Tshivenḓa/English

Mbekanyamushumo ya u Khwinifhadza Mbalo dza Gireidi ya Ṱ Grade R Mathematics Improvement Programme

Wekishopo ya 2 ● Workshop 2
Nyendedzi ya Mutshimbidzi ● Facilitator's Guide

Mbalo dza Gireidi ya Ṱ na Thandela ya u Khwinisa Dzinyambo ndi vhurangeli ha **Gauteng Department of Education** na vhafarakani navho vha ndeme vha, **Gauteng Education Development Trust**.

Mveledziso na vhubveledzi ha vhupfumbudzi na zwishumiswa zwa kiḽasirumu ya Mbalo dza Gireidi ya Ṱ na Thandela ya u Khwinisa Dzinyambo zwo konadzea nga ndambedzo ya thandela u bva kha vha **United States Agency for International Development** na vha **Zenex Foundation**.

Mbalo dza Gireidi ya Ṱ na Thandela ya u Khwinisa Dzinyambo i langulwa nga vha **JET Education Services** na **Schools Development Unit ya UCT** na **Wordworks** sa vhafarakani vha thekhinikhala.

Schools Development Unit (SDU) ngei **University of Cape Town** (UCT) ndi mufarakani wa thekhinikhala wa mbalo kha Mbalo dza Gireidi ya Ṱ na Thandela ya u Khwinisa Dzinyambo. SDU ndi yuniti ngomu ha School of Education tsha UCT ine ya sedzesa kha mveledziso ya phurofeshinala ya vhagudisi kha Mbalo, Saintsi, Ḽitheresi/Dzinyambo na Zwikili zwa Vhutshilo u bva kha Gireidi ya Ṱ u ya kha Gireidi ya 12. SDU i ṋetshedza ndalukanyo dza mugudisi na khoso pfufhi dzo themendelwaho dza UCT, mushumo wo ḓisendekaho nga tshikolo, mveledziso ya matheriala na ṱhoḓisiso zwa u tikedza u gudisa na u guda nga nyambo dzoṱhe dza Afrika Tshipembe.

NDIVHUHO
Ndivhuho dzo khetheaho kha:
- Vhaofisiri vha Khethekanyo ya Kharikhulamu, Pfunzo ya Vhagudisi na Pfunzo yo Khetheaho ya Gauteng Department of Education, kha u shela havho mulenzhe kha u shandulela matheriala ashu.
- Vhaofisiri na vhagudisi vha Western Cape Education Department (WCED) kha u shela havho mulenzhe kha u khunyeledza u thomiwa ha Grade R Mathematics Programme (R-Maths) kha ḽa Western Cape vhukati ha 2016 na 2019.
- Tshigwada tsha vhaṅwali vha R-Maths: vhashumi vha SDU na vhaeletshedzi.

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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)

Preparation
♦ PPT welcome and outcomes
♦ Copy and cut out the Appendix B strips and place them into one envelope per group.
♦ Set up a simple obstacle course in an open space.
♦ Prepare the tables with materials before each session.

Manweledzo

Ndivho

Iyi ndi wekishopo ya vhuvhili kha dza fumimbili dza Mbekanyamushumo ya u Khwinifhadza Mbalo dza Gireidi ya Ṱ ine ya vhumba tshipiḓa tsha Muhasho wa Pfunzo wa Gauteng (GDE) Mbalo dza Gireidi ya Ṱ na Thandela ya u Khwinisa Dzinyambo.

Ndivho ya wekishopo iyi ndi u thusa vhagudisi u thoma Mbekanyamushumo ya Mbalo ngomu kiḽasirumuni dzavho. Zwo sedzeswaho kha iyi wekishopo ndi Tshikhala na Tshivhumbeo (Dzhomeṱiri). Vhashelamulenzhe vha ḓo khwaṱhisa nḓivho yavho na u pfesesa u funza na u guda kha Sia ḽa Magudiswa iḽi, u lugisela u funza nyito dza Tshikhala na Tshivhumbeo (Dzhomeṱiri) ngomu kiḽasirumuni dzavho na u humbula nga milayo ya nyendedzi ine ya thusedza kha u funza.

Mvelelo dza u guda

♦ U humbula nga u thomiwa ha Kotara ya 1 Vhege ya 1–2

♦ U tandula maano u itela u tikedza u funza mbalo kha Gireidi ya Ṱ (sa tsumbo, u tandulula thaidzo, tsenguluso, thandululo, u vhudzisa mbudziso, u humbula hu sasaladzaho, u thetshelesa nga mafulufulu, u vhona)

♦ U shuma na magudiswa a Mbekanyamushumo ya Mbalo a Kotara ya 1 Vhege ya 3–5 (Tshikhala na Tshivhumbeo (Dzhomeṱiri))

♦ U shumisa milayo ya Mbekanyamushumo ya Mbalo kha u pulana ha vhege nga vhege

Magudiswa a wekishopo

♦ Mvulatswinga na mihumbulo   (Awara 1)

♦ Dzulo ḽa 1: Manweledzo a magudiswa   (Awara 1)
TIE

♦ Dzulo ḽa 2: Tshikhala na Tshivhumbeo (Dzhomeṱiri)   (Awara 2)
TSHISWIṰULO

♦ Dzulo ḽa 3: U pulanela u funza   (Awara 2)

Ndugiselo

♦ PPT u ṱanganedza na mvelelo

♦ U kopa na u gera zwipiḓa zwa Ṱhumetshedzo ya B na u zwi dzhenisa ngomu ha fulobo nthihi nga tshigwada.

♦ U thoma tshikundisi tshi fanelaho u kundwa tsho leluwaho fhethu ho vuleaho.

♦ U lugisela maṱafula nga matheriala phanḓa ha dzulo ḽiṅwe na ḽiṅwe.

Materials

♦ Flipchart paper, kokis
♦ Props for obstacle course
♦ *Concept Guide*
♦ *Poster Book*
♦ *Activity Guide: Term 1*
♦ Boxes, balls and ramps for each table
♦ Large sheet of newsprint (for tracing around a person)
♦ Newsprint and crayons for each table
♦ Attribute blocks for each table

Matheriala

- Bammbiri ḽa fiḽipitshati, dzikhokhi
- Dzipuropo dza tshikundisi tshi fanelaho u kundwa
- *Nyendedzi ya Ḓivhaipfi*
- *Bugu ya Dziphositara*
- *Nyendedzi ya Nyito: Kotara ya 1*
- Mabogisi, bola na miratho ya ṱafula ḽiṅwe na ḽiṅwe
- Shithi ḽihulwane ḽa bammbiri ḽa gurannḓa (u itela u oledzela u mona na muthu)
- Bammbiri ḽa gurannḓa na dzikhirayoni dza ṱafula iṅwe na iṅwe
- Zwibuḽoko zwa zwidodombedzwa zwa ṱafula iṅwe na iṅwe

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?

_____
_____
_____

Mvulatswinga na mihumbulo

Notsi dza mutshimbidzi

- ♦ PPT: Kha vha vule dzulo, vha ṱanganedze vhashelamulenzhe vha vhale mvelelo dza wekishopo.
- ♦ Kha vha humbudze vhashelamulenzhe nga *Mushumo wa u ṱuwa nawo tshikoloni* u bva mafheleloni a Wekishopo ya 1. Kha vha humbele vhashelamulenzhe u shuma nga zwigwada u amba nga mushumo uyu na u fhedzisa **Nyito ya 1**.
- ♦ Zwigwada zwi kovhana mbuno dza ndeme na tshigwada tshihulwane.
- ♦ Kha vha ṋee mutevhe wa tsumbo dza nḓowelo yavhuḓi dzi re kha bammbiri ḽa gurannḓa na u ṱuṱuwedza vhashelamulenzhe u ṅwala izwi kana u dzhia tshinepe tsha bammbiri ḽa gurannḓa sa rekhodo.
- ♦ Kha fuloro, kha vha vhee muḓali wa vhulapfu ha kiḽasirumu. Kha vha swaye magumoni a sia ḽithihi ḽa muḓali: 1 = Mbekanyamushumo ya Mbalo yo ita phambano khulu kha u funza hanga. Kha vha swaye magumoni a ḽinwe sia ḽa muḓali: 10 = Mbekanyamushumo ya Mbalo a yo ngo ita phambano kha u funza hanga.
- ♦ Kha vha rambe vhashelamulenzhe vha si gathi nga tshifhinga tshithihi uri vha ime kha muḓali vha tshi sumbedza hune vha vha hone kha tshikalo na u ṱalutshedza uri ndi ngani vho nanga u ima henefho.

Kha *Mushumo wa u ṱuwa nawo tshikoloni* wavho wa Wekishopo ya 1 vho humbelwa u ita nyito dzo vhalaho. Ri khou ṱoḓa u fhedza minetse i si gathi ri tshi khou amba nga mvelaphanḓa u swika zwino.

Vha tshigwadani tshavho, kha vha humbule nga u funza havho mbalo vhegeni mbili dzo fhiraho na uri vho konisa hani u thoma Kotara ya 1 Vhege ya 1–2.

👪 Nyito ya 1

Tshigwadani tshavho, kha vha haseledze zwe vha kona na khaedu dza u thoma Kotara ya 1 Vhege ya 1–2 zwa Mbekanyamushumo ya Mbalo. Kha vha tendele muthu muṅwe na muṅwe uri a wane tshikhala tsha u kumedza mihumbulo yawe.

1. Kha vha ṱaluse nga u pfufhifhadza uri vho dzudzanyisa hani kiḽasirumu yavho na uri vho lugisela hani u funza vhegeni idzi mbili.

   _____
   _____
   _____

2. Kha vha haseledze zwe zwa shuma zwavhuḓi na zwe vha wana vhuleme u zwi thoma. Hu na ane a vha na madzinginywa ane a nga thusa?

   _____
   _____
   _____

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

_____
_____
_____

Facilitator's notes

♦ Wrap us this session with feedback from each group. Refer to specific activities in *Activity Guide: Term 1* to support what participants share.
♦ Discuss the video with a focus on how participants managed the teacher-guided activity in Week 2.

Video 1

Activity Guide: Term 1, Week 2, Teacher-guided activity #3 (page 46)

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.

Facilitator's notes

♦ Hand out one envelope containing the eight guiding principles of teaching and matching statements to each group.
♦ Explain that the participants need to match the principles with the statements to complete **Activity 2**.

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.

3. Kha vha ri ṱalutshedze uri vho shumisa hani nahone lini milayo ya nyendedzi ya u funza kha mbekanyamushumo yavho ya ḓuvha liṅwe na liṅwe ya tshifhinga tsho sedzwaho tsha Mbalo?

_____

_____

_____

🎥 **Vidiyo ya 1**

Nyendedzi ya Nyito: Kotara ya 1, Vhege ya 2, Nyito yo rangwaho phanḓa nga mugudisi #3 (siaṱari ḽa 47)

Kha vha ṱalele vidiyo ya nyito yo rangwaho phanḓa nga mugudisi ine ya katela tshigwada tshiṱuku tsha vhagudi.

Vha humbula uri ndivho ya nyito ndi ifhio? Kha vha dzhiele nzhele uri mugudisi u ṱuṱuwedza hani vhagudi nga mbudziso na uri u lavhelesa hani mugudi muṅwe na muṅwe.

_____

_____

_____

Kha Wekishopo ya 1 ro haseledza milayo ya nyendedzi ya malo ya u funza mbalo kha Gireidi ya Ṱ. Nyito ya 2 i ṱoḓa uri vha fanyise muṅwe na muṅwe wa milayo ya malo na zwitatamennde zwivhili zwine zwa kona u u ṱalusa zwavhuḓi.

👥 **Nyito ya 2**

1. Tshigwada tshiṅwe na tshiṅwe tsho ṋewa fulobo i re na tshivhalo tsha zwiṱiripi. Kha vha wane milayo ya nyendedzi ya malo ya u funza vha i vhee nga mutevhe kha ṱafula yavho.

2. Kha vha haseledze tshitatamennde tshiṅwe na tshiṅwe vha dzhie tsheo ya uri tshi tshimbilelana na mulayo ufhio. Kha vha vhee tshitatamennde fhasi ha mulayo uyu.

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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:

Dzulo ḽa 1: Manweledzo a magudiswa

Notsi dza mutshimbidzi

♦ Kha vha rumele vhashelamulenzhe kha masiaṱari a 126–131 a *Nyendedzi ya Ḓivhaipfi*. Kha vha humbudze vhashelamulenzhe uri thebuḽu iyi i ṋetshedza muhanga wa u pulana hoṱhe ha mbalo nahone i ḓo shumiswa na u referentsiwa tshifhinga tshoṱhe tsha u pfumbudzwa.

♦ Kha vha humbele vhashelamulenzhe u shuma nga zwigwada u itela u fhedzisa **Nyito ya 3**. Kha vha humbele muthu muthihi u bva tshigwadani tshiṅwe na tshiṅwe uri a ambe mihumbulo yatsho.

Manweledzo a magudiswa a Kotara ya 1: Tshikhala na Tshivhumbeo (Dzhomeṱiri)

Magudiswa a u funza na u guda kha Vhege ya 3–5 a sedzesa zwihulusa kha Sia ḽa Magudiswa ḽa TSHIPHOKHALI, Tshikhala na Tshivhumbeo (Dzhometiri). Magudiswa aya a katela zwi fhiraho u funza vhagudi u topola zwivhumbeo zwa dzhomeṱiri. Kupfesesele kwavho kwa tshikhala na tshivhumbeo zwo ḓitika nga maanḓa kha uri vha a pfesesa naa nahone vha nga shumisa ḓivhaipfi ya vhuimo u ṱalusa hune tshithu tsha vha hone (sa tsumbo, kha, ngomu, tsini na, murahu, phanḓa ha). Vhagudi vha tea hafhu uri vha kone u vhona zwithu u bva vhuimoni ho fhambanaho kana mbonalo (sa tsumbo, u bva nṱha, u bva fhasi, rembuluselwa matungo oṱhe, tsho shandulwa).

Notsi dza mutshimbidzi

♦ Kha vha vhudzise vhashelamulenzhe: Arali nda ri 'tshikhala na tshivhumbeo' ndi maipfi afhio a ḓaho muhumbuloni?

♦ Kha vha ṋee mutevhe wa maipfi ane vha bula kha bammbiri ḽa fiḽipitshati.

Kha vha vhale manweledzo a magudiswa a Tshikhala na Tshivhumbeo (Dzhomeṱiri) kha masiaṱari a 126–131 a *Nyendedzi ya Ḓivhaipfi*. A ṋetshedza manweledzo a magudiswa a Mbekanyamushumo ya Mbalo ane a ḓo funzwa kha kotara iṅwe na iṅwe kha Gireidi ya Ṱ.

♦ Maṅwalwo nga muvhala wa lutombo ndi magudiswa a bvaho kha Mbalo dza Gireidi ya Ṱ dza TSHIPHOKHALI.

♦ Ṱhalutshedzo ya maṅwalwo na magudiswa nga muvhala mutswu zwo dzheniswa u itela u engedza na u fhaṱa kha TSHIPHOKHALI.

♦ Thero dzo tevhekanywa u sumbedza mvelaphanḓa ya mveledziso u bva kha thero iṅwe u ya kha iṅwe.

Nyito ya 3

Kha vha lavhelese kha 3.1–3.4 kha manweledzo a magudiswa a Tshikhala na Tshivhumbeo (Dzhomeṱiri) kha masiaṱari a 126–131 a *Nyendedzi ya Ḓivhaipfi*. Tshigwadani tshavho, kha vha ite zwi tevhelaho:

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

_____

_____

_____

_____

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

_____

_____

_____

_____

Refer to the black text. Main additions to CAPS are:
- position of child in relation to their surroundings
- exploring 3-D objects: flat, round, square or rectangular shape
- rectangle (referred to incidentally in Term 1 and taught in Term 3)
- recognise, identify and name 2-D shapes
- comparing rectangles and squares
- curved and straight lines.

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

_____

_____

_____

_____

Understanding more about their world – everything around us has a shape. Learning the correct language enables learners to talk about and describe shapes.
Many of the terms also apply to understanding the position of number in the counting sequence or the sequence of items in a pattern. Many life skills depend on spatial awareness and skills, e.g. following directions or reading a map, packing things into a container, etc.

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.

_____

_____

_____

_____

1. Kha vha lavhelese thero iṅwe na iṅwe vha haseledze magudiswa na mvelaphanḓa ya mveledziso kha kotara dzoṱhe nṋa.

_____
_____
_____
_____

2. Kha vha lavhelese kha ḽiṅwalo ḽitswu vha haseledze zwine Mbekanyamushumo ya Mbalo ya engedza kha magudiswa u bva kha TSHIPHOKHALI.

_____
_____
_____
_____

Kha vha sedze kha ḽiṅwalo ḽitswu. Zwo engedzwaho zwa ndeme kha TSHIPHOKHALI ndi:
- vhuimo ha ṅwana zwi tshi elana na vhupo vhune a vha khaho
- u tandula zwithu zwa 3-D: tshivhumbeo tsha fulete, tshipulumbu, tshikwea kana ṱhofundeiṋa
- ṱhofundeiṋa (yo ambiwa nga hayo hu tshi khou pfukwa kha Kotara ya 1 na u funzwa kha Kotara ya 3)
- u vhona, u topola na u bula zwivhumbeo zwa 2-D
- u fanyisa ṱhofundeiṋa na zwikwea
- mitalo yo khevaho na ya tswititi.

3. Ndi ngani vha tshi humbula uri maraga dza Tshikhala na Tshivhumbeo (Dzhomeṱiri) ndi dza vhuvhili nga u vha nṱhesa kha Sia ḽa Magudiswa kha Gireidi ya Ṱ?

_____
_____
_____
_____

U pfesesa zwinzhi nga ḽifhasi ḽavho – zwiṅwe na zwiṅwe u mona na riṋe zwi na tshivhumbeo. U guda luambo lwo teaho zwi konisa vhagudi u amba na u ṱalusa zwivhumbeo.
Ḓivhaipfi nnzhi i dovha hafhu ya shuma kha u pfesesa vhuimo ha nomboro kha mutevhe wa u vhalela kana mutevhe wa zwithu zwi re kha phetheni. Zwikili zwa vhutshilo zwinzhi zwo ḓitika nga u ḓivha tshikhala na zwikili, sa tsumbo, u tevhela masia kana u vhala mapa, u paka zwithu ngomu ha tshifaredzi, ngauralongauralo.

4. Vho funzisa hani Tshikhala na Tshivhumbeo (Dzhomeṱiri) ngomu kiḽasini yavho? Kha vha ṋee tsumbo dza ngudo na nyito dze vha dzi shumisa tshifhingani tsho fhiraho.

_____
_____
_____
_____

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.

Facilitator's notes

♦ Set up an obstacle course using chairs, hula hoops, planks, tables and a box.
♦ Examples of instructions to use:
  - Take two steps forward.
  - Jump into the hula hoop.
  - Jump out of the hula hoop.
  - Stand with one leg in the hula hoop.
  - Crawl forwards through the legs of the table.
  - Stand up and turn around.
  - Take three steps backwards.
  - Put one leg inside the hula hoop.
  - Jump over the box.
  - Walk between the chairs.
  - Stand in the box.

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

Facilitator's notes

PPT: Poster 9: Ask questions that require answers that use position and direction words.

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.

Dzulo ḽa 2: Tshikhala na Tshivhumbeo (Dzhomeṱiri)

Ḓivhaipfi ya tshikhala   (Minetse ya 30)

Vhagudi vha thoma u guda nga ḓivhaipfi ya tshikhala u fana na vhuimo, sia, orientheseni (mbonalo dzo fhambanaho) na mbonalo vhukuleni zwenezwi vha tshi khou shumisa mivhili yavho u tandula vhushaka vhukati ha vhone vhaṋe, vhaṅwe vhathu na zwithu.

Notsi dza mutshimbidzi

♦ Kha vha dzudzanye tshikundisi tshi fanelaho u kundwa vha tshi shumisa zwidulo, dzihuḽa hupu, mabulannga, maṱafula na bogisi.

♦ Tsumbo dza ndaela dzine vha nga shumisa:
  - Iyani phanḓa nga maga mavhili.
  - Fhufhelani ngomu ha huḽa hupu.
  - Fhufhelani nnḓa ha huḽa hupu.
  - Imani nga mulenzhe muthihi ngonu ha huḽa hupu.
  - Kokovhelani phanḓa ni fhire kha milenzhe ya ṱafula.
  - Imani ni mone.
  - Humelani murahu nga maga mararu.
  - Dzhenisani mulenzhe muthihi ngomu ha huḽa hupu.
  - Fhufhani bogisi.
  - Tshimbilani vhukati ha zwidulo.
  - Imani ngomu bogisini.

Nyito ya 4

Mutshimbidzi o dzudzanya tshikundisi tshi fanelaho u kundwa tsho leluwaho. Na mufarakani kha vha sielisane u gaidana u fhira kha tshikundisi tshi fanelaho u kundwa. Kha vha shumise luambo lwa vhuimo na sia u ṋea ndaela dzi sa kanganysi.

U shumisa *Bugu ya Dziphositara* u amba nga vhuimo na sia

Notsi dza mutshimbidzi

PPT: Phositara ya 9: Kha vha vhudzise mbudziso dzine dza ṱoḓa phindulo dzine dza shumisa maipfi a vhuimo na sia.

Bugu ya Dziphositara ya Mbekanyamushumo ya Mbalo i ṋetshedza zwikhala zwa u shumisa nyimele dza vhutshilo ha vhukuma u tandula ḓivhaipfi. Kha Phositara ya 9 ya *Bugu ya Dziphositara* vha nga vhona hune Malusi a dzula hone zwi tshi elana na vhaṅwe vhathu na fhethu hu re vhuponi ha hawe. Phositara iyi i nga shumiswa u ṱuṱula khaseledzo nga vhuimo ha vhathu na zwithu zwi tshi elana na zwone zwine na u ṱuṱuwedza vhagudi u shumisa na u ḓivha luambo lune lwa ṱalusa tshikhala, vhuimo na sia. Vhagudi vha ṱuma mbalo na vhutshilo havho ha ḓuvha ḽiṅwe na ḽiṅwe zwenezwi vha tshi khou haseledza na u tandulula thaidzo.

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?

_____
_____
_____

Position: on top of, behind, in front of, in, on, under, next to.
Direction: turn, straight, forwards, towards, away from, left, right, to, from, around, along, through.

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

_____
_____
_____

Examples:
- Where is …?
- What is in front/behind/under/next to the …?
- How will Malusi get to …?

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

👥 **Nyito ya 5**

Tshigwadani tshavho, kha vha lavhelese kha Phositara ya 9 vha haseledze zwi tevhelaho:

1. Ndi maipfi afhio a vhuimo na sia ane vha nga a ḓivhadza vhagudi na u vha ṱuṱuwedza u a shumisa?

_____

_____

_____

Vhuimo: nṱha ha, murahu, phanḓa ha, ngomu, kha, fhasi, tsini na.

Sia: u khona, tswititi, u ya phanḓa, u ya thungo lwa, kule na, monde, tshauḽa, u ya kha, u bva, u mona na, u vhambelana na, nga.

2. Ndi dziṅwe mbudziso dzifhio dzine vha nga vhudzisa vhagudi dzine dza ḓo vha thusa u guda nga vhuimo, sia, orienthesheni (mbonalo) na kuhumbulele?

_____

_____

_____

Tsumbo:

- … tshi ngafhi?

- Ndi mini tshi re phanḓa ha/murahu ha/fhasi ha/tsini na …?

- Malusi u ḓo swikisa hani kha …?

Kha vha sedze masiaṱari a 172–177 a *Nyendedzi ya Ḓivhaipfi* u itela u vhala zwinzhi nga tshikhala.

Introducing shapes   (1 hour)

Facilitator's notes

♦ In Grade R learners recognise, identify and name three-dimensional (3-D) objects and two-dimensional (2-D) shapes.
♦ Refer to pages 178–189 of the *Concept Guide*.
♦ Discuss the terms '2-D shapes' and '3-D objects'.
♦ Use real objects to demonstrate as you explain the difference between these terms.

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

Facilitator's notes

♦ Discuss how learners engage with the properties of 3-D objects as they explore everyday materials such as boxes, cans, toilet roll inners, balls and so on.
♦ Ask participants what they provide in their classrooms that helps learners to discuss, compare and sort objects. Explain that the next activity will demonstrate how to help learners recognise the properties of objects.
♦ Show the video and ask participants to complete the activity in their groups.

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

Activity Guide: Term 1, Week 3, Day 1 #4 (page 54)

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.

Notsi dza mutshimbidzi

- Kha Gireidi ya Ṱ vhagudi vha vhona, u topola na u bula zwithu zwa mielo miraru (3-D) na zwivhumbeo zwa mielo mivhili (2-D).
- Kha vha sedze masiaṱari a 178–189 a *Nyendedzi ya Divhaipfi*.
- Kha vha haseledze ḓivhaipfi 'zwivhumbeo zwa 2-D' na 'zwithu zwa 3-D'.
- Kha vha shumise zwithu zwa vhukuma u sumbedza zwenezwi vha tshi khou ṱalutshedza phambano vhukati ha ḓivhaipfi idzi.

Kha Gireidi ya Ṱ vhagudi vha sedzesa kha u vhona, u topola na u bula zwithu zwa mielo miraru (3-D) na zwivhumbeo zwa mielo mivhili (2-D).

- 3-D zwi amba uri tshithu tshi na mielo miraru: vhulapfu, vhuphara (u ṱanḓavhuwa) na vhunṱha.
- 2-D zwi amba uri tshivhumbeo tshi na mielo mivhili: vhulapfu na vhuphara (u ṱanḓavhuwa).

U vhona, u topola na u vhambedza zwithu zwa mielo miraru

Notsi dza mutshimbidzi

- Kha vha haseledze uri vhagudi vha shuma hani na vhunzani ha zwithu zwa 3-D zwenezwi vha tshi khou tandula materiala a ḓuvha ḽiṅwe na ḽiṅwe u fana na mabogisi, zwikoṱikoṱi, bammbiri ḽa ngomu ha rolo ya bungani, bola, ngauralongauralo.
- Kha vha vhudzise vhashelamulenzhe zwine vha ṋetshedza ngomu kiḽasini dzavho zwine zwa thusa vhagudi u haseledza, u vhambedza na u vhekanya zwithu. Kha vha ṱalutshedze uri nyito i tevhelaho i ḓo sumbedza uri hu thuswa hani vhagudi u vhona vhunzani ha zwithu.
- Kha vha sumbedze vidiyo vha humbele vhashelamulenzhe u fhedzisa nyito zwigwadani zwavho.

Kha Gireidi ya Ṱ vhagudi vha tandula vhunzani ha zwithu zwa ḓuvha ḽiṅwe na ḽiṅwe. Vha fhaṱa mbumbo vha tshi shumisa materiala a nḓuni o bikululwaho u fana na mabogisi, zwikoṱikoṱi, zwidongo, bammbiri ḽa ngomu ha rolo ya bungani, ngauralongauralo. Vha sengulusa na u ṱalusa zwithu zwa zwivhumbeo zwa bogisi na bola. Vha vhambedza na u vhekanya zwithu vha amba nga zwi fanaho na zwi fhambanaho.

📹 **Vidiyo ya 2**

Nyendedzi ya Nyito: Kotara ya 1, Vhege ya 3, Ḓuvha ḽa 1 #4 (siaṱari ḽa 55)

Kha vha ṱalele vidiyo ya mugudisi a tshi khou amba na vhagudi vhane vha khou vhekanya khuvhanganyo ya zwithu. Kha vha thetshelese uri u ṱuṱuwedza hani vhagudi u ṱalutshedza uri vha khou vhekanyisa hani zwithu na uri vha shumise hani ḓivhaipfi yo teaho u ṱalusa tshithu tshiṅwe na tshiṅwe.

Kha vha sedze masiaṱari a 178–181 a *Nyendedzi ya Ḓivhaipfi* u itela u vhala zwinzhi nga zwithu zwa mielo miraru (3-D).

Moving from 3-D objects to 2-D shapes

Facilitator's notes
♦ Ask a volunteer to join you. Ask participants to look at this person from the front, the top and the side, and to describe what they see. Explain that we can view this person from many different positions if we move or if we turn them.
♦ Ask the volunteer to lie flat on his/her back on a large sheet of paper and trace around him/her with a koki. Once the outline has been drawn, have the participant stand up.
♦ Ask participants what they see on the paper.
♦ Ask questions that focus on the person and on the shape or outline of the person, for example: Can you look at the drawing from different positions?
♦ Place a number of boxes, a large piece of paper and crayons on each group's table. Explain that the participants will explore the boxes in **Activity 6**.
♦ After the activity discuss what participants observed. Point out that this activity helps learners create shapes by tracing around the base of objects.

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.

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.
  Straight, four, two long and two short/all the same

U ratha u bva kha zwithu zwa 3-D u ya kha zwivhumbeo zwa 2-D

Kha Gireidi ya Ṱ, hu sedzeswa kha vhunzani ha zwithu na zwivhumbeo. Vhagudi vha guda u topola na u ṱalusa vhunzani ha zwithu na zwivhumbeo.

Nyito ya 6

Kha vha tandule na u ṱalusa vhunzani ha bogisi.

♦ Kha vha vhee bogisi kha tshipiḓa tsha bammbiri.

♦ Kha vha oledzele u mona na fhasi ha bogisi.

♦ Kha vha ṱaluse mitalo ya nyolo yavho.

Tswititi, miṋa, mivhili milapfu na mivhili mipfufhi/i a fana yoṱhe

25

- ♦ 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

Facilitator's notes
♦ Explain that learners also need opportunities to explore a variety of shapes to find out what the common properties of a particular shape are. Refer participants to **Activity 7** and ask them to use their attribute blocks and to follow the instructions.
♦ Point out that the attribute block is an object. (It has length, width and height.) If you focus on the surface of the attribute block by running your finger along the edges, you will follow the lines and trace the length and width of the shape, e.g. a square, rectangle, triangle or circle (the edge of the circle is curved).
♦ Ensure that participants understand the difference between 3-D and 2-D and can explain this to learners.
♦ Emphasise that in Grade R learners do not learn the terms 3-D and 2-D. They only talk about 'objects' and 'shapes', but they should use the correct vocabulary to describe the properties.
♦ Link **Activity 7** to Poster 8 and briefly discuss the shapes.
♦ Explain the term 'orientation'.

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.

- Kha vha bule tshivhumbeo tshe vha ola.
- Vha zwi ḓivha hani uri ndi tshikwea/ṱhofundeiṋa?
- Tshi na masia mangana?
- Tshi na khuḓa nngana?
- Ndi phambano ifhio i re vhukati ha bogisi na tshikwea/ṱhofundeiṋa?

U vhona, u ṱalusa na u vhambedza zwivhumbeo zwa mielo mivhili

Notsi dza mutshimbidzi

- Kha vha ṱalutshedze uri vhagudi vha ṱoḓa hafhu zwikhala zwa u tandula zwivhumbeo zwo fhambanaho u itela u wana uri ndi vhunzani vhufhio vhu fanaho kha tshivhumbeo tiwa. Kha vha rumele vhashelamulenzhe kha **Nyito ya 7** vha vha humbele uri vha shumise zwibuḽoko zwa zwidodombedzwa zwavho na u tevhela ndaela.
- Kha vha sumbedze uri zwibuḽoko zwa zwidodombedzwa ndi tshithu. (Tshi na vhulapfu, vhuphara na vhunṱha.) Arali vha sedzesa kha nyalo ya tshibuḽoko tsha tshidodombedzwa nga u tshimbidza munwe wavho kha meme, vha ḓo tevhela mitalo na u oledzela vhulapfu na vhuphara ha tshivhumbeo, sa tsumbo, tshikwea, ṱhofundeiṋa, ṱhofunderaru kana tshitendeledzi (lumeme lwa tshitendeledzi lwo khevea).
- Kha vha vhone uri vhashelamulenzhe vha a pfesesa phambano vhukati ha 3 – D na 2-D na uri vha nga kona u ṱalutshedza izwi vhagudi.
- Kha vha khwaṱhisedze uri kha Gireidi ya Ṱ vhagudi a vha gudi ḓivhaipfi ya 3-D na 2-D. Vha amba fhedzi nga 'zwithu' na 'zwivhumbeo', fhedzi vha fanela u shumisa ḓivhaipfi yo teaho u ṱalusa vhunzani.
- Kha vha ṱume **Nyito ya 7** na Phositara ya 8 vha haseledze nga u pfufhifhadza zwivhumbeo.
- Kha vha ṱalutshedze ḓivhaipfi 'orientesheni'.

Vhagudi vha fanela u vhona na u haseledza zwivhumbeo zwo fhambanaho zwa 2-D u itela u wana uri ndi zwidodombedzwa zwifhio zwi fanaho zwa tshivhumbeo tiwa, sa tsumbo, naho hu na uri ṱhofunderaru dzoṱhe dzi nga si fane kokotolo, dzoṱhe dzi na masia mararu na dzikhuḓa tharu; ṱhofundeiṋa dzoṱhe dzi na masia maṋa hu sa sedzwi orientesheni.

Kha vha shumise zwibuḽoko zwa zwidodombedzwa zwi re kha ṱafula yavho u itela u tandula zwivhumbeo zwa 2-D.

🎎 **Nyito ya 7**

Tshigwadani tshavho, kha vha ambe nga tshivhumbeo tsha nyalo ya tshibuḽoko tsha zwidodombedzwa tshiṅwe na tshiṅwe.

- Kha vha ṱoḓe tshivhumbeo tshi re na khuḓa nṋa.
- Kha vha shumise minwe yavho u oledzela u mona na tshivhumbeo. Tshivhumbeo itsho tshi vhidzwa mini?
- Kha vha ṱoḓe tshivhumbeo tshi si na masia tswititi.
- Kha vha shumise minwe yavho u oledzela u mona na tshivhumbeo. Tshivhumbeo itsho tshi vhidzwa mini?
- Kha vha ṱoḓe tshivhumbeo tshi re na masia mararu ane a fana kokotolo.

Kha vha sedze masiaṱari a 182–189 a *Nyendedzi ya Ḓivhaipfi* uri vha vhale zwinzhi nga zwivhumbeo zwa 2-D.

Symmetry (30 minutes)

Facilitator's notes

- PPT: Symmetrical and non-symmetrical shapes and objects. Refer to pages 188–191 of the *Concept Guide.*
- Remind participants about the **practice principle** and that learners need many opportunities to practise new skills and apply them in different contexts.

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.

Notsi dza mutshimbidzi

- ♦ PPT: Zwivhumbeo na zwithu zwa ndinganyahuvhili na zwi si zwa ndinganyahuvhili. Kha vha sedze masiaṱari a 188–191 a *Nyendedzi ya Ḓivhaipfi*.
- ♦ Kha vha humbudze vhashelamulenzhe nga **mulayo wa nḓowenḓowe** na uri vhagudi vha ṱoḓa zwikhala zwinzhi uri vha ite nḓowedzo ya zwikili zwiswa na u zwi shumisa kha nyimele dzo fhambanaho.

Tshithu kana tshivhumbeo tshi na ndinganyahuvhili musi tshi tshi nga kovhiwa nga hafu mbili dzi eḓanaho mutaloni watsho wa vhukati. Phetheni dza ndinganyahuvhili dzi nga wanala kha mivhili yashu, muponi, vhuponi ha zwifhaṱwa na kha zwifanyiso. Mutalo wa ndinganyahuvhili u khethekanya tshivhumbeo tsha bva zwipiḓa zwivhili zwi fanaho. Mutalo u nga vha wa vhutengu kana wa nzimo.

Kha vha sedze masiaṱari a 188–191 a *Nyendedzi ya Ḓivhaipfi* u itela u vhala zwinzhi nga ndinganyahuvhili.

Mulayo wa nḓowenḓowe: Vhagudi vha fanela u vha na tshifhinga tshinzhi tsha u ita nḓowedzo ya zwikili na nḓivho zwiswa. Musi vhagudi vha tshi wana nḓowedzo tshifhinga tshoṱhe kha zwe vha guda, vha vha na vhukoni hunzhi na u vha na fulufhelo nga maanḓa. Vhagudi vha ḓifhelwa nga ndovhol* na nḓowedzo. Mugudisi wa Gireidi ya Ṱ u fanela u ṋetshedza vhagudi zwikhala zwi dovhololaho u itela nḓowedzo na u khwinisa zwikili zwiswa.

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?	Space and Shape (Geometry)	Space and Shape (Geometry)	Space and Shape (Geometry)
What are the key concepts that learners will be learning?	Properties of 3-D objects Spatial concepts: in and out Big and small	Properties of 2-D shapes (circle) Symmetry	Properties of 2-D shapes (square) Backwards, forwards inside, outside
What new knowledge is introduced?	Counting objects 1–5 Properties of boxes and balls Objects that roll or slide Position: in and out Big and small Biggest and smallest	Circle Symmetry Number 2	2-D shape: square Direction: forwards and backwards Position: inside and outside
What skills are being practised?	Oral counting 1–5 Reinforce number 1 Sorting	Oral counting 1–5 Number 1 Counting objects 1–5	Circle Number concept 1 and 2 Oral counting 1–5 Counting objects 1–5

Dzulo ḽa 3: U pulanela u funza

Notsi dza mutshimbidzi

- ♦ Kha vha rumele vhashelamulenzhe kha Ṱhumetshedzo ya A: Manweledzo a Magudiswa a Vhege nga Vhege a Kotara ya 1 (Vhege ya 3–5).
- ♦ Kha vha vhale khethekanyo dza nyito dza kiḽasi yoṱhe, dzo rangwaho phanḓa nga mugudisi na dza zwiṱitshini zwa u shumela.
- ♦ Kha vha ri vhashelamulenzhe vha shume nga zwigwada u fhedzisa **Nyito ya 8**.

Manweledzo a Magudiswa a Kotara ya 1 (Vhege ya 3–5)   (Minetse ya 40)

Ṱhumetshedzo ya A: Manweledzo a Magudiswa a Vhege nga Vhege a Kotara ya 1 (Vhege ya 3–5) i ri gavhela Sia ḽa Magudiswa ḽo Sedzwaho ḽa ndeme ḽa vhege iṅwe na iṅwe, thero dzine dza ḓo funzwa, nḓivho ntswa na nḓowedzo dzo sedzwaho dza vhege inwe na inwe, na nyito dzo dzinginywaho dza kiḽasi yoṱhe, nyito dzo rangwaho phanḓa nga mugudisi na mushumo wa vhege wa tshigwada tsho ḓiimisaho nga tshoṱhe.

Kha vha vhale khethekanyo dza nyito dza kiḽasi yoṱhe, dzo rangwaho phanḓa nga mugudisi na dza zwiṱitshini zwa u shumela vha fhedzise Nyito ya 8.

Nyito ya 8

Kha vha sedze kha Ṱhumetshedzo ya A: Manweledzo a Magudiswa a Vhege nga Vhege a Kotara ya 1 (Vhege ya 3–5). Kha vha fhindule mbudziso.

Mbudziso	Vhege ya 3	Vhege ya 4	Vhege ya 5
Ndi ḽifhio Sia ḽa Magudiswa ḽo Sedzeswaho ḽa vhege?	Tshikhala na Tshivhumbeo (Dzhomeṱiri)	Tshikhala na Tshivhumbeo (Dzhomeṱiri)	Tshikhala na Tshivhumbeo (Dzhomeṱiri)
Ndi ḓivhaipfi ifhio ya ndeme ine vhagudi vha ḓo guda?	Vhunzani ha zwithu zwa 3-D Ḓivhaipfi ya tshikhala: ngomu na nnḓa Khulu na ṱhukhu	Vhunzani ha zwivhumbeo zwa 2-D (tshitendeledzi) Ndinganyahuvhili	Vhunzani ha zwivhumbeo zwa 2-D (tshikwea) Murahu, phanḓa ngomu, nnḓa
Ndi nḓivho ntswa ifhio ine ya khou ḓivhadzwa?	U vhalela zwithu 1–5 Vhunzani ha mabogisi na Zwithu zwi kunguluwaho kana zwi suvhaho Vhuimo: ngomu na nnḓa Khulu na ṱhukhu Khulwanesa na ṱhukhusa	Tshitendeledzi Ndinganyahuvhili Nomboro ya 2	Zwivhumbeo zwa 2-D: tshikwea Masia: phanḓa na murahu Vhuimo: ngomu na nnḓa
Ndi zwikili zwifhio zwine ha khou itwa nḓowedzo ngazwo?	U vhalela ha mutevhetsindo 1–5 U khwaṱhisedza nomboro 1 U vhekanya	U vhalela ha mutevhetsindo 1–5 Nomboro ya 1 U vhalela zwithu 1–5	Tshitendeledzi Ḓivhaipfi ya mbalo 1 na 2 U vhalela ha mutevhetsindo 1–5 U vhalela zwithu 1–5

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.

👁 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.

Vidiyo ya 3

Nyendedzi ya Nyito: Kotara ya 1, Vhege ya 5, Ḓuvha ḽa 3 #4 (siaṱari ḽa 91)

Kha vha ṱalele vidiyo ya vhagudi vha tshi khou haseledza nga phositara.

1. Kha vha ite notsi dza mbudziso na thaidzo dza mbalo dzine mugudisi a khou kumedzela vhana nga tshifhinga tsha khaseledzo ya phositara.

_____
_____
_____

2. Kha vha ṅwale dziṅwe mbudziso dze mugudisi a vha o fanela o vhudzisa.

_____
_____
_____

Kha vha sedze kha Vhege ya 3, 4 na 5 dza *Nyendedzi ya Nyito: Kotara ya 1*. Kha vha fhedzise Nyito ya 9 tshigwadani tshavho.

Nyito ya 9

1. Kha vha wane Vhege ya 3, 4 na 5 dza *Nyendedzi ya Nyito: Kotara ya 1*. Kha vha fhindule mbudziso.

♦ Ndi Sia ḽa Magudiswa ḽo Sedzwaho ḽifhio ḽa vhege iṅwe na iṅwe?

♦ Ndi thero na nḓivho ntswa zwifhio zwi funzwaho vhege iṅwe na iṅwe?

♦ Magudiswa a 'Nḓowedzo' a ṱumana hani na a vhege yo fhelaho?

♦ Vha ṱoḓa zwifhio u itela u lugisela phanḓa ha u funza vhege iṅwe na iṅwe?

♦ Kha vha vhale nyito dza kiḽasi yoṱhe na nyito dza zwigwada zwiṱuku.

♦ Kha vha haseledze zwigwadani zwavho zwiṱuku uri vha ḓo pulana na u dzudzanya hani kiḽasi yavho u itela idzi vhege tharu dza u funza.

2. Kha vha sedze kha Ṱhumetshedzo ya A: Manweledzo a Magudiswa a Vhege nga Vhege a Kotara ya 1 (Vhege ya 3–5). Kha vha fanyise nyito dza kiḽasi yoṱhe na dza zwigwada zwiṱuku kha Vhege ya 3, 4 na 5 dza *Nyendedzi ya Nyito: Kotara ya 1* na Manweledzo a Magudiswa a vhege iṅwe na iṅwe.

Vha humbule uri u linga kha Gireidi ya Ṱ a hu fomaḽa nahone ndi u linga hu yaho phanḓa. Ri fanela u sedza vhagudi ri sa imi ḓuvha ḽoṱhe, ngomu na nnḓa ha kiḽasirumu. Luswayo lwa iṱo lu ri humbudza uri ri fanela u sedza vhagudi musi vhe kati, nahone ri fanela u thetshelesa nga vhuronwane musi vha tshi khou amba na riṋe na thangana ya murole yavho.

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)

Facilitator's notes

- **Lessons learnt:** Ask participants to think about what they have learnt during the workshop and to complete **Activity 10** individually.
- **Take back to school task:** Read through this task. Ask if there is anything that is not clear and that requires more explanation.
- **Evaluation:** Hand out copies of the Workshop Evaluation Form and have participants complete the form.
- **Next workshop:** Give dates for the next workshop and close the workshop.

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

Mbekanyamushumo ya Mbalo yo dizainiwa u mona na u tshintshana ha zwigwada zwiṱuku kha vhege nahone mugudisi u sedzesa tshigwada tshithihi nga ḓuvha, a tshi lavhelesa na u thetshelesa zwenezwi vhagudi vha tshi fhedzisa mishumo yo tiwaho. Tshifhinga itshi tshi ṋea mugudisi tshikhala tsha u sedza nga vhuronwane mugudi muṅwe na muṅwe na u kuvhanganya mafhungo nga mvelaphanḓa yawe.

Kha vha lavhelese tshibuḽoko tsho swifhadzwaho magumoni a nyito yo rangwaho phanḓa nga mugudisi: **'Kha vha ṱole uri vhagudi vha a kona u'**. Mugudisi u ita notsi muhumbuloni wawe nga mugudi muṅwe na muṅwe nahone musi vhagudi vho no ṱuwa nga iḽi ḓuvha, u ṅwala zwe a vhona ngomu kha bugu yo tetshelwaho u vhona ine ya vha na tshikhala tsha notsi dza mugudi muṅwe na muṅwe.

Nyito dza u vala   (Minetse ya 20)

Nyito ya 10

Ngudo dzo gudwaho: Kha vha humbule nga zwe vha guda nga tshifhinga tsha wekishopo vha fhedzise thebuḽu.

Zwithu zwine ndi a zwi ita zwi ntshumelaho zwavhuḓi	Mihumbulo miswa ine nda tama u i lingedza

❗ 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.

❗ Mushumo wa u ṱuwa nawo tshikoloni

1. Kha vha vhale masiaṱari a *Ndendedzi ya Ḓivhaipfi* e a buliwa nga tshifhinga tsha wekishopo.

2. Kha vha dzudzanye fhethu ha mbalo ha Tshikhala na Tshivhumbeo (Dzhomeṱiri) Kha vha dzhie tshinepe tshaho vha ḓe natsho kha wekishopo i tevhelaho.

3. Kha vha shumise *Nyendedzi ya Nyito: Kotara ya 1* u pulana na u thoma Vhege ya 3–5 dza Mbekanyamushumo ya Mbalo. Musi vha tshi pulana, vha humbule nga uri milayo ya nyendedzi i nga thusa hani u pulana na u funza havho:

   - Vha ḓo zwi ḓivha hani uri vhagudi vha vho ḓivha na u pfesesa zwifhio? (**mulayo wa maimo**)

   - Vha ḓo fhaṱa hani kha ṅivhothangeli ine vhagudi vha ḓa nayo u bva hayani? (**mulayo wa magudiswa**)

   - Vha ḓo zwi konisa hani uri nyito dze vha pulana ndi dza ndeme kha vhagudi? (**mulayo wa magudiswa**)

   - Vha ḓo fhaṱa hani u thetshelesa na u amba ha mafulufulu ngomu ha nyito dze vha pulana? (**mulayo wa mvuvhano**)

4. Kha vha ṅwale zwine vha humbula uri zwo shuma zwavhuḓi na zwine a zwo ngo shuma zwavhuḓi. Kha vha ḓe na idzo notsi na tsumbo dza mushumo we vhagudi vha ita kha wekishopo i tevhelaho.

U linga

Kha vha ḓadze Fomo ya u Linga.

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

Term 1: Activity Plan

Week 3				
CONTENT AREA: SPACE AND SHAPE (GEOMETRY)				
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				
Whole class activities		**Teacher-guided activity**	**Workstation activities**	
Day 1	Explore properties of boxes and balls.	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.	**Activity 1**	Construct objects with boxes.
Day 2	Compare sizes of boxes and balls.		**Activity 2**	Big and small playdough balls – sorting.
Day 3	Explore which can slide, which can roll; big/biggest and small/smallest.		**Activity 3**	Paint prints with boxes or blocks.
Day 4	Discuss why objects roll and slide.		**Activity 4**	Build animal shelters for the farm animals with building blocks.
Day 5	Position: in and out.			
Week 4				
CONTENT AREA: SPACE AND SHAPE (GEOMETRY)				
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				
Whole class activities		**Teacher-guided activity**	**Workstation activities**	
Day 1	Introduce 2; number frieze story.	Naming the shape and colour of counters from the *Resource Kit*. Circle activity – properties. Number dot cards, pictures and symbols 1 and 2.	**Activity 1**	Playdough template – make 2.
Day 2	What is a shape? Introduce the circle.		**Activity 2**	Circle prints – paint and containers.
Day 3	Find circles in the classroom.		**Activity 3**	'Plate' template – cut and paste pictures of food.
Day 4	Count different body parts; explore symmetry in their own body.		**Activity 4**	Body puzzles.
Day 5	Circle (use poster) and symmetry in a picture.			

ṰHUMETSHEDZO YA A: MANWELEDZO A MAGUDISWA A VHEGE NGA VHEGE A KOTARA YA 1 (VHEGE YA 3–5)

Kotara ya 1: Pulane ya Nyito

Vhege ya 3				
SIA ḼA MAGUDISWA: TSHIKHALA NA TSHIVHUMBEO (DZHOMEṰIRI)				
THERO: U vhona, u topola na u bula zwithu zwa 3-D; u ṱalutshedza, u vhekanya na u vhambedza zwithu zwa 3-D (mabogisi na bola); vhuimo, u ḓivhadza na mihumbulo: ngomu na nnḓa				
KHA VHA ḒIVHADZE NḒIVHO NTSWA: U vhalela zwithu 1–5, vhunzani ha mabogisi na bola, zwithu zwine zwa kunguluwa kana u seseledza, vhuimo: ngomu na nnḓa, tshihulwane/tshiṱuku, tshihulusesa/tshiṱukusesa				
NḒOWEDZO: U vhalela ha mutevhetsindo 1–5, u khwaṱhisedza ḓivhaipfi ya nomboro (1), u vhekanya				
Nyito dza kiḽasi yoṱhe		**Nyito yo rangwaho phanḓa nga mugudisi**	**Nyito dza tshiṱitshini tsha u shumela**	
Ḓuvha ḽa 1	U tandula vhunzani ha mabogisi na bola.	U vhalela u livhanyisa tshithu nga tshithu 1–5.	**Nyito ya 1**	U fhaṱa zwithu nga mabogisi.
Ḓuvha ḽa 2	U vhambedza saizi dza mabogisi na bola.	Mutambo wa tshihulwane na tshiṱuku.	**Nyito ya 2**	Bola dza suko ḽa u tambisa khulwane na ṱhukhu – u vhekanya.
Ḓuvha ḽa 3	U tandula zwine zwa nga seseledza, zwine zwi nga kunguluwa; zwihulwane/zwihulusesa na zwiṱuku/zwiṱukusesa.	Vhunzani ha mabogisi na bola. U vhambedza mabogisi na bola.	**Nyito ya 3** **Nyito ya 4**	U pennda migaṅdiso nga mabogisi kana zwibuḽoko. U fhaṱa mahaya a phukha dza bulasini nga zwibuḽoko zwa u fhaṱa.
Ḓuvha ḽa 4	Kha vha haseledze uri ndi ngani zwithu zwi tshi kunguluwa na u seseledza.	U vhekanya zwithu zwine zwa seseledza na zwi kunguluwaho.		
Ḓuvha ḽa 5	Vhuimo: ngomu na nnḓa.			
Vhege ya 4				
SIA ḼA MAGUDISWA: TSHIKHALA NA TSHIVHUMBEO (DZHOMEṰIRI)				
THERO: U vhona, u topola na u bula zwivhumbeo zwa 2-D (tshitendeledzi); u vhambedza zwithu zwa 3-D na zwivhumbeo zwa 2-D; ndinganyahuvhili				
KHA VHA ḒIVHADZE NḒIVHO NTSWA: Tshitendeledzi, ndinganyahuvhili, kha vha ḓivhadze nomboro 2				
NḒOWEDZO: U vhalela ha mutevhetsindo 1–5, u vhalela zwithu 1–5, nomboro 1				
Nyito dza kiḽasi yoṱhe		**Nyito yo rangwaho phanḓa nga mugudisi**	**Nyito dza tshiṱitshini tsha u shumela**	
Ḓuvha ḽa 1	Kha vha ḓivhadze 2; tshiṱori tsha tshati ya luvhondoni ya mbalo.	U bula zwivhumbeo na muvhala wa zwithu zwa u vhalela ngazwo u bva kha *Khithi ya Zwishumiswa*.	**Nyito ya 1**	Themphuḽeithi ya suko ḽa u tambisa – kha vha vhumbe 2.
Ḓuvha ḽa 2	Tshivhumbeo ndi mini? Kha vha ḓivhadze tshitendeledzi.	Nyito ya tshitendeledzi – vhunzani.	**Nyito ya 2** **Nyito ya 3**	Migaṅdiso ya tshitendeledzi – pennde na zwifaredzi. Themphuḽeithi ya 'Phulethi' – u gera na u nambatedza
Ḓuvha ḽa 3	Wanani zwitendeledzi ngomu kiḽasini.	Magaraṱa a nomboro a tshithoma, zwifanyiso na zwiga 1 na 2.		zwifanyiso zwa zwiḽiwa.
Ḓuvha ḽa 4	Vhalelani miraḓo ya muvhili yo fhambanaho; tandulani ndinganyahuvhili mivhilini yaṋu.		**Nyito ya 4**	Dziphazili dza muvhili.
Ḓuvha ḽa 5	Tshitendeledzi (kha vha shumise phositara) na ndinganyahuvhili kha tshifanyiso.			

Week 5				
CONTENT AREA: SPACE AND SHAPE (GEOMETRY)				
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				
Whole class activities		**Teacher-guided activity**	**Workstation activities**	
Day 1	Introduce the square (vocabulary).	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).	**Activity 1**	Playdough with circle and square cookie cutter to make model.
Day 2	Properties of the square; difference between circle and square.		**Activity 2**	Cut out squares and paste to make a picture.
Day 3	Word problem (*Poster Book*) – square; find squares in the class.		**Activity 3**	Sorting square-shaped and circle-shaped objects.
Day 4	Directionality (forwards and backwards).		**Activity 4**	Puzzles (minimum six pieces).
Day 5	Make patterns with squares, colours.			

Vhege ya 5		
SIA ḼA MAGUDISWA: TSHIKHALA NA TSHIVHUMBEO (DZHOMEṰIRI)		
THERO: U vhona, u topola na u bula zwivhumbeo zwa 2-D (tshikwea); u vhambedza zwithu zwa 3-D na zwivhumbeo zwa 2-D (bogisi na tshikwea); sia: phanḓa/murahu; vhuimo: ngomu/nnḓa		
KHA VHA ḒIVHADZE NḒIVHO NTSWA: Tshikwea, masia (phanḓa/murahu), vhuimo (ngomu/nnḓa)		
NḒOWEDZO: Tshitendeledzi, u vhalela ha mutevhetsindo 1–5, u vhalela zwithu 1–5, ḓivhaipfi ya nomboro 1 na 2		
Nyito dza kiḽasi yoṱhe	**Nyito yo rangwaho phanḓa nga mugudisi**	**Nyito dza tshiṱitshini tsha u shumela**
Ḓuvha ḽa 1	Kha vha ḓivhadze tshikwea (ḓivhaipfi).	U vhalela ha mutevhetsindo/u fanyisa tshithoma, magaraṱa a nomboro 1 na 2.	**Nyito ya 1**	Suko ḽa u tambisa ḽi re na tshitendeledzi na tshithu tsha u tumula zwikontsi zwa tshikwea uri vha ite modele.
Ḓuvha ḽa 2	Vhunzani ha tshikwea; phambano vhukati ha tshitendeledzi na tshikwea.	U vhalela nga u kwama zwibuḽoko zwa Yunifikisi, u fhaṱa dzithawara dza Yunifikisi.	**Nyito ya 2**	U gera zwikwea na u nambatedza uri vha ite tshifanyiso.
Ḓuvha ḽa 3	Thaidzo ya ipfi (*Bugu ya Dziphositara*) – tshikwea; wanani zwikwea ngomu kiḽasini.	Vhunzani ha bogisi na tshikwea. Tshisagana tsha u phuphuledza (mabogisi na bola).	**Nyito ya 3**	U vhekanya zwithu zwa tshivhumbeo tsha tshikwea na zwa tshivhumbeo tsha tshitendeledzi.
Ḓuvha ḽa 4	Masia (phanḓa na murahu).	Nyito ya tshikwea tsha 2-D – u oledzela u mona na bogisi.	**Nyito ya 4**	Dziphazili (gumoṱuku ḽa zwipiḓa zwa rathi).
Ḓuvha ḽa 5	Itani dziphetheni nga zwikwea, mivhala.	Vhuimo (ngomu/nnḓa).		

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 u Linga ya Wekishopo ya 2

1. Wekishopo yo swikelela ndavhelelo dzavho?

   _____
   _____
   _____
   _____

2. Ndi zwifhio zwe vha guda kha iyi wekishopo zwe zwa vha thusesa?

   _____
   _____
   _____
   _____

3. Ho vhuya ha vha na zwiṅwe zwe vha si zwi takalele kana zwe vha konḓelwa u zwi pfesesa?

   _____
   _____
   _____
   _____

4. Vha ḓo shumisa hani zwe vha guda ngomu kiḽasirumuni yavho ya Gireidi ya Ṱ?

   _____
   _____
   _____
   _____

5. Vha na zwine vha tama u dzinginya u itela u khwinisa wekishopo dzi tevhelaho?

   _____
   _____
   _____
   _____