ka nhlengelo wa michumu. Yingisela hilaha a tsundzuxaka vadyondzi hakona ku hlamusela hi vutalo hilaha va avaka hakona michumu na hilaha va tirhisaka matheme lama nga lulama ku hlamusela hi ku hlawulekisa nchumu wun'wana na wun'wana.

Kongomisa eka tipheji ta 178–181 ta *Xiletelo xa Minongoti* ku hlaya swo tala hi mayelana na michumu ya 3-D.

Ku famba kusuka eka michumu ya 3-D kufika eka swivumbeko swa 2-D
Eka Giredi ya V, nkongomo wu le ka swihlawulekisi swa michumu na swivumbeko. Vadyondzi va dyondza ku kuma na ku hlawulekisa swihlawulekisi swa havumbirhi bya michumu na swivumbeko.

 **Activity 6**

Explore and describe the properties of a box.

- Place a box on a piece of paper.
- Trace around the base of the box.
- Describe the lines of your drawing.
- Name the shape you have drawn.
- How do you know it's a square/rectangle?
- How many sides does it have?
- How many corners does it have?
- What is the difference between the box and the square/rectangle?

Recognising, describing and comparing two-dimensional shapes

Learners need to observe and discuss a variety of 2-D shapes to find out what the common properties of a particular shape are, e.g. even though all triangles may not look exactly the same, they all have three sides and three corners; all rectangles have four sides regardless of the orientation.

Use the attribute blocks on your table to explore 2-D shapes.

 **Activity 7**

In your group, talk about the shape of the surface of each attribute block.

- Look for a shape that has four corners.
- Use your finger to trace around the shape. What is the shape called?
- Look for a shape that has no straight sides.
- Use your finger to trace around the shape. What is the shape called?
- Look for a shape that has three sides that are exactly the same.

Refer to pages 182–189 of the *Concept Guide* to read more about 2-D shapes.

Nghingiriko wa 6

Valanga na ku hlamusela hi ku hlawulekisa swihlawulekisi swa bokisi.

- Vekela bokisi ehenhla ka xiphemu xa phepha.
- Landzelerisa ku rhendzeleka na tshaku ra bokisi.
- Hlamusela hi ku hlawulekisa tilayini ta xidirowiwa xa wena.
- Vula vito ra xivumbeko lexi u xi diroweke.
- Xana u swi tiva njhani leswaku i xikwere/yinhlamune?
- Xana xi na matlhelo mangani?
- Xana xi na tikhona tingani?
- Xana hi kwihi ku hambana exikarhi ka bokisi na xikwere/yinhlamune?

Lemuka, kuma kutani u fananisa swivumbeko swa matlhelo mambirhi

Vadyondzi va fanele ku xiyaxiya na ku kanela swivumbeko swa 2-D swo hambanahambana ku kumisisa leswaku hi swihi swihlawulekisi swa ntolovelo eka xivumbeko xo karhi, xik. hambiloko tinhlanharhu hinkwato ti nga ha languteka ti fana kwatsa, hinkwato ti na matlhelo manharhu na tikhona tinharhu; tinhlamune hinkwato ti na mune wa matlhelo swi nga ri na mhaka eka vonakelo.

Tirhisa tibuloko ta swihlawulekisi etafuleni ra wena ku valanga swivumbeko swa 2-D.

Nghingiriko wa 7

Entlaweni wa n'wina, vulavulani hi mayelana na xivumbeko xa vuhenhla bya buloko ya swihlawulekisi yin'wana na yin'wana.

- Lavani xivumbeko lexi xi nga na matlhelo ya mune.
- Tirhisa ritiho ra wena ku landzelerisa ku rhendzeleka na xivumbeko lexi. Xana xivumbeko lexi xi vitaniwa yini?
- Lavani xivumbeko lexi xi nga riki na matlhelo yo thwixama.
- Tirhisa ritiho ra wena ku landzelerisa ku rhendzeleka na xivumbeko lexi. Xana xivumbeko lexi xi vitaniwa yini?
- Lavani xivumbeko lexi xi nga na matlhelo manharhu lama ma fanaka kwatsa.

Kongomisa eka tipheji ta 182–189 ta *Xiletelo xa Minongoti* ku hlaya swo tala hi mayelana na swivumbeko swa 2-D.

Symmetry (30 minutes)

An object or shape has symmetry when it can be divided into two equal halves along a central line. Symmetrical patterns can be found on our bodies, in nature, in the built environment and in pictures. Line symmetry divides the shape into two identical parts. The line can be horizontal or vertical.

Refer to pages 188–191 of the *Concept Guide* to read more about symmetry.

The **practice principle:** Learners should have plenty of time to practise new skills and knowledge. When learners have regular practice in what they have already learnt, they become more competent and more confident. Learners enjoy repetition and practice. The Grade R teacher should provide repeated opportunities for learners to practise and improve new skills.

Ndzinganiso (30 wa timinete)

Nchumu kumbe xivumbeko xi na ndzinganiso loko xi nga kota ku avanyisiwa hi tihafu to ringana timbirhi hi le ka ntila wa le xikarhi. Tipatironi ta ndzinganiso ti nga kumeka emirini ya hina, eka ntumbuluko, eka mbangu lowu makiweke na le swifanisweni. Ndzinganiso wa ntila wu avanyisa xivumbeko hi swiphemu swo fana swimbirhi. Ntila lowu wu nga hingakanya kumbe wu thwixamela ehenhla.

Kongomisa eka tipheji ta 181–191 ta *Xiletelo xa Minongoti* ku hlaya hi mayelana na ndzinganiso.

Nawu wa vutitoloveti: Vadyondzi va fanele ku va na nkarhi wo tala wa ku titoloveta swikili na vutivi byintshwa. Loko vadyondzi va kuma vutitoloveti bya nkarhi na nkarhi eka leswi se va swi dyondzeke, va antswa swinene eka swona na ku va na vutitshembi swinene. Vadyondzi va tiphina hi mbuyelelo na vutitoloveti. Mudyondzisi wa Giredi ya V u fanele ku nyika swivandlanene leswi vuyeleriwaka swa vadyondzi ku titoloveta na ku antswisa swikili swintshwa.

Session 3: Planning for teaching **2 hours**

Term 1 Content Summary (Weeks 3–5) **(40 minutes)**

Appendix A: Term 1 Weekly Content Summary (Weeks 3–5) 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.

Read the whole class, teacher-guided and workstation activities sections and complete Activity 8.

 **Activity 8**

Look at Appendix A: Term 1 Weekly Content Summary (Weeks 3–5). Answer the questions.

Questions	Week 3	Week 4	Week 5
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?			

Sexini ya 3: Nkunguhato wa ku dyondzisa 2 wa tiawara

Nkomiso wa Vundzeni wa Kotara ya 1 (Mavhiki ya 3–5) (40 wa timinete)

Xiengetelwa xa A: Nkomiso wa Vundzeni wa Vhiki na Vhiki wa Kotara ya 1 (Mavhiki ya 3–5) wu katsakanya Nkongomokulu wa Xiyenge xa Vundzeni wa vhiki rin'wana na rin'wana, tinhlokomhaka leti angarheliwaka, vutivi byintshwa na nkongomo wa vutitoloveti wa vhiki rin'wana na rin'wana, na ku ringanyeta migingiriko ya vhiki ya tlilasi hinkwayo, leyi leteriwaka hi mudyondzisi na ntirho wa ntlawa lowu tshunxekeke.

Hlaya swiyenge swa migingiriko ya tlilasi hinkwayo, migingiriko leyi leteriwaka hi mudyondzisi na swa migingiriko ya le ka xitichi xo tirhela. kutani u hetisa Nghingiriko wa 8.

Nghingiriko wa 8

Languta Xiengetelwa xa A: Nkomiso wa Vundzeni wa Vhiki na Vhiki wa Kotara ya 1 (Mavhiki ya 3–5). Hlamula swivutiso leswi.

Swivutiso	Vhiki ra 3	Vhiki ra 4	Vhiki ra 5
Xana hi wihi Nkongomo wa Xiyenge xa Vundzeni wa vhiki leri?			
Xana hi yihi minongotikulu leyi vadyondzi va nga ta va va ri eku yi dyondzeni?			
Xana i vutivi byintshwa muni byi tivisiwaka?			
Xana i swikili swihi swi vaka swi titolovetiwa?			

Activity Guide: Term 1: Weeks 3, 4 and 5 (60 minutes)

 **Video 3**

Watch the video of learners discussing a poster.

1. Make a note of the questions and maths problems that the teacher presents to the learners during the poster discussion.

_____
_____
_____

2. Write down other questions that the teacher could have asked.

_____
_____
_____

Refer to Weeks 3, 4 and 5 in *Activity Guide: Term 1*. Complete Activity 9 in your group.

 **Activity 9**

1. Find Weeks 3, 4 and 5 in *Activity Guide: Term 1*. Answer the questions.

- What is the Content Area Focus for each week?
- What topics and new knowledge are taught in each week?
- How does the 'Practise' content link to the previous week?
- What do you need to get ready before teaching each week?
- Read the whole class activities and small group activities.
- Discuss in your small group how you will plan and organise your class for these three weeks of teaching.

2. Refer to Appendix A: Term 1 Weekly Content Summary (Weeks 3–5). Match the whole class and small group activities in Weeks 3, 4 and 5 of the *Activity Guide: Term 1* to the Content Summary for each week.

Xiletelo xa Migingiriko: Kotara ya 1: Mavhiki ya 3, 4 na 5 (60 wa timinete)

Vhidiyo ya 3

Hlalelani vhidiyo ya vadyondzi va ri karhi va kanela phositara.

1. Endla noti ya swivutiso na swiphiqo swa matematiki leswi mudyondzisi a swi nyikaka vadyondzi hi nkarhi wa nkanelo wa phositara.

_____
_____
_____

2. Tsala swivutiso swin'wana leswi mudyondzisi a nga vaka a swi vutisile.

_____
_____
_____

Kongomisa eka Mavhiki ya 3, 4 na 5 eka *Xiletelo xa Migingiriko: Kotara ya 1*. Hetisa Nghingiriko wa 9 eka ntlawa wa wena.

Nghingiriko wa 9

1. Kongomisa eka Mavhiki ya 3, 4 na 5 eka *Xiletelo xa Migingiriko: Kotara ya 1*. Hlamula swivutiso leswi.

- Xana hi wihi Nkongomo wa Xiyenge xa Vundzeni wa vhiki rin'wana na rin'wana?
- Xana i tinhlokomhaka tihi na vutivi byintshwa byihi byi dyondzisiwaka eka vhiki rin'wana na rin'wana?
- Xana vundzeni bya 'Titoloveti' byi xakelanisa njhani na bya vhiki leri nga hundza?
- Xana hi swihi leswi u faneleke ku swi lulamisa u nga si dyondzisa vhiki rin'wana na rin'wana?
- Hlaya migingiriko ya tlilasi hinkwayo na migingiriko ya mitlawa leyitsongo.
- Kanelani entlaweni wa n'wina lowutsongo hilaha mi nga ta kunguhata na ku lulamisa tlilasi ya n'wina hakona eka mavhiki lamanharhu ya ku dyondzisa.

2. Kongomisa eka Xiengetelwa xa A: Nkomiso wa Vundzeni wa Vhiki na Vhiki wa Kotara ya 1 (Mavhiki ya 3–5) Pananisa migingiriko ya tlilasi hinkwayo na migingiriko ya mitlawa leyitsongo eka Mavhiki ya 3, 4 na 5 ya *Xiletelo xa Migingiriko: Kotara ya 1* eka Nkomiso wa Vundzeni wa vhiki rin'wana na rin'wana.

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.

Closing activities **(20 minutes)**

Activity 10

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

 Tsundzuka leswaku makambelelo ya Giredi ya V i ya nkamafundza na leswaku ma ya emahlweni. Hi fanele ku xiyaxiya vadyondzi esikwini hinkwaro, endzeni na le handle ka kamara ro dyondzela. Mfungho wa tihlo wu hi tsundzuxa leswaku hi fanele ku xiyaxiya vadyondzi loko va ri eku tirheni, naswona hi fanele ku yingisela hi vukheta loko va ri eku vulavuleni na hina na tintangha ta vona.

Nongonoko wa Matematiki wu endliwile hi mayelana na ku cincana ka mitlawa leyitsongo evhikini naswona mudyondzisi u kongomisa miehleketo eka ntlawa wun'we hi siku, a hlalela na ku yingisela loko vadyondzi va ri karhi va hetisa swintirhwana swo karhi. Nkarhi lowu wu nyika mudyondzisi nkarhi wa ku xiyaxiya hi vukheta mudyondzi un'wana na un'wana na ku hlengeleta vuxokoxoko hi mayelana na ku ya emahlweni ka yena.

Languta buloko leyi dzwihatiweke emakumu ka nghingiriko lowu leteriweke hi mudyondzisi: '**Kamba leswaku vadyondzi va kota ku'**. Mudyondzisi u endla noti ya miehleketo ya mudyondzi un'wana na un'wana naswona xikan'wekan'we loko vadyondzi va humile eka siku rolero u tsala mixiyaxiyo ya yena eka buku ya mixiyaxiyo leyi yi nga na tinotsi ta mudyondzi un'wana na un'wana.

Migingiriko yo pfala (20 wa timinete)

 **Nghingiriko wa 10**

Tidyondzotsongo leti dyondziweke: Ehleketa hi mayelana na leswi u swi dyondzeke hi nkarhi wa ndzetelavutivi kutani u hetisa tafula leri.

Swilo leswi ndzi swi endlaka leswi swi tirhaka kahle swinene	Mianakanyo yintshwa leyi ndzi tsakelaka ku yi ringeta

Take back to school task

1. Read the *Concept Guide* pages that were referred to during this workshop.
2. Prepare a Space and Shape (Geometry) maths area. Take a photograph of it and bring it to the next workshop.
3. Use *Activity Guide: Term 1* to plan and implement Weeks 3–5 of the Maths Programme. When planning, think about how the guiding principles will inform your planning and teaching:

   - How will you find out what learners already know and understand? (**level principle**)

   - How will you build on the prior knowledge that learners bring from home? (**context principle**)

   - How will you ensure that the planned activities are meaningful for learners? (**context principle**)

   - How will you build active listening and speaking into your planned activities? (**interaction principle**)
4. Write a reflection of what worked well and what did not work so well. Bring your reflection notes and some examples of work that the learners did to the next workshop.

Evaluation

Complete the Evaluation Form.

Xintirhwana xo tlhelela na xona exikolweni

1. Hlaya tipheji ta *Xiletelo xa Minongoti* leti ku kongomisiweke eka tona hi nkarhi wa ndzetelavutivi.
2. Lulamisa ndhawu ya matematiki ya Ndhawu na Xivumbeko (Jometiri). Teka xinepe xa yona kutani u ta na xona eka ndzetelavutivi lowu landzelaka.
3. Tirhisa *Xiletelo xa Migingiriko: Kotara ya 1* ku kunguhata na ku tirhisa Nongonoko wa Matematiki eka Mavhiki ya 3–5. Loko u ri eku kunguhateni, ehleketa hi mayelana na hilaha milawu yo letela yi nga ta letela nkunguhato wa wena na madyondziselo ya wena hakona:

   - Xana u ta kumisisa njhani leswi se vadyondzi va swi tivaka na ku swi twisisa? (**nawu wa levhele**)

   - Xana u ta aka njhani ehenhla ka vutivi bya nkarhi lowu nga hundza lebyi vadyondzi va taka na byona hi le kaya?

   (**nawu wa mbangu**)

   - Xana u ta tiyisisa njhani leswaku migingiriko leyi kunguhatiweke i ya nkoka eka vadyondzi?

   (**nawu wa mbangu**)

   - Xana u ta aka njhani ku yingisela na ku vulavula ko gingirika eka migingiriko ya wena leyi u yi kunguhateke?

   (**nawu wa n'wangulano**)

4. Tsala ehleketisiso wa leswi swi tirheke kahle swinene na leswi swi nga tirhangiki kahle ngopfu. Tana na tinotsi ta wena ta ehleketisiso na swikombiso swa ntirho lowu vadyondzi va wu endleke eka ndzetelavutivi lowu landzelaka.

Nkambelo

Tatisa Fomo leya Nkambelo.

APPENDIX A: TERM 1 WEEKLY CONTENT SUMMARY (WEEKS 3–5)

Term 1: Activity Plan

<table>
<tr><th colspan="5">Week 3</th></tr>
<tr><td colspan="5">CONTENT AREA: SPACE AND SHAPE (GEOMETRY)</td></tr>
<tr><td colspan="5">TOPIC: Recognise, identify and name 3-D objects; describe, sort and compare 3-D objects (boxes and balls); position, orientation and views: in and out
INTRODUCE NEW KNOWLEDGE: Counting objects 1–5, properties of boxes and balls, objects that roll or slide, position: in and out, big/small, biggest/smallest
PRACTISE: Oral counting 1–5, reinforce number concept (1), sorting</td></tr>
<tr><th colspan="2">Whole class activities</th><th>Teacher-guided activity</th><th colspan="2">Workstation activities</th></tr>
<tr><td>Day 1</td><td>Explore properties of boxes and balls.</td><td rowspan="5">Counting one-to-one correspondence 1–5.
Big and small game.
Properties of boxes and balls.
Compare boxes and balls.
Sort objects that slide and roll.</td><td>Activity 1
Activity 2
Activity 3
Activity 4</td><td rowspan="5">Construct objects with boxes.
Big and small playdough balls – sorting.
Paint prints with boxes or blocks.
Build animal shelters for the farm animals with building blocks.</td></tr>
<tr><td>Day 2</td><td>Compare sizes of boxes and balls.</td></tr>
<tr><td>Day 3</td><td>Explore which can slide, which can roll; big/biggest and small/smallest.</td></tr>
<tr><td>Day 4</td><td>Discuss why objects roll and slide.</td></tr>
<tr><td>Day 5</td><td>Position: in and out.</td></tr>
<tr><th colspan="5">Week 4</th></tr>
<tr><td colspan="5">CONTENT AREA: SPACE AND SHAPE (GEOMETRY)</td></tr>
<tr><td colspan="5">TOPIC: Recognise, identify and name 2-D shapes (circle); compare 3-D objects and 2-D shapes; symmetry
INTRODUCE NEW KNOWLEDGE: Circle, symmetry, introduce number 2
PRACTISE: Oral counting 1–5, counting objects 1–5, number 1</td></tr>
<tr><th colspan="2">Whole class activities</th><th>Teacher-guided activity</th><th colspan="2">Workstation activities</th></tr>
<tr><td>Day 1</td><td>Introduce 2; number frieze story.</td><td rowspan="5">Naming the shape and colour of counters from the Resource Kit.
Circle activity – properties.
Number dot cards, pictures and symbols 1 and 2.</td><td>Activity 1
Activity 2
Activity 3
Activity 4</td><td rowspan="5">Playdough template – make 2.
Circle prints – paint and containers.
‘Plate’ template – cut and paste pictures of food.
Body puzzles.</td></tr>
<tr><td>Day 2</td><td>What is a shape? Introduce the circle.</td></tr>
<tr><td>Day 3</td><td>Find circles in the classroom.</td></tr>
<tr><td>Day 4</td><td>Count different body parts; explore symmetry in their own body.</td></tr>
<tr><td>Day 5</td><td>Circle (use poster) and symmetry in a picture.</td></tr>
</table>

XIENGETELWA XA A: NKOMISO WA VUNDZENI WA VHIKI NA VHIKI WA KOTARA YA 1 (MAVHIKI YA 3–5)

Kotara ya 1: Kungu ra Migingiriko

<table>
<tr><th colspan="5">Vhiki ra 3</th></tr>
<tr><td colspan="5">XIYENGE XA VUNDZENI: NDHAWU NA XIVUMBEKO (JOMETIRI)</td></tr>
<tr><td colspan="5">NHLOKOMHAKA: Lemuka, kuma na ku nyika mavito ya michumu ya 3-D; Hlamusela, ava na ku fananisa michumu ya 3-D (tibolo na mabokisi) ; Xiyimo, vonakelna malangutekelo: endzeni na ehandle.
TIVISA VUTIVI BYINTSHWA: Ku hlayela michumu 1–5, swihlawulekisi swa tibolo na mabokisi, michumu leyi khungulukaka kumbe leyi rhetaka, xiyimo: endzeni na le handle, nkulu/ntsongo, nkulu kutlula hinkwaswo/ntsongo kutlula hinkwaswo
TITOLOVETI: Ku hlayela ka swanomu 1–5, tiyisisa nongoti wa nomboro (1), ku ava</td></tr>
<tr><th colspan="2">Migingiriko ya tlilasi hinkwayo</th><th>Nghingiriko lowu leteriwaka hi mudyondzisi</th><th colspan="2">Migingiriko ya le ka xitichi xo tirhela</th></tr>
<tr><td>Siku ra 1</td><td>Valanga swihlawulekisi swa mabokisi na tibolo.</td><td rowspan="5">Ku hlayela ku yelana ka xin’we-eka-xin’we 1–5.
Ntlangu wa nkulu na ntsongo
Swihlawulekisi swa mabokisi na tibolo.
Fananisa mabokisi na tibolo.
Avani michumu leyi rhetaka na leyi khungulukaka.</td><td rowspan="5">Nghingiriko wa 1
Nghingiriko wa 2
Nghingiriko wa 3
Nghingiriko wa 4</td><td rowspan="5">Aka michumu hi mabokisi.
Tibolo ta vumba byo tlangisa letikulu na letitsongo – ku ava.
Penda swikandziyisiwa hi mabokisi kumbe tibuloko.
Aka swivala swa swiharhi swa le purasini hi tibuloko to aka.</td></tr>
<tr><td>Siku ra 2</td><td>Fananisa tisayizi ta mabokisi na tibolo.</td></tr>
<tr><td>Siku ra 3</td><td>Valanga leswi swi nga rhetaka, leswi swi nga khungulukaka; nkulu/ntsongo na ntsongo/ntsongonyana</td></tr>
<tr><td>Siku ra 4</td><td>Kanelani hikwalahokayini michumu yi khunguluka na ku rheta</td></tr>
<tr><td>Siku ra 5</td><td>Xiyimo: endzeni na ehandle</td></tr>
<tr><th colspan="5">Vhiki ra 4</th></tr>
<tr><td colspan="5">XIYENGE XA VUNDZENI: NDHAWU NA XIVUMBEKO (JOMETIRI)</td></tr>
<tr><td colspan="5">NHLOKOMHAKA: Lemuka, kuma na ku nyika mavito ya swivumbeko swa 2-D (xirhendzevutana); fananisa michumu ya 3-D na swivumbeko swa 2-D; ndzingano
TIVISA VUTIVI BYINTSHWA: Xirhendzevutana, ndzingano, tivisa nomboro ya 2
TITOLOVETI: Ku hlayela ka swanomu 1–5, ku hlayela michumu 1–5, nomboro ya 1</td></tr>
<tr><th colspan="2">Migingiriko ya tlilasi hinkwayo</th><th>Nghingiriko lowu leteriwaka hi mudyondzisi</th><th colspan="2">Migingiriko ya xitichi xo tirhela</th></tr>
<tr><td>Siku ra 1</td><td>Tivisa 2; xitori xa xipendiwankhaviso xa tinomboro.</td><td rowspan="5">Ku vula xivumbeko na muhlovo wa swihlayeri kusuka eka Khiti ya Swipfuno.
Nghingiriko wa swirhendzevutana – swihlawulekisi.
Makhadi ya mathonsi ya tinomboro, swifaniso na mifungho ya 1 na 2.</td><td rowspan="5">Nghingiriko wa 1
Nghingiriko wa 2
Nghingiriko wa 3
Nghingiriko wa 4</td><td rowspan="5">Thempuleti ya vumba byo tlangisa – endla 2.
Swikandziyisiwa swa xirhendzevutana – pende na tikhontheni.
Thempuleti ya ‘puleti’ – tsema kutani u namarheta swifaniso swa swakudya.
Swiphazamiso swa miri.</td></tr>
<tr><td>Siku ra 2</td><td>Xana xivumbeko lexi i yini? Tivisa xirhendzevutana.</td></tr>
<tr><td>Siku ra 3</td><td>Kuma swirhendzevutana ekamareni ro dyondzela.</td></tr>
<tr><td>Siku ra 4</td><td>Hlayela swirho swa miri swo hambana; valanga ndzingano emirini ya vona vini.</td></tr>
<tr><td>Siku ra 5</td><td>Xirhendzevutana (tirhisa phositara) na ndzingano exifanisweni.</td></tr>
</table>

<table>
<tr><th colspan="5">Week 5</th></tr>
<tr><td colspan="5">CONTENT AREA: SPACE AND SHAPE (GEOMETRY)</td></tr>
<tr><td colspan="5">TOPIC: Recognise, identify and name 2-D shapes (square); compare 3-D objects and 2-D shapes (box and square); direction: forwards/backwards; position: inside/outside
INTRODUCE NEW KNOWLEDGE: Square, directionality (forwards/backwards), position (inside/outside)
PRACTISE: Circle, oral counting 1–5, counting objects 1–5, number concept 1 and 2</td></tr>
<tr><th colspan="2">Whole class activities</th><th>Teacher-guided activity</th><th colspan="2">Workstation activities</th></tr>
<tr><td>Day 1</td><td>Introduce the square (vocabulary).</td><td rowspan="5">Oral counting/matching dot, number cards 1 and 2.
Touch counting Unifix blocks, build Unifix towers.
Properties of a box and a square.
Feely bag (boxes and balls).
2-D square activity – tracing around a box.
Position (inside/outside).</td><td>Activity 1</td><td>Playdough with circle and square cookie cutter to make model.</td></tr>
<tr><td>Day 2</td><td>Properties of the square; difference between circle and square.</td><td>Activity 2</td><td>Cut out squares and paste to make a picture.</td></tr>
<tr><td>Day 3</td><td>Word problem (Poster Book) – square; find squares in the class.</td><td>Activity 3</td><td>Sorting square-shaped and circle-shaped objects.</td></tr>
<tr><td>Day 4</td><td>Directionality (forwards and backwards).</td><td>Activity 4</td><td>Puzzles (minimum six pieces).</td></tr>
<tr><td>Day 5</td><td>Make patterns with squares, colours.</td><td></td><td></td></tr>
</table>

<table>
<tr><th colspan="5">Vhiki ra 5</th></tr>
<tr><td colspan="5">NKONGOMO WA XIYENGE XA VUNDZENI: NDHAWU NA XIVUMBEKO (JOMETIRI)</td></tr>
<tr><td colspan="5">NHLOKOMHAKA: Lemuka, tiva na ku vula mavito ya swivumbeko swa 2-D (xikwere); fananisa michumu ya 3-D na swivumbeko swa 2-D (bokisi na xikwere); tlhelo: kuya emahlweni/kuya endzhaku; xiyimo: endzeni/ehandle
TIVISA VUTIVI BYINTSHWA: Xikwere, swa matlhelo (kuya emahlweni/kuya endzhaku), xiyimo (endzeni/ehandle)
TITOLOVETI: Xirhendzevutana, ku hlayela ka swanomu 1–5, ku hlayela michumu 1–5, nongoti wa tinomboro 1 na 2</td></tr>
<tr><td colspan="2">Migingiriko ya tlilasi hinkwayo</td><td>Nghingiriko lowu leteriwaka hi mudyondzisi</td><td colspan="2">Migingiriko ya le ka xitichi xo tirhela</td></tr>
<tr><td>Siku ra 1</td><td>Tivisa xikwere (ntivomarito).</td><td rowspan="5">Ku hlayela kaswanomu/ku pananisa makhadi ya mathonsi, makhadi ya tinomboro ya 1 na 2.
Khumba tibuloko to hlayela ta Unifix, aka swihondzo swa Unifix.
Swihlawulekisi swa bokisi na swa xikwere
Bege yo twa (mabokisi na tibolo).
Nghingiriko wa swikwere swa 2-D – ku landzelerisa ku rhendzeleka na bokisi.
Xiyimo (endzeni/ehandle).</td><td>Nghingiriko wa 1</td><td>Vumba byo tlangisa lebyi nga na xitsemakhekhe na ra swikwere ku endla modlolo.</td></tr>
<tr><td>Siku ra 2</td><td>Swihlawulekisi swa xikwere; ku hambana exikarhi ka xirhendzevutana na xikwere.</td><td>Nghingiriko wa 2</td><td>Tsema swikwere kutani u swi namarheta ku endla xifaniso.</td></tr>
<tr><td>Siku ra 3</td><td>Xiphiqo xa marito (Buku ya Tiphositara) – xikwere; kuma swikwere etlilasini.</td><td>Nghingiriko wa 3</td><td>Ku ava michumu leyi nga na xivumbeko xa xikwere na xivumbeko xa xirhendzevutana.</td></tr>
<tr><td>Siku ra 4</td><td>Swa matlhelo (kuya emahlweni na kuya endzhaku).</td><td>Nghingiriko wa 4</td><td>Swiphazamiso (mpimohansi wa tsevu wa swiphemu).</td></tr>
<tr><td>Siku ra 5</td><td>Endla tipatironi hi swikwere, mihlovo.</td><td></td><td></td></tr>
</table>

Workshop 2 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?

_____
_____
_____
_____

Fomo ya Nkambelo ya Ndzetelavutivi wa 2

1. Xana ndzetelavutivi lowu wu fikelerile swilanguteriwa swa wena?

_____
_____
_____
_____

2. Xana u dyondzile yini eka ndzetelavutivi lowu wu ku pfuneke swinene?

_____
_____
_____
_____

3. Xana a ku ri na xilo xihi kumbe xihi lexi u nga xi tsakelangiki kumbe u veke na ku tikeriwa hi ku xi twisisa?

_____
_____
_____
_____

4. Xana u ta swi tirhisa njhani leswi u swi dyondzeke ekamareni ra wena ro dyondzela ra Giredi ya V?

_____
_____
_____
_____

5. Xana u na swiringanyeto swihi kumbe swihi swa ku antswisa miletelavutivi yo yisa emahlweni?

_____
_____
_____
_____