

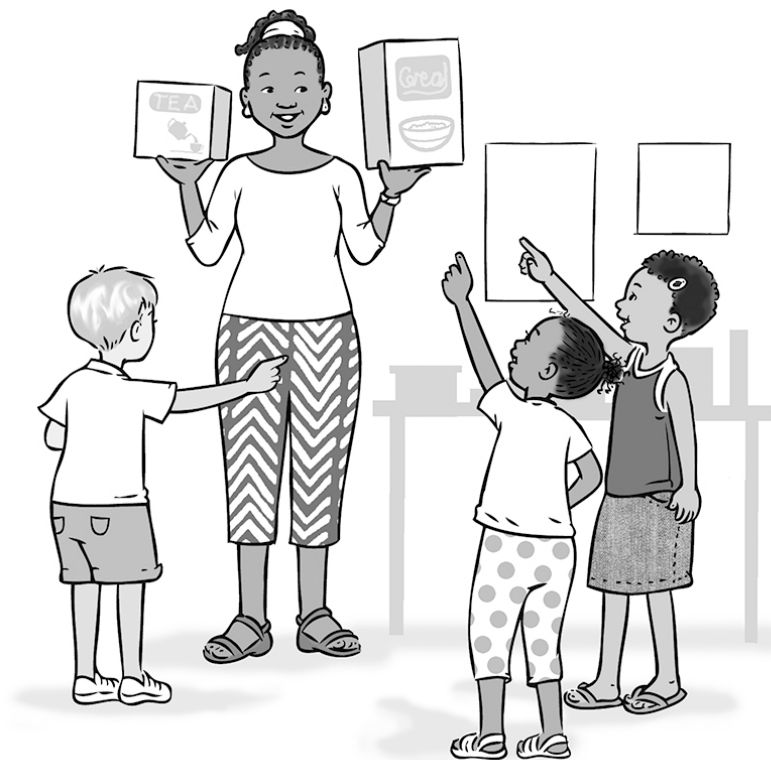


**GAUTENG PROVINCE**  
EDUCATION  
REPUBLIC OF SOUTH AFRICA

**GGT 2030**  
GROWING GAUTENG TOGETHER

IsiNdebele/English

# **Ihlelo lokuThuthukisa iimBalo zeGreyidi R Grade R Mathematics Improvement Programme**



**Isifundobandulo 5 • Workshop 5  
Umhlahandlela womKghonakalisi • Facilitator's Guide**

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**.

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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.

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- The R-Maths writing team: SDU staff and consultants.



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IPhrojekthi yokuThuthukiswa kweemBalo namaLimi kwaGreyidi R imuzamo womNyango wezeFundo weGauteng (Gauteng Department of Education) nombambisani wayo oqakathekileko, i-Gauteng Education Development Trust.

Ukwenziwa nokukhiqizwa kweensetjenziswa zebandulo nezetlasi zePhrojekthi yokuThuthukiswa kweemBalo namaLimi kwaGreyidi R kukghonakele ngomusa wokusekelwa ngemali yephrojekthi ebuya ku-United States Agency for International Development kunye ne-Zenex Foundation.

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### AMAGAMA WOKUTHOKOZA

Ukuthokoza okukhethekileko:

- Iinkhulu zePhiko labaNgophisi leKharikhyulamu, iPhiko labaNgophisi laboTitjhere bezeFundo nePhiko labaNgophisi leFundo eKhethekileko yomNyango wezeFundo weGauteng, ekutjhugululweni kwemetheriyali yethu.
- Abasebenzi nabotitjhere be-Western Cape Education Department (WCED) ngokufaka kwabo isandla epumelweni yokusetjenziswa kwe-Grade R Mathematics Programme (R-Maths) eTjhingalanga Kapa phakathi komnyaka we-2016 nowe-2019.
- Isiqhema sokutlola se-R-Maths: Abasebenzi nabathintanisi be-SDU.



Ihlelo lokuThuthukisa iimBalo zeGreyidi R lisuselwe ku-R-Maths, eyakhutjha kokuthoma yi-Schools Development Unit, University of Cape Town ngo-2017. Ilungelo lokukhuphela le-R-Maths liphethwe yi-University of Cape Town.

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# Overview

## Purpose

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

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

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

## Learning outcomes

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

## Workshop content

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

# Isirhunyezo

## Umnqopho

Lesi sifundobandulo sesihlanu kezilitjhumi nambili zeHlelo lokuThuthukisa iimBalo zeGreyidi R (IHlelo leemBalo), eliyingcenywe yomNyango wezeFundo weGauteng (Gauteng Department of Education (GDE)) iPhrojekthi yokuThuthukiswa kweemBalo namaLimi kwaGreyidi R.

Umnqopho wesifundobandulwesi kusiza abotitjhere ukusebenzisa iHlelo leemBalo ngematlasinabo, ukuqinisa ukuzwisisa kwabo ukufundisa nokufunda iinGaba zokuMumethweko ezenziwe ngeThemu 2 Iimveke 4–7 nokuzindla ngokobana bayisebenzisa njani imithethokambiso ehlahla ukufundisa iimbalo ngematlasini wabo.

Iintjengisi zeenGaba zokuMumethweko zeemBalo zakwaGreyidi R zithethwe kusiTatimende somGomo weKharikhyulamu nokuHlola (*i-CAPS*): *IimBalo zakwaGreyidi R (Umtlamo wokugcina)*, 2011, UmNyango wezeFundo esiSekelo, eSewula Afrika.

## Imiphumela yokufunda

- ◆ Ukuzindla ngokusetjenziswa kweThemu 1 Iveke 10 neThemu 2 Iimveke 1–3
- ◆ Ukuhlola amano wokusekela ukufundisa iimbalo kwaGreyidi R.
- ◆ Ukuzindla ngemithethokambiso ehlahla ukufundisa yeHlelo leemBalo
- ◆ Ukuzibandakanya nokumumethweko kweHlelo leemBalo kweThemu 2 Iimveke 4–7 (IsiKhala neBumbeko (Iijyomethri); Iinomboro, ama-Opharetjhini noBudlelwana; AmaPhetheni, amaFanktjhini ne-Aljibhra; nokuPhatha iDatha)
- ◆ Ukukhulumisana ngokutjheja nokuhlola okufaneleko kwaGreyidi R

## Okumumethweko kwesifundobandulo

- ◆ Ukuvula nokuzindla (I-iri 1)
  - ◆ Isetjhini 1: IsiKhala neBumbeko (Iijyomethri) (I-iri 1)
- ITIYE
- ◆ Isetjhini 2: Iinomboro, ama-Opharetjhini noBudlelwana (I-iri 1)
  - ◆ Isetjhini 3: AmaPhetheni, amaFanktjhini ne-Aljibhra (I-iri 1)
- ISIDLO SEMINI
- ◆ Isetjhini 4: UkuPhatha iDatha (I-iri 1)
  - ◆ Imisebenzi yokuvala (I-iri 1)

## Preparation

- ◆ PPT welcome and outcomes
- ◆ Read:
  - Concept Guide*, pages 114–131 and 136–137
  - Activity Guide: Term 2*, pages 18–21 and pages 70–137
  - Appendix A: Term 2 Weekly Content Summary (Weeks 4–7)
- ◆ Bring a large toy, e.g. a car, a doll.
- ◆ PPT: Data Handling cycle (from Workshop 4).
- ◆ For Session 4, prepare a pictograph chart, 'How did you travel to this workshop?' with picture cards for 'taxi', 'car', 'walk' and 'other' and 'smiley face' cards for each participant.

## Materials

- ◆ Flipchart paper, kokis
- ◆ *Resource Kit* for each group
- ◆ *Concept Guide*
- ◆ Collection of 3-D objects for each group (Session 2)
- ◆ Washing line and pegs for each group (Session 2)



## Amalungiselelo

- ◆ PPT Ukwamukelwa nemiphumela
- ◆ Funda:
  - UmHlahlandlela womQondo*, amakhasi 114–131 ne-136–137
  - UmHlahlandlela wemiSebenzi: Ithemu 2*, amakhasi 18–21 namakhasi 70–137
- Isithasiselo A: Ithemu 2 IsiRhunyezo sokuMumethweko kwaQobe yiVeke (Imveke 4–7)
- ◆ Yiza nesidlalisi esikhulu, isib. ikoloyana, unompopi.
- ◆ PPT: Umzombe wokuPhatha iDatha (Isifundobandulo 4).
- ◆ KweSetjhini 4, lungisa itjhadi yegrafu yeenthombe, 'Uze njani kusifundobandulo lesi?' namakarada wesithombe 'seteksi', 'sekoloyana', 'ukukhamba' 'nokhunye' 'namakarada wobuso obumomothekako' womhlanganyeli ngamunye.

## Imatheriyali

- ◆ Iphepha letjhadi eliphendlekako, amakhokhi
- ◆ *IKhidi yeenSetjenziswa* yesiqhema ngasinye
- ◆ *UmHlahlandlela womQondo*
- ◆ Ibutholelo lezinto ze-3-D lesiqhema ngasinye (Isetjhini 2)
- ◆ Idrada yokweneka namapheksi isiqhema ngasinye (Isetjhini 2)

# Opening and reflection

1 hour

## Facilitator's notes

- ◆ PPT: Open the session and read through the agenda and learning outcomes for the workshop.
- ◆ Remind participants of the *Take back to school* task from the end of Workshop 4.
- ◆ Ask participants to reflect on their observations and assessment of learners, and how they have been implementing the Maths Programme in their classrooms. Discuss what is working well and any concerns that participants may have.

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

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



### Activity 1

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

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

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

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

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## Amanothi womkghonakalisi

- ◆ PPT: Vula isetjhini bese ufunda i-ajenda yoke nemiphumela yokufunda yesifundobandulo.
- ◆ Khumbuza abahlanganyeli *ngoMsebenzi obuyiselwa esikolweni* wekupheleni kwesiFundobandulo 4.
- ◆ Bawa abahlanganyeli bazindle ngabakutjhejileko nangokuhlola kwabo abafundi, nokobana balisebenzise njani iHlelo leemBalo ngematlasini wabo. Khulumisanani ngalokho okusebenza kuhle nangokutshwenyeka abahlanganyeli abangaba nakho.

**Umthethokambiso wokufaka koke:** Boke abafundi kufanele bazizwe bamukelekile, bafakiwe begodu bathabele ukuhlanganyela. Khumbula ukuphatha boke abafundi ngokwanelisako nangehlonipho.

Zindla ngokusebenzisa kwakho iHlelo leemBalo ehlelweni lakho langamalanga bese wenza umsebenzi olandelako.



### Umsebenzi 1

Hlathulula ngeragelophambili lakho ngokusebenzisa *Umsebenzi obuyiselwa esikolweni* wesiFundobandulo 4.

1. Ngiliphi iragelophambili olitjhejileko kubafundi bakho ngemva kokwenza iThemu 1?

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2. Ilwazi leli 'Tjheja bonyana abafundi bayakwazi uku' *UmHlahlandlela wemiSebenzi: Ithemu 1* likusize njani ekuhloleni iragelophambili lomfundi ngamunye kuThemu 1?

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3. Ingabe urekhode iragelophambili lomfundi ngamunye ngepumelelo 'kuThemu 1: isiBonelo seRekhodi lokuHlola okuRagela phambili' emakhasini 190–193 *womHlahlandlela wemiSebenzi: Ithemu 1*?

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### Video 1

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

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

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### Facilitator's notes

- ◆ PPT: Summary of notes on rubrics, and Figure 39 and 40 of the *Concept Guide* (pages 106–109).
- ◆ Encourage participants to share their methods of assessment and how they use rubrics. Ask each group to write notes on flipchart paper and present these after **Activity 2**.
- ◆ Refer to the School Based Assessments (SBA) and SA-SAMS online systems to find out how participants engage with these.
- ◆ Remind participants of the **level principle** and discuss how they manage learners with different abilities.



### Activity 2

In your small groups, discuss:

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

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

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



## Ividiyo 1

Bukelani ividiyo katitjhere okhuluma ngokutjheja nangokuhlola ngetlasini yakhe yakwaGreyidi R.

Ucabanga bonyana ihloso iyini yomsebenzi lo? Yelela ngokukhethekileko bonyana utitjhere ubakhuthaza njani abafundi ngemibuzo nokobana abafundi ubatjheja njani ngamunye.

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### Amanothi womkghonakalisi

- ◆ PPT: Isirhunyezo samanothi ngamarhubhrikhi, Umdwebo 39 no-40 *womHlahlandlela womQondo* (amakhasi 106–109).
- ◆ Khuthaza abahlanganyeli babelane ngeendlela zokuhlola nokobana bawasebenzisa njani amarubhrikhi. Bawa isiqhema ngasinye sitlole amanothi etjhadini eliphendlekako bese bayawethula nabaqeda **Umsebenzi 2**.
- ◆ Qala *i-School Based Assessments* (SBA) namahlelo we-inthanethi we-SA-SAMS ukuthola bonyana abahlanganyeli bazibandakanya njani nalokhu.
- ◆ Khumbuza abahlanganyeli ngom**thethokambiso wezinga** bese bakhulumisana ngokobana babalawula njani nabafundi abanamakghono ahlukileko.



## Umsebenzi 2

Esiqhemeni senu esincani, khulumisanani:

1. Ukulawula njani ukuhlola ngetlasini yakho.
2. Uwasebenzisa njani amarubhrikhi ekambisweni yakho yokuhlola.
3. Uyihlanganisa njani *i-School Based Assessments* (SBA) namahlelo we-inthanethi we-SA-SAMS njengengcenywe yokuhlola kwakho.

Tlolani phasi amaphuzu aqakathhekileko wemikhulumiswano yenu ekuzakwabelwana ngawo nesiqhema soke. Yelela lokho okusebenza kuhle nalapho uneentjhijilo ezimayelana nokuhlola.

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**Umthethokambiso wezinga:** Abanye abafundi bangafuna ukujwayezwa nokusekelwa khulu kunabanye abafundi. Yenza isiqiniseko sokobana unikela abafundi isikhathi nesekelo elaneleko lokwenza imisebenzi, ukucabanga nokuphendula imibuzo.

# Session 1: Space and Shape (Geometry)

1 hour

## Facilitator's notes

- ◆ This workshop focuses on teaching the content of Term 2 Weeks 4–7. The Content Area Focus of Week 4 is Space and Shape (Geometry). Remind participants that this was also the focus of Term 2 Week 3 (covered in Workshop 4).
- ◆ Refer participants to pages 126–131 of the *Concept Guide*.
- ◆ Ask participants to work in groups to complete **Activity 3**.

## Term 2 Content overview: Space and Shape (Geometry)

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

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



### Activity 3

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

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## Facilitator's notes

- ◆ Ensure that participants identify the Space and Shape concepts in 3.1 and 3.2 and understand that the focus is on: position, orientation and views; describing 3-D objects in relation to themselves; following directions.
- ◆ In **Activity 4** the focus is on describing an object from different positions (views).
- ◆ In step 1 of **Activity 4**, show the participants the toy car or doll that you brought along (or a shoe or mug). Ask them to look at the object from different positions and to describe what they see. Ask them where they are in relation to the object e.g. *in front of, behind, next to, underneath, above*.

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

# Isetjhini 1: IsiKhala neBumbeko (Ijijomethri)

I-iri 1

## Amanothi womkghonakalisi

- ◆ Isifundobandulo lesi sinqophe ukufundisa okumumethweko kweThemu 2 Iimveke 4–7. UmNqopho wesiGaba sokuMumethweko weVeke 4 isiKhala neBumbeko (Ijijomethri). Khumbuza abahlanganyeli bonyana lokhu bekumnqopho godu weThemu 2 Iveke 3 (okwenziwe kusiFundobandulo 4).
- ◆ Layela abahlanganyeli amakhasi 126–131 *womHlahlandlela womQondo*.
- ◆ Bawa abahlanganyeli basebenze ndawonye ukwenza **Umsebenzi 3**.

## Ithemu 2 Isirhunyezo sokumumethweko: IsiKhala neBumbeko (Ijijomethri)

Isetjhini le inqophene nokufundisa okumumethweko kweThemu 2 Iveke 4 – IsiKhala neBumbeko (Ijijomethri). Khumbula bonyana isiKhala neBumbeko (Ijijomethri) bekumnqopho godu weVeke 3 owenziwe kusiFundobandulo 4.

Funda isirhunyezo sokumumethweko sesiKhala neBumbeko (Ijijomethri) emakhasini 126–131 *womHlahlandlela womQondo* bese wenza Umsebenzi 3.



### Umsebenzi 3

Ngimiphi imiqondo yesiKhala neBumbeko ethulwe ku-3.1 naku-3.2 yesirhunyezo sokumumethweko?

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## Amanothi womkghonakalisi

- ◆ Qinisekisa bonyana abahlanganyeli bafanisa imiqondo yesiKhala neBumbeko ku-3.1 naku-3.2 begodu bayezwisisa bonyana umnqopho ukilokhu: isikhundla, ubujamo nokuqaleka kwento; ukutlhadlhula izinto ze-3-D mayelana nazo ngokwazo; ngokulandela iinkombatjhuba.
- ◆ **Kumsebenzi 4** umnqopho usekutlhadlhuleni into eenkhundleni ezihlukileko (ukuqaleka kwento).
- ◆ Kugadango 1 **Umsebenzi 4**, khombisa abahlanganyeli ikoloyana yokudlalisa nofana unompopi ozenaye (nofana inyathelo nofana ibhigiri). Babawe baqale into eenkhundleni ezihlukileko bese batlhadlhula abakubonako. Babuze bonyana bakuphi ngokuya ngobujamo bento leyo isb. *ngaphambi kwe, ngemuva, eduze ne, ngaphasi, ngehla*.

KwaGreyidi R abafundi bayatlhadhula, bahlele ngamaneko bebamadanise izinto ze-3-D ngokunqophana nokufana nomehluko phakathi kwazo. NgeThemu 2 Iveke 4 abafundi bahlela ngamaneko, bamadanise bebatlhadhule izinto ze-3-D ngokuya ngobukhulu, umbala nokubumbeka. Baqala bebatlhadhule izinto mayelana nabo ngokwabo nomumye komunye nangobujamo neenkhundla ezihlukileko (ubujamo nokuqaleka kwento). Omunye umnqopho weVeke 4 usekulandeleni iinkombatjhuba nokusebenzisa ilwazimagama elikhambelana nesikhundla.



### Activity 4

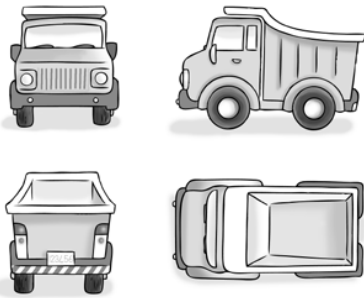
1. Discuss how you could use objects in your classroom to encourage learners to talk about their position in relation to the objects they are looking at.

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



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In front of the truck, looking at the side of the truck, behind the truck, looking down on the truck (from above).

### Term 2 Week 4

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



### Activity 5

1. Which Space and Shape concepts are presented?

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Position, orientation, views: objects look different when viewed from different positions.

Position vocabulary: *front, back, side, above, below, underneath*.

Sorting and identifying shapes.





### Umsebenzi 4

1. Hlathulula bonyana ungazisebenzisa njani izinto ngetlasini yakho ukukhuthaza abafundi bakhululume ngeenkundla zabo mayelana nezinto abaziqalileko.

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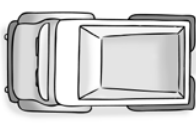


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2. Qala iinthombe lezi. Tlhdhlhula bonyana uzakujama kuphi kobana uzokubona koke ukuqaleka kwelori.




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(Ngaphambi kwelori, ukuqala ihlangothi lelori, ngemuva kwelori, ukuqala phasi elorini (ukuqala ilori ungaphezulu).

### Ithemu 2 Iveke 4

Qala umsebenzi ohlahlwa ngutitjhere emakhasini 80–83 womHlahlandlela wemiSebenzi: Ithemu 2.



### Umsebenzi 5

1. Ngimiphi imiqondo yesiKhala neBumbeko ethuliweko?

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Isikhundla, ubujamo, ukuqaleka kwento: izinto ziqaleka zihlukile lokha naziqalwa ngokweenkundla ezihlukileko.

Ilwazimagama lesikhundla: *ngaphambili, ngemuva, ngehla, ngenzasi, ngaphasi.*

Ukuhlela nokufanisa amabumbeko.

2. Give examples of guiding questions that are asked in the teacher-guided activities. Will these questions encourage learners to talk about the concepts in question 1?
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Learners need many opportunities to play with and sort collections of 3-D objects. Teachers need to understand the underlying concepts in Space and Shape (Geometry) and communicate these using the correct maths language.

The following points should be remembered.

- ◆ An object is three-dimensional (3-D). You can look at it from the top, the bottom and the sides. 3-D objects have length, breadth (width) and height.
- ◆ A shape is two-dimensional (2-D). Shapes include circles, triangles, squares and rectangles. They have length and breadth (width).
- ◆ As learners explore the properties of 3-D objects they will identify objects that 'look like' 2-D shapes, e.g. the door looks like a rectangle, the road sign looks like a triangle, the plate looks like a circle. They will start to understand that the surfaces of 3-D objects look like 2-D shapes.

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

## Term 2 Content Summary (Week 4)

### Facilitator's notes

- ◆ By this stage, participants will have engaged with the Weekly Content Summaries in previous workshops. It is important that they make the connection between the CAPS content, planning for a week and the activities for the small group sessions.
- ◆ Remind participants that they also need to plan free choice activities that are linked to the concepts being taught in the week.

2. Nikela iimbonelo zemibuzo ehlahlako ebuzwa emisebenzini ehlahlwa ngutitjhere. Ingabe imibuzo le izakukhuthaza abafundi bonyana bakhulume ngemiqondo yombuzo 1?
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Abafundi badinga amathuba amanengi wokudlala nokuhlela ngamananeko amabuthalelo wezinto ze-3-D. Abotitjhere kufanele bezwisise imiqondo esekelako yesiKhala neBumbeko (Ijiyomethri) bese bakhuluma ngalokhu ngokusebenzisa ilimi leembalo elifaneleko.

Amaphuzu alandelako kufanele akhunjulwe.

- ◆ Into ibusontathu (3-D). Ungayiqala uphezulu, ngaphasi nangemahlangothini. Izinto ze-3-D zinobude, ububanzi (ukululeka) nokuphakama.
- ◆ Ibumbeko libusombili (2-D). Amabumbeko afaka hlangana iindulungu, aboncantathu, iinkwere naboncamane. Anobude nobubanzi (ukululeka).
- ◆ Lokha abafundi nabahlola amatshwayo wezinto ze-3-D bazakufanisa izinto 'ezifana na' mabumbeko we-2-D, isib. umnyango ufana noncamane, amatshwayo wendlela afana noncantathu, ipuleyidi lifana nendulungu. Bazakuthoma ukuzwisisa bonyana ubunzizo bezinto ze-3-D bufana namabumbeko we-2-D.

**Umthethokambiso wokukhulumisana:** Ukufunda kubandakanya ukukhulumisana nokwabelana ngemibono. Ukuphendula ngendlela efaneleko entweni kuyingcanye eqakathekileko yokukhulumisana neyokufundisa nokufunda. Lalela abafundi ngaso soke isikhathi lokha nababelana ngemibono yabo nofana nabaphendula imibuzo yakho.

## Ithemu 2 Isirhunyezo sokuMumethweko (Iveke 4)

### Amanothi womkghonakalisi

- ◆ Kilesi isigaba, abahlanganyeli bazabe sele bazibandakanye neenRhunyezo zokuMumethweko kwaqobe yiVeke zemfundobandulo ezidlulileko. Kuqakathekile bonyana babone ubudlelwana obuphakathi kokumumethweko kwe-CAPS, ukuhlelela iveke nemisebenzi yamasetjhini weenqhema ezincani.
- ◆ Khumbuza abahlanganyeli bonyana godu kufanele bahlele imisebenzi yokuzikhethela ngokutjhaphulukileko ekhambisana nemiqondo efundiswe evekeni.



### Activity 6

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

1. What are the topics for Week 4?

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2. What new knowledge is introduced in this week?

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3. What skills from previous weeks are practised?

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## Umsebenzi 6

Qala Isithasiselo A: Ithemu 2 Isirhunyezo sokuMumethweko kwaQobe yiVeke (Iimveke 4–7). Funda isirhunyezo sokumumethweko kweVeke 4: IsiKhala neBumbeko (Iliyomethri) ikhasi 10 *UmHlahlandlela wemiSebenzi: Ithemu 2*.

1. Ngiziphi iinhloko zeVeke 4?

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2. Ngiliphi ilwazi elitjha elithulwe evekeni le?

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3. Ngiwaphi amakghono weemveke ezidlulileko ajayezwako?

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# Session 2: Numbers, Operations and Relationships

1 hour

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

## Facilitator's notes

- ◆ Explain that the focus in Term 2 Week 5 is on Numbers, Operations and Relationships again. Remind participants that this was also the focus of Term 2 Weeks 1 and 2 (covered in Workshop 4).
- ◆ Refer participants to pages 114–123 of the *Concept Guide*.
- ◆ Ask participants to work in groups to complete **Activity 7**.

## Term 2 Content overview: Numbers, Operations and Relationships

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



### Activity 7

What new numbers are introduced in Term 2?

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4 and 5

## Term 2 Week 5: Teaching number

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

## Facilitator's notes

- ◆ Ask participants to think back to how they introduced numbers in previous weeks.
- ◆ Reflect on how the same routine is used to introduce each new number. Explain that the number 'five' is introduced in Term 2 Week 5 using the same routine as before. Discuss how this routine actively engages learners in learning about the concept of number.
- ◆ Refer participants to page 90 of *Activity Guide: Term 2*.
- ◆ Let them complete **Activity 8** in groups and then report back.

# Isetjhini 2: Inomboro, ama-Opharetjhini noBudlelwana

I-iri 1

Umnqopho weThemu 2 Iveke 5 ziiNomboro, ama-Opharetjhini noBudlelwana.

## Amanothi womkghonakalisi

- ◆ Hlathulula bonyana umnqopho weThemu 2 Iveke 5 ziiNomboro, ama-Opharetjhini noBudlelwana godu. Khumbuza abahlanganyeli bonyana lokhu godu bekumnqopho weThemu 2 Iimveke 1 neye-2 (okwenziwe kusiFundobandulo 4).
- ◆ Layela abahlanganyeli amakhasi 114–123 *womHlahlandlela womQondo*.
- ◆ Bawa abahlanganyeli basebenze ngeenqhema ukwenza **Umsebenzi 7**.

## Ithemu 2 Isirhunyezo sokumumethweko: Inomboro, ama-Opharetjhini noBudlelwana

Iimfundobandulo ezidlulileko zethule umNqopho wesiGaba sokuMumethweko: Inomboro, ama-Opharetjhini noBudlelwana. Kilesetjhini godu siqala isirhunyezo sokumumethweko kweThemu 1–4 (*UmHlahlandlela womQondo*, amakhasi 114–123).



### Umsebenzi 7

Ngiziphi iinomboro ezitja ezethulwa ngeThemu 2?

4 naku-5

## Ithemu 2 Iveke 5: Ukufundisa inomboro

Inomboro 'kuhlanu' yethulwe ngeThemu 2 Iveke 5. IHlelo leemBalo likhuthaza ukusetjenziswa kweenomboro ebujameni obuhlukileko nokusetjenziswa kweenjamiseleli ezinengi, isib. itshwayo, igama, isithombe, amakarada wamaqhatjhazi, iimbalisi, ukuwahla. Ikambiso esetjenzisiwako ukwethula inomboro ngayinye ibandakanya abafundi ngekambiso ejayelekileko, ebonela phambili, ethabisako nethula inomboro ngeendlela ezihlukileko.

## Amanothi womkghonakalisi

- ◆ Bawa abahlanganyeli bacabange ngokobana bazethule njani iinomboro eemvekeni ezidlulileko.
- ◆ Zindla ngokobana ikambiso efanako isetjenziswa njani ukwethula inomboro etja ngayinye. Hlathulula bonyana inomboro 'kuhlanu' yethulwa ngeThemu 2 Iveke 5 ngokusebenzisa ikambiso efanako njengaphambili. Khulumisanani ngokobana ikambiso le ibandakanya abafundi ngokumajadu ekufundeni ngomqondo wenomboro.
- ◆ Layela abahlanganyeli ikhasi 91 *lomHlahlandlela wemiSebenzi: Ithemu 2*.
- ◆ Abenze **Umsebenzi 8** ngeenqhema bese babuyisa umbiko.

- ◆ Make sure that the following points about the routine are mentioned:
  - A story is told about an animal/s and used to build the number frieze.
  - Objects are collected to represent the number and put on the table in the maths area.
  - Learners match the number symbol and number word to dot cards, and also use a combination of dot cards to make the number.
  - Learners use body movements to dramatise the story.
  - The *Poster Book* provides opportunities to count and solve problems in context.
- ◆ The order of the items in the routine may change, but each week these aspects of introducing a number are included in the whole class activities.



### Activity 8

Refer to the Week 5 whole class activities in *Activity Guide: Term 2* (pages 90–99).

Describe the routine that is used to teach the number '5'.

Day 1

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Day 2

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Day 3

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Day 4

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Day 5

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- ◆ Qinisekisa bonyana amaphuzu alandelako amayelana nekambiso ayatjhiwo:
  - Indatjana ephathelene nesilwana/neenlwana iyacocwa begodu iyasetjenziswa ukwakha umhlobiso wenomboro.
  - Izinto ziyabuthelwa ukujamiselela inomboro bese zibekwa etafuleni endaweni yeembalo.
  - Abafundi bakhambelanisa amakarada wamatshwayo weenomboro neweenomboromagama namakarada wamaqatjhazi, begodu basebenzisa ihlanganisela yamakarada wamaqatjhazi ukwenza inomboro.
  - Abafundi basebenzisa imisikinyeko yomzimba ukulingisela indatjana.
  - *INcwadi yamaPhosta* inikela ngamathuba wokubala nokurarulula imiraro ebujameni.
- ◆ Irhemo lama-ayithemu ekambisweni lingatjhuguluka, kodwana evekeni ngayinye amaphuzu wokwethula inomboro la afakiwe emisebenzini yetlasi loke.



## Umsebenzi 8

Qala Iveke 5 imisebenzi yetlasi loke *kumHlahlandlela wemiSebenzi: Ithemu 2* (amakhasi 90–99).

Hlathulula ikambiso esetjenzisiweko ukufundisa inomboro '5'.

Ilanga 1

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Ilanga 2

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Ilanga 3

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Ilanga 4

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Ilanga 5

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## The number washing line

### Facilitator's notes

- ◆ Find out if participants have set up number washing lines in their classrooms.
- ◆ Review the importance of the number washing line activities in helping learners to build an understanding of the sequence of counting words and the relationship between numbers.

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

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

Use the number washing line to:

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

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

### Facilitator's notes

- ◆ Demonstrate how to use the number washing line.
- ◆ Refer participants to the washing line activity on page 94 of *Activity Guide: Term 2*.

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

### Video 2

*Activity Guide: Term 2, Week 5, Day 3 #4 (page 94)*

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

## Idrada yokweneka yeenomboro

### Amanothi womkghonakalisi

- ◆ Thola bonyana abahlanganyeli banazo iindarada zokweneka zeenomboro ngematlasini wabo na.
- ◆ Buyekeza ukuqakatheka kwemisebenzi yedrada yokweneka yeenomboro ekusizeni abafundi ukwakha ukuzwisisa ilandelano lamagama wokubala nobudlelwana phakathi kweenomboro.

Iinomboro 1 ukuya ku-5 bezibanjiswe ngamapheksi edradeni yokweneka yeenomboro endaweni yeembalo lokha nazithulwako ngeThemu 1. KuseVekeni 5 kwaphela lapho abafundi bazibandakanya ngokumajadu nedrada yokweneka yeenomboro. Abotitjhere abanengi babeka inambalayini ukusuka ku-0 ukuya ku-10 nofana ukuya ema-20 ngetlasini ngaphambi kobana abafundi bakwazi ukubala nofana ukukhumbula iinomboro lezi.

Ekuthomeni umnqopho weHlelo leembalo mayelana nedrada yokweneka yeenomboro wabe wenzeka ngokunganaki. Ukusukela ngeVeke 5 lisetjenziselwa ukunqophana nelandelano (Ukurhemisa) leenomboro nokukhuluma ngobudlelwana phakathi kweenomboro.

Sebenzisa idrada yokweneka yeenomboro uku:

- ◆ rhemisa nokumadanisa iinomboro isib.:
  - Ngiyiphi inomboro eza ngaphambi kwaka-3?
  - Ngiyiphi inomboro ephakathi kwaka-3 no-5?
  - Ngiyiphi inomboro eza ngemva kwaka-4?
- ◆ hlola bonyana iinomboro zingezeleleka njani ukusuka ngesinceleni ukuya ngesidleni, nokobana ziphunguka njani ukusuka ngesidleni ukuya ngesinceleni.
- ◆ sebenzisa ilimi leembalo njengokuthi *ngaphambili, ngemva, phakathi*.

Kuvidiyo umkghonakalisi ukhombisa umsebenzi wedrada yokweneka osekela ukufundisa inomboro.

### Amanothi womkghonakalisi

- ◆ Khombisa bonyana idrada yokweneka isetjenziswa njani.
- ◆ Layela abahlanganyeli umsebenzi wedrada yokweneka ekhasini 95 lomHlahlandlela wemiSebenzi: Ithemu 2.

Funda umsebenzi owethula idrada yokweneka kubafundi ekhasini 95 lomHlahlandlela wemiSebenzi: Ithemu 2.



### Ividiyo 2

UmHlahlandlela wemiSebenzi: Ithemu 2, Iveke 5, Ilanga 3 #4 (ikhasi 95)

Bukelani ividiyo katitjhere nakasebenzisa idrada yokweneka yeenomboro ukurhemisa iinomboro ukuthoma ku-1 ukuya ku-5. Yelela bonyana uwuhlela njani umsebenzi bese uyelela imibuzo ayibuzako ukukhuthaza abafundi.

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

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**Sequencing numbers:** Learners place the numbers in the correct counting order. Learners see the number line each day and during incidental discussions talk about each number.

**Order:** Learners discuss the numbers in relation to each other. The teachers asks which number comes before, after or between other numbers. Learners use correct maths language to describe the position of the numbers in relation to each other.

## Structure beads

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

### Facilitator's notes

- ◆ Discuss the 10-bead structure (five beads, five fingers). Demonstrate the use of a string of beads.
- ◆ Ask participants to take a set of 10 structure beads from the table.
- ◆ Using the information below, discuss the purpose of structure beads.

Structure beads help learners to:

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

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

Khuluma ngokuqakatheka kokusebenzisa idrada yokweneka yeenomboro kwaGreyidi R.

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**Ukulandelanisa iinomboro:** Abafundi babeka iinomboro ngendlela efaneleko yokubala. Abafundi babona inambalayini ngamalanga nangesikhathi semikhulumiswano enzeka ngokunganaki mayelana nenomboro ngayinye.

**Irhemo:** Abafundi bakhulumisana ngeenomboro ngokuhlobana kwazo. Abotitjhere babuza bonyana ngiyiphi inomboro eza kokuthoma, ngemuva, nofana phakathi kwezinye iinomboro. Abafundi basebenzisa ilimi elifaneleko leembalo ukutlhadlhula ngesikhundla seenomboro ngokuya ngokuhlobana kwazo.

## Umncamo ohlelekileko

Umncamo ohlelekileko ngaphakathi kwe-*Khidi yeenSetjenziswa* uza ngobude bemincamo eli-10 ohlelwe ngeenqhema zangahlanu, ngokuya ngombala (imincamo emihlanu ebovu nemincamo emihlanu esarulani).

### Amanothi womkghonakalisi

- ◆ Khulumisanani ngemincamo eli-10 ehlelekileko (imincamo emihlanu, imino emihlanu). Khombisa ukusetjenziswa komucu womncamo.
- ◆ Bawa abahlanganyeli bathathe isede yemincamo eli-10 ehlelekileko phezu kwetafula.
- ◆ Ngokusebenzisa ilwazi elingenzasi, khulumisanani ngehloso yemincamo ehlelekileko.

Imincamo ehlelekileko isiza abafundi uku:

- ◆ khumbula ngokuzenzakalelako inani lemincamo yesiqhema ngaphandle kokuyibala, isib. '4'.
- ◆ zwisisa bonyana inomboro eyodwa kungaba yihlanganisela yeenomboro ezinye ezimbili nofana ngaphezulu, isib. '4' wenziwa ngo-2 no-2 nofana ngo-1 no-3.
- ◆ thuthukisa amakghono wokubala ukusuka enomborweni enikelweko, isib. thoma ngo-3 bese uyabala ukuya ku-5.
- ◆ thoma ukusebenza ngokuhlanganisa nokukhupha.
- ◆ thoma ukusebenza ngamadlukuza wangalitjhumu.

Emsebenzini olandelako, sebenzisa imincamo yakho ehlelekileko eli-10 ukuhlola iihlanganisela ezihlukileko zenomboro. Landela umtlhala womkghonakalisi bese uphendula imibuzo njengombana ihleliwe Umsebenzi 9.



### Activity 9

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

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

#### Facilitator's notes

- ◆ Explain that participants will now work with their beads and that they should follow your directions and write down their responses.
- ◆ Ask them to work in groups to complete **Activity 10**.



### Activity 10

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

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Learners begin to show a total number of beads (e.g. 3) without having to count in ones.

They are able to show 'one more' or 'one fewer' than a stated amount without counting.

Learners recognise that one number is made up of different combinations of numbers (e.g. 5 consists of 2 and 3, or 1 and 2 and 2).

They begin to use the language of addition and subtraction and apply the concepts to combine/separate groups without counting.

The structure beads provide a physical experience of the total number of beads.



### Umsebenzi 9

1. Ngikhombisa imincamo emibili.
2. Ngikhombisa omunye umncamo owodwa ngaphezulu.
3. Ngikhombisa imincamo embadlwana ngamunye kunamine.
4. Ngikhombisa imincamo emine. Kwanjesi ngikhombisa ongaphezulu ngamunye kunemine. Mingaki onayo?
5. Wenzeni ukwenza ibe ngaphezulu ngamunye?
6. Ngikhombisa okumbadlwana ngakunye kunakuhlanu. Mingaki onayo?
7. Wenzeni ukwenza kube kuncani ngakunye?
8. Kwanjesi susa munye. Mingaki onayo?
9. Ngezelela ngamunye. Mingaki onayo?

Funda umsebenzi owethula imincamo ehlelekileko ekhasini 101 lomHlahlandlela wemiSebenzi: *Ithemu 2*, igadango 3. Ngeenqhema, khulumisanani ngomsebenzi lo.

<b>Amanothi womkghonakalisi</b>
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- ◆ Hlathulula bonyana abahlanganyeli kwanjesi bazakusebenza ngemincamo yabo nokobana kufanele balandele imilayelo yakho bese batlola phasi iimpendulo zabo.
- ◆ Babawe basebenze ngeenqhema ukwenza **Umsebenzi 10**.



### Umsebenzi 10

Umsebenzi lo womncamo ohlelekileko usiza njani ukuthuthukisa ikghono labafundi lokuzwisisa inomboro?

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Abafundi bathoma ukukhombisa inani elipheleleko lemincamo (isib. 3) ngaphandle kobana bayibale ngamunye.

Bayakwazi ukukhombisa 'ngaphezulu ngakunye' nofana 'mbadlwana ngakunye' kunenani elibekiweko ngaphandle kokubala.

Abafundi bakhumbula bonyana inomboro yinye yenziwa ngeenhlanguanisela ezihlukileko zeenomboro (isib. u-5 uno-2 no-3, nofana uno-1 no-2 no-2).

Bathoma ukusebenzisa ilimi lokuhlanguanisa nokukhupha bese basebenzisa imiqondo le ukuhlanganisa/ukuhlukanisa iinqhema ngaphandle kokubala.

Imincamo ehlelekileko inikela ilemuko eliphathekako lenani elipheleleko lemincamo.

### Facilitator's notes

- ◆ Discuss the importance of planning in order to allow learners enough time to practise their new skills and knowledge (the **practice principle**).

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

## Term 2 Content Summary (Week 5)

### Facilitator's notes

- ◆ Remind participants that they also need to plan free choice activities that are linked to the concepts being taught in the week.



### Activity 11

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

1. What are the topics for Week 5?

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2. What new knowledge is introduced in this week?

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3. What skills from previous weeks are practised?

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



## Amanothi womkghonakalisi

- ◆ Khulumisanani ngokuqakatheka kokuhlela ngendlela enikela abafundi isikhathi esaneleko sokuzijayeza amakghono nelwazi labo elitjha (**umthethokambiso wokujayeza**).

**Umthethokambiso wokujayeza:** Abafundi kufanele babe nesikhathi esinengi sokuzijayeza amakghono nelwazi elitjha. Lokha abafundi nabazijayeza njalo ngalokho esele bakufundile, babangcono kikho bese babanokuzithemba okungezelelekileko. Bayakuthabela ukubuyelela nokujayeza.

## Ithemu 2 Isirhunyezo sokuMumethweko (Iveke 5)

### Amanothi womkghonakalisi

- ◆ Khumbuza abahlanganyeli bonyana godu kufanele bahlele imisebenzi yokuzikhethela ngokutjhaphulukileko ekhambisana nemiqondo efundisiweko evekeni.



### Umsebenzi 11

Qala Isithasiselo A: Ithemu 2 Isirhunyezo sokuMumethweko kwaQobe yiVeke (Imveke 4–7). Funda isirhunyezo sokumumethweko kweVeke 5: Iinomboro, ama-Opharetjhini noBudlelwana ekhasini 19 *lomHlahlandlela wemiSebenzi: Ithemu 2*.

1. Ngiziphi iinhloko zeVeke 5?

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2. Ngiliphi ilwazi elitjha elithulwe evekeni le?

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3. Ngiwaphi amakghono weemveke ezidlulileko ajayezwako?

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4. Khambelanisa imisebenzi yesiThasiselo A: Ithemu 2 IsiRhunyezo sokuMumethweko kwaqobe yiVeke (Imveke 4–7) neemfundo zeveke ngayinye.

# Session 3: Patterns, Functions and Algebra 1 hour

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

## Facilitator's notes

- ◆ Explain that the focus in Term 2 Week 6 is on Patterns, Functions and Algebra. Remind participants that this was also the focus of Term 1 Week 6 (covered in Workshop 3).
- ◆ Refer participants to page 124 of the *Concept Guide*.
- ◆ Ask participants to work in groups to complete **Activity 12**.

## Term 2 Content overview: Patterns, Functions and Algebra

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



### Activity 12

1. What concepts are covered in Term 2?

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

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## Term 2 Week 6: Describe, copy and extend patterns

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

In Term 2 Week 6 learners:

- ◆ describe the repeat in patterns using objects, pictures and sounds.
- ◆ copy patterns that others have made with objects, pictures and sounds.
- ◆ extend patterns that others have made.
- ◆ create their own patterns at various levels of difficulty such as:

# Isetjhini 3: AmaPhetheni, amaFanktjhini ne-Aljibhra

I-iri 1

Umnqopho weThemu 2 Iveke 6 maPhetheni, amaFanktjhini ne-Aljibhra.

## Amanothi womkghonakalisi

- ◆ Hlathulula bonyana umnqopho weThemu 2 Iveke 6 maPhetheni, amaFanktjhini ne-Aljibhra. Khumbuza abahlanganyeli bonyana lokhu godu bekumnqopho ngeThemu 1 Iveke 6 (okwenziwe kusiFundobandulo 3).
- ◆ Layela abahlanganyeli ikhasi 125 *lomHlahlandlela womQondo*.
- ◆ Bawa abahlanganyeli basebenze ngeenqhema ukwenza **Umsebenzi 12**.

## Ithemu 2 Isirhunyezo sokumumethweko: AmaPhetheni, amaFanktjhini ne-Aljibhra

Qala amaPhetheni, amaFanktjhini ne-Aljibhra kusirhunyezo sokumumethweko (*UmHlahlandlela womQondo*, ikhasi 125).



### Umsebenzi 12

1. Ngimiphi imiqondo eyenziwe ngeThemu 2?

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2. Khuyini umahluko phakathi kokumumethweko kweHlelo leemBalo nokumumethweko kwe-CAPS?

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## Ithemu 2 Iveke 6: Ukutlhadlhula, ukukopa nokunabisa amaphetheni

KusiFundobandulo 3, umnqopho wamaPhetheni, amaFanktjhini ne-Aljibhra bewuphathelene nokukhumbula/ukufanisa ukubuyelela kuphetheni. Godu sikhulumisene nangomahluko phakathi kwelandelano nephetheni. Ithemu 2 Iveke 6 yakhela phezu kokumumethweko okwethulwe ngeThemu 1 Iveke 6.

NgeThemu 2 Iveke 6 abafundi ba:

- ◆ tladlhula ngokubuyelela kumaphetheni ngokusebenzisa izinto, iinthombe namatjhada.
- ◆ kopa amaphetheni enziwe ngabanye ngezinto, iinthombe namatjhada.
- ◆ nabisa amaphetheni enziwe ngabanye.
- ◆ kha amaphetheni wabo emazingeni ahlukehlekileko wobudisi njenge:

- circle, square; circle, square
  - circle, square, triangle; circle, square, triangle
  - circle, circle, square; circle, circle, square
  - red circle, blue circle, yellow square; red circle, blue circle, yellow square.
- ◆ tell what is missing when part of a pattern is hidden.

### Facilitator's notes

- ◆ Think back to Workshop 3: Identifying patterns. Use the attribute blocks and the *Poster Book*. Discuss the difference between a sequence of objects, pictures or events, and what makes a pattern. Remind participants that a pattern requires the repeating of a sequence. Demonstrate this aspect.
- ◆ Have participants work in groups to complete **Activity 13**.



### Activity 13

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

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

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Identifying patterns, using whole body, identifying patterns in the *Poster Book* picture.  
Copy and extend own and others' patterns.  
Explain why it is a pattern or not a pattern.

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

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## Term 2 Content Summary (Week 6)

### Facilitator's notes

- ◆ Ensure that participants make the connection between CAPS and the weekly planning for Week 6, e.g. the Topic and Term 2 content are from CAPS, with some additional content added for the Maths Programme.
- ◆ Discuss why number is also included in a week where the focus is Patterns, Functions and Algebra. Explain that although the content focus is on pattern, we need to practise number every day through whole class and teacher-guided activities.
- ◆ Remind participants to include all concepts incidentally during the daily programme, e.g. the sequence of activities in the daily programme and days of the week are measurement concepts (time), while lining up – first, second, third – are number concepts (ordinal numbers).

- indulungu, isikwere; indulungu, isikwere
- indulungu, isikwere, uncantathu; indulungu, isikwere uncantathu
- indulungu, indulungu, isikwere; indulungu, indulungu, isikwere
- indulungu ebovu, indulungu elijuba, isikwere esisarulani; indulungu ebovu, indulungu elijuba, isikwere esisarulani.

◆ tjho bonyana khuyini okungekho lokha ingceny yepetheni nayifihliweko.

### Amanothi womkghonakalisi

- ◆ Cabanga ngesiFundobandulo 3: Ukufanisa amaphetheni. Sebenzisa amabhlogo we-athribhuthi *neNcwadi yamaPhosta*. Khulumisanani ngomehluko phakathi kwelandelano lezinto, iinthombe nofana izehlakalo, nokobana khuyini okwenza iphetheni. Khumbuza abahlanganyeli bonyana iphetheni ifuna ukubuyelelwa kwelandelano. Khombisa leliphuзу.
- ◆ Abahlanganyeli abasebenze ngeenqhema ukwenza **Umsebenzi 13**.



### Umsebenzi 13

Qala Iveke 6 kumHlahlandlela wemiSebenzi: Ithemu 2 (amakhasi 104–119).

1. Khulumisanani ngokobana imisebenzi yetlasi loke izethula njani iimfundo zepetheni.

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Ukufanisa amaphetheni, ukusebenzisa umzimba woke, ukufanisa amaphetheni esithombeni *seNcwadi yamaPhosta*.

Ukukopa nokunabisa amaphetheni wakho newabanye.

Ukuhlathulula bonyana kubayini kuyiphetheni nofana kungasi yiphetheni.

2. Funda igadango 5 nele- 6 womsebenzi ohlahlwa ngutitjhere ekhasini 117. Utitjhere uyihlela njani imisebenzi begodu ubahlahla njani abafundi ngemibuzo?

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### Ithemu 2 IsiRhunyezo sokuMumethweko (Iveke 6)

#### Amanothi womkghonakalisi

- ◆ Qinisekisa bonyana abahlanganyeli benza ubudlelwana phakathi kwe-CAPS nokuhlela kwaqobe yiveke kweVeke 6, isib. isihloko nokumumethweko kweThemu 2 kubuya ku-CAPS, nokhunye okumumethweko okungezelelelwe iHlelo leemBalo.
- ◆ Khulumisanani ngokobana kubayini inomoro ifakiwe nayo evekeni lapho umnqopho umaPhetheni, amaFanktjhini ne-Aljibhra. Hlathulula bonyana nanyana umnqopho wokumumethweko uyiphetheni, kufanele sizijayeze inomoro ngamalanga ngemisebenzi yetlasi loke nehlahlwa ngutitjhere.
- ◆ Khumbuza abahlanganyeli bafake hlangana yoke imiqondo ngokungatjhejekiko ngesikhathi sehlelo langamalanga, isib. ilandelano lemisebenzi ehlelweni langamalanga namalanga weveke amiqondo yokumeda (isikhathi), lokha nabarhemako – wokuthoma, wesibili, wesithathu – kumiqondo yenomoro (iinomborosikhundla).



### Activity 14

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

1. What are the topics for Week 6?

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2. What new knowledge is introduced in this week?

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3. What skills from previous weeks are practised?

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



## Umsebenzi 14

Qala Isithasiselo A: Ithemu 2 Isirhunyezo sokuMumethweko kwaQobe yiVeke (Iimveke 4–7). Funda isirhunyezo sokumumethweko kweVeke 6: AmaPhetheni, amaFanktjhini ne-Aljibhra ekhasini 21 *lomHlahlandlela wemiSebenzi: Ithemu 2*.

1. Ngiziphi iinhloko zeVeke 6?

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2. Ngiliphi ilwazi elitjha elithulwe evekeni le?

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3. Ngiwaphi amakghono weemveke ezidlulileko ajayezwako?

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4. Khambelanisa imisebenzi yesiThasiselo A: Ithemu 2 IsiRhunyezo sokuMumethweko kwaqobe yiVeke (Iimveke 4–7) neemfundo zeveke ngayinye.

# Session 4: Data Handling

1 hour

The focus of Term 2 Week 7 is Data Handling.

## Facilitator's notes

- ◆ Explain that the focus in Term 2 Week 7 is on Data Handling. Remind participants that this was also the focus of Term 1 Week 10 (covered in Workshop 4).
- ◆ Refer participants to page 136 of the *Concept Guide*.
- ◆ Ask participants to work in groups to complete **Activity 15**.

## Term 2 Content overview: Data Handling

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



### Activity 15

1. What concepts are covered in Term 2?

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

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## Facilitator's notes

- ◆ Explain to participants that the Data Handling Content Area for Grade R focuses on the purpose and process of data handling. It involves solving a problem or answering a question by collecting, sorting, representing and interpreting data.
- ◆ Collecting and sorting (classifying) data is only part of the data handling process. If teachers do not keep the focus on answering the question, the activity is simply about sorting.
- ◆ Direct participants to follow the data handling process and name the different steps in the process:
  1. Pose a question.
  2. Collect the data (discuss the best way of doing this).
  3. Sort the data.
  4. Represent that data.
  5. Analyse the data.
  6. Report on the data (answer the question).
- ◆ Let participants to work in groups to complete **Activity 16**.
- ◆ Ask one group to present their activity.



# Isetjhini 4: UkuPhatha iDatha

I-iri 1

Umnqopho weThemu 2 Iveke 7 kuPhatha iDatha.

## Amanothi womkghonakalisi

- ◆ Hlathulula bonyana umnqopho kuThemu 2 Iveke 7 kuPhatha iDatha. Khumbuza abahlanganyeli bonyana lokhu godu bekumnqopho weThemu 1 Iveke 10 (owenziwe kusiFundobandulo 4).
- ◆ Layela abahlanganyeli ikhasi 137 *lomHlahlandlela womQondo*.
- ◆ Bawa abahlanganyeli basebenze ngeenqhema ukwenza **Umsebenzi 15**.

## Ithemu 2 Isirhunyezo sokumumethweko: UkuPhatha iDatha

Qala ukuPhatha iDatha kusirhunyezo sokumumethweko (*UmHlahlandlela womQondo*, ikhasi 137).



### Umsebenzi 15

1. Ngimiphi imiqondo eyenziwe ngeThemu 2?

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2. Khuyini umahluko phakathi kokumumethweko kweHlelo leemBalo nokumumethweko kwe-CAPS?

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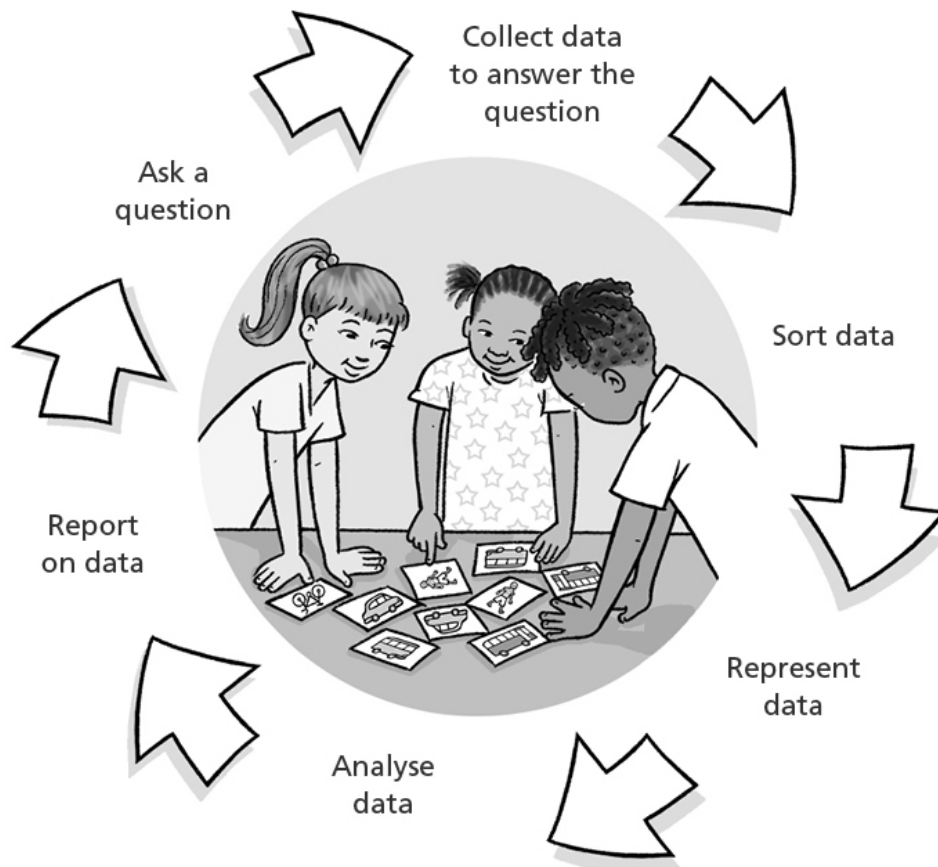
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## Amanothi womkghonakalisi

- ◆ Hlathululela abahlanganyeli bonyana isiGaba sokuMumethweko sokuPhatha iDatha kwaGreyidi R sinqophene nehloso kunye nekambiso yokuPhatha iDatha. Kubandakanya ukurarulula umraro nofana ukuphendula umbuzo ngokubuthelela, ukuhlela, ukujamiselela nokurhumutjha idatha.
- ◆ Ukubuthelela nokuhlela ngamaneko (ukuhlukanisa) idatha kuyingcenywe kwaphela yekambiso yokuPhatha iDatha. Nangabe abotijhere abanqophani nokuphendula imibuzo, umsebenzi uba ngokuhlela ngamaneko kwaphela.
- ◆ Layela abahlanganyeli balandele ikambiso yokuPhatha iDatha bese batjho amagadango ahlukileko ekambisweni:
  1. Buza umbuzo.
  2. Buthelela idatha (khulumisanani ngendlela engcono yokwenza lokhu).
  3. Hlela idatha ngamaneko.
  4. Jamiselela idatha leyo.
  5. Hlaziya idatha.
  6. Bika ngedatha (phendula umbuzo).
- ◆ Abahlanganyeli abasebenze ngeenqhema ukwenza **Umsebenzi 16**.
- ◆ Bawa isiqhema esisodwa sethule umsebenzi waso.

## Data Handling

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



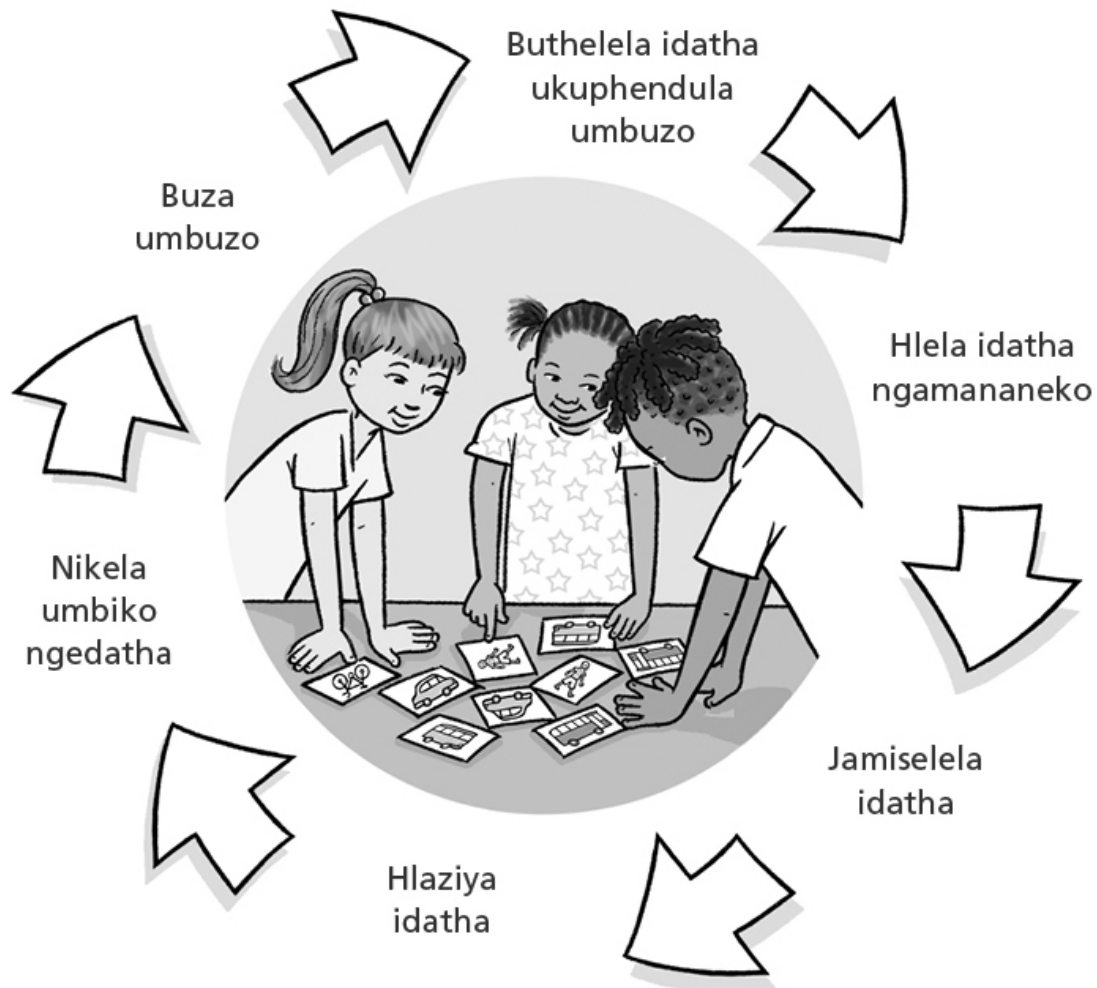
In Grade R learners should have many opportunities to sort objects according to one or more attributes, such as colour, size or shape. Sorting is part of Data Handling, but it is not the only focus. It is important to always bring the learners back to the question that has been posed and the reason why they are collecting, sorting and thinking of ways to represent the data.

Questions are key to Data Handling, e.g.:

- ◆ I wonder which coldrink most learners like?
- ◆ How should we collect our data?

## UkuPhatha iDatha

IsiGaba sokuMumethweko ngokuPhatha iDatha siqophene nehloso nekambiso yokuphatha idatha. Sibandakanya ukurarulula umraro nofana ukuphendula umbuzo ngokubuthelela, ukuhlela, ukujamiselela nokurhumutjha idatha.



KwaGreyidi R abafundi kufanele babe namathuba amanengi wokuhlela izinto ngokuya ngokwe-athribhuthi linye nofana angaphezulu, njengombala, ubukhulu nofana ukubumbeka. Ukuhlela ngamananeko kuyingcenywe yokuPhatha iDatha kodwana akusiwo wodwa umnqopho. Kuqakathekile ukuhlala ubuyisela abafundi emuva embuzweni obuziweko nesizathu sokobana kubayini babuthelela, bahlela begodu bacabanga ngeendlela zokujamiselela idatha.

Imibuzo iqakathekile ukuPhatha iDatha, isib.:

- ◆ Ngiyazibuza bonyana ngisiphi isiselo esimakhaza abafundi abasithandako?
- ◆ Singayibuthelela njani idatha yethu?

- ◆ How should we sort the data?
- ◆ How should we represent the data?



### Activity 16

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

### Representing data

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

## Term 2 Content Summary (Week 7)



### Activity 17

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

1. What are the topics for Week 7?

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2. What new knowledge is introduced in this week?

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3. What skills from previous weeks are practised?

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- ◆ Kufanele siyihlele njani idatha ngamananeko?
- ◆ Kufanele siyijamiselele njani idatha?



### Umsebenzi 16

Khulumisanani ngokobana ningawuhlela begodu niwenze njani umsebenzi wokuPhatha iDatha ngokuya ngokwemibuzo engehla. Rekhoda imibono yakho ephepheni eliphendlekako.

### Ukujamiselela idatha

Abafundi bakwaGreyidi R bahlola iindlela ezihlukileko zokukhombisa nofana zokuveza ilwazi ebalibuthetheleko. **Igrafu yeenthombe** iyindlela yokujamiselela idatha ngokusebenzisa iinthombe. Emsebenzini wetlasi loke Ilanga 3 Iveke 7, abafundi bakhuluma ngokobana beza njani esikolweni. Umfundi ngamunye unikelwe ubuso obumomothekako **eenquntwini zephepha ezilingana poro ngobukhulu**. Bakhombisa idatha ngokubeka isithombe sabo ngaphakathi kwekholomu ukujamiselela imihlobo emine yeenthuthi ezihlukileko. Kuqakathekile ukubeka idatha ngaphakathi kwamakholomu, **kungabi neenkhalaphakathi** kweenquntu zephepha. Idatha ijanyiselelwe ngokucacileko begodu kulula ukuyirhumutjha kobana kuphendulwe umbuzo: 'Abafundi abanengi beza njani esikolweni?'

## Ithemu 2 Isirhunyezo sokuMumethweko (Iveke 7)



### Umsebenzi 17

Qala Isithasiselo A: Ithemu 2 Isirhunyezo sokuMumethweko kwaQobe yiVeke (Iimveke 4–7). Funda isirhunyezo sokumumethweko kweVeke 7: UkuPhatha iDatha ekhasini 21 lomHlahlandlela wemiSebenzi: Ithemu 2.

1. Ngiziphi iinhloko zeVeke 7?

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2. Ngiliphi ilwazi elitjha elithulwe evekeni le?

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3. Ngiwaphi amakghono weemveke ezidlulileko ajayezwako?

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4. Match the activities in Appendix A: Term 2 Weekly Content Summary (Weeks 4–7) with the lessons in each week.
5. Refer to the teacher-guided activity in Week 7 (*Activity Guide: Term 2*, page 132). Discuss how the teacher guides the learners to sort the animals and then represent the data on a grid.

4. Khambelanisa imisebenzi yesiThasiselo A: Ithemu 2 IsiRhunyezo sokuMumethweko kwaqobe yiVeke (Iimveke 4–7) neemfundo zeveke ngayinye.
5. Qala imisebenzi ehlahlwa ngutitjhere Iveke 7 (*UmHlahlandlela wemiSebenzi: Ithemu 2*, ikhasi 133). Khulumisanani ngokobana utitjhere ubahlahla njani abafundi kobana bahlele iinlwana ngamananeko bese bajamiselela idatha kugridi.

# Closing activities

1 hour

## Facilitator's notes

- ◆ **Lessons learnt:** Ask participants to think about what they have learnt during the workshop and to complete **Activity 18** 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 18

**Lessons learnt:** Think about what you learnt during the workshop and complete the table.

Things I am already doing that work well	New ideas that I would like to try



### Take back to school task

1. Continue to use the Record of Continuous Assessments in *Activity Guide: Term 2* to assess your learners. Make use of your ongoing observation notes to build up evidence of what learners understand and can do.
2. Identify any concerns you have about individual learner's emerging grasp of maths concepts.
3. Bring copies of rubrics that you have used for maths assessment to the next workshop.
4. Bring a completed assessment record for one learner to the next workshop.



## Amanothi womkghonakalisi

- ◆ **Iimfundo ezifundiweko:** Bawa abahlanganyeli bacabange ngalokho abakufundileko ngesikhathi sesifundobandulo nokobana baqedelele **Umsebenzi 18** ngamunye.
- ◆ **Umsebenzi obuyiselwa esikolweni:** Funda umsebenzi lo woke. Buza nangabe kukhona ongakuzwisisi kuhle nokufuna ihlathululo enabileko.
- ◆ **Ukuhlunga:** Khupha amakhophi weFomo lokuHlunga lesiFundobandulo bese unikela abahlanganyeli bawazalise.
- ◆ **Isifundobandulo esilandelako:** Nikela amalanga wesifundobandulo esilandelako bese uvala isifundobandulo.



## Umsebenzi 18

**Iimfundo ezifundiweko:** Cabanga ngalokho okufundileko ngesikhathi sesifundobandulo bese uqedelela ithebula.

Izinto engizenzako ezisebenza kuhle	Imibono emitjha engingathanda ukuyizama



## Umsebenzi obuyiselwa esikolweni

1. Ragela phambili nokusebenzisa iRekhodi lokuHlola okuRagela phambili *kumHlahlandlela wemiSebenzi: Ithemu 2* ukuhlola abafundi bakho. Sebenzisa amanothi wakho wokutjheja kwakho okuragako ukwakha ubufakazi balokho abafundi abakuzwisisako nalokho abakwazi ukukwenza.
2. Tshwaya nofana ngikuphi okukutshwenyako mayelana nomfundi ngamunye othoma ukuzwisisa imiqondo yeembalo.
3. Letha amakhophi wamarubhriki owasebenzisileko ukuhlola iimbalo kusifundobandulo esilandelako.
4. Letha amarekhodo aphelileko wokuhlola womfundi munye kusifundobandulo esilandelako.

5. Use *Activity Guide: Term 2* to plan and implement Weeks 4–7 of the Maths Programme, including creating a maths area with a focus on the concept for each week.
6. Make notes on what worked well, what did not work so well and what you could do differently to improve teaching and learning.

### **Evaluation**

Complete the Evaluation Form.

5. Sebenzisa *UmHlahlandlela wemiSebenzi: Ithemu 2* ukhlela nokusebenzisa imveke 4–7 zeHlelo leemBalo, ukufaka hlangana ukwakha indawo yeembalo ngokunqopha umqondo weveke ngayinye.
6. Yenza amanothi ngalokho okusebenze kuhle, lokho okungakasebenzi kuhle nalokho ongakwenza ngokuhlukileko ukuthuthukisa ukufundisa nokufunda.

### **Ukuhlunga**

Zalisa iForomo lokuHlunga.

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

### Term 2: Activity Plan

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

**ISITHASISELO A: ITHEMU 2 ISIRHUNYEZO SOKUMUMETHWEKO KWAQOBE YIVEKE (IIMVEKE 4-7)**

**Ithemu 2: Ihlelo lomsebenzi**

<b>Iveke 4</b>			
<b>ISIGABA SOKUMUMETHWEKO: ISIKHALA NEBUMBeko (IJIYOMETHRI)</b>			
<b>ISIHLOKO: Isikhundla, ubujamo nokuqaleka kwento; thadhlhula, hlela bese umadanisa izinto ze-3D</b>			
<b>UKWETHULA ILWAZI ELITJHA:</b> Hlela izinto ze-3-D ngokuya ngokufana nokuhluka, ngaphezulu ngalinye, kuncani ngakunye			
<b>UKUJAYEZA:</b> Ukubala ngomlomo 1-15 naku-5-1, ukubala izinto 1-7, umqondo wenomboro 1-4, ukugandelela woke amabumbeko			
<b>Imisebenzi yetlasi loka</b>		<b>Imisebenzi ehlahlwa ngutitjhere</b>	<b>Imisebenzi yesitetjhi sokusebenzela</b>
<b>Ilanga 1</b>	Ukuqinisa woke amabumbeko/ukuzuma amabumbeko.	Jayeza 1-4. Ukutlhadhlhula into ukusuka eenkhundleni ezihlukileko. Ukujayeza amabumbeko neenkhundla.	<b>Umsebenzi 1</b>
<b>Ilanga 2</b>	Umgodlana wokuzwelela – ukuzwelela amabumbeko ahlukileko nokuwatlhadhlhula.		<b>Umsebenzi 2</b>
<b>Ilanga 3</b>	Thola amabumbeko ngetlasini ngokusebenzisa amagama wesikhundla.		<b>Umsebenzi 3</b>
<b>Ilanga 4</b>	Abasetjhi bamabumbeko. Ngaphezulu ngakunye, ncani ngakunye.		<b>Umsebenzi 4</b>
<b>Ilanga 5</b>	Ikombatjhuba nesikhundla. Umdlalo osiqabo.		
<b>Iveke 5</b>			
<b>ISIGABA SOKUMUMETHWEKO: IINOMBORO, AMA-OPHARETJHINI NOBUDLELWANA</b>			
<b>ISIHLOKO: Khumbula amatshwayo wenomboro namagama wenomboro; thadhlhula, rhemisa bese umadanisa iinomboro</b>			
<b>UKWETHULA ILWAZI ELITJHA:</b> Yethula inomboro 5			
<b>UKUJAYEZA:</b> Ukubala ngomlomo 1-15, ukubala izinto 1-7, ukubala ubuyele emuva ukusuka ku-5 (imilolozelo), gandelela imiqondo yenomboro 1-4, ukulandelanisa iinomboro 1-4, ngaphezulu/kumbadlwana			
<b>Imisebenzi yetlasi loka</b>		<b>Imisebenzi ehlahlwa ngutitjhere</b>	<b>Imisebenzi yesitetjhi sokusebenzela</b>
<b>Ilanga 1</b>	Yethula u-5 (iinkhabu ezihlanu ngendlini yesihlanu).	Khambelanisa amatshwayo weenomboro, iinomboromagama namakarada wamaqatjhazi (4 na-5). Ukubala 1-7. Linganisa bese uyabala. Imincamo ehlelekileko. Ukwakheka okuhlukileko kwenomboro efanako.	<b>Umsebenzi 1</b>
<b>Ilanga 2</b>	Gandelela u-4no-5 (amatshwayo wenomboro namagama wenomboro).		<b>Umsebenzi 2</b>
<b>Ilanga 3</b>	Ukubala ukuya phambili nokuya emuva. Inambalayini.		<b>Umsebenzi 3</b>
<b>Ilanga 4</b>	Gandelela u-4 no-5.		<b>Umsebenzi 4</b>
<b>Ilanga 5</b>	Gandelela iinomboro 1-5 (amakarada wamaqatjhazi, amatshwayo wenomboro, iinomboromagama zokukhunjulwa).		

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

<b>Iveke 6</b>			
<b>ISIGABA SOKUMUMETHWEKO:</b> AMAPHETHENI, AMAFANKTJHINI NE-ALJIBHRA			
<b>ISIHLOKO:</b> Ukukopa nokunabisa amaphetheni alula abuyelelako; ukwakha amaphetheni wakho; ukutlahlhula ukubuyelela kumaphetheni			
<b>UKWETHULA ILWAZI ELITJHA:</b> Ukukopa nokunabisa amaphetheni alula, ukwakha nokuhlathulula amaphetheni wakho, ukubala ngomlomo 1-20, ukubala ubuyele emuva ukusuka ku-7			
<b>UKUJAYEZA:</b> Ukulandelanisa iinomboro 1-5, ukubala izinto 1-7, ukwenza iinqhema zifane			
<b>Imisebenzi yetlasi loke</b>		<b>Imisebenzi ehlahlwa ngutitjhere</b>	<b>Imisebenzi yesitetjhi sokusebenzela</b>
<b>Ilanga 1</b>	Amaphetheni aphahekako.	Ukunqophana nomqondo wenomboro 1-5. Khuhlaza uhlukanise. Yenza iinqhema ezilinganako. Amaphetheni nomlingani. Amabhlogo we- <i>Unifix</i> .	<b>Umsebenzi 1</b>
<b>Ilanga 2</b>	Ukufanisa amaphetheni ezintweni zangamalanga.		<b>Umsebenzi 2</b>
<b>Ilanga 3</b>	Ukurarulula umraro ngokusebenzisa amaphetheni.		<b>Umsebenzi 3</b>
<b>Ilanga 4</b>	Ukwenza amaphetheni ngokusebenzisa izinto zangamalanga.		<b>Umsebenzi 4</b>
<b>Ilanga 5</b>	Amaphetheni wetjhada.		
<b>Iveke 7</b>			
<b>ISIGABA SOKUMUMETHWEKO:</b> UKUPHATHA IDATHA.			
<b>ISIHLOKO:</b> Buthelela bese uhlela izinto; ukujamiselela amabuthelolelo wezinto ahleliweko; khulumisanani bese nibika ngamabuthelolelo wezinto ahleliweko			
<b>UKWETHULA ILWAZI ELITJHA:</b> Dweba isithombe sezinto ezibuthelolelweko, phendula imibuzo yesithombe sakho			
<b>UKUJAYEZA:</b> Ukubala ngomlomo 1-20 nokubala uye emuva ukusuka ku-7, ukubala izinto 1-7, kungaphezulu kuna/kuncani kuna/kulingana na, umqondo wenomboro 1-5, ukuhlela nokuhlukanisa			
<b>Imisebenzi yetlasi loke</b>		<b>Imisebenzi ehlahlwa ngutitjhere</b>	<b>Imisebenzi yesitetjhi sokusebenzela</b>
<b>Ilanga 1</b>	Ukubuthelolela nokuhlela izinto (rondo nofana isikwere).	Ukulinganisa. Ukubala. Ukuhlela amabuthelolelo weenlwana. Igrafu yeenthombe: kungaphezulu/kuncani. Ukubuza.	<b>Umsebenzi 1</b>
<b>Ilanga 2</b>	Umdlalo wokuhlela. IPhosta 8.		<b>Umsebenzi 2</b>
<b>Ilanga 3</b>	Igrafu yeenthombe: Uya njani esikolweni?		<b>Umsebenzi 3</b>
<b>Ilanga 4</b>	Khulumisanani ngemiphumela yeLanga 3 (ukubuza imibuzo).		<b>Umsebenzi 4</b>
<b>Ilanga 5</b>	Buthelela begodu uhlele izinto zangetlasini.		

# Workshop 5 Evaluation Form

1. Did the workshop meet your expectations?

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2. What did you learn in this workshop that helped you the most?

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3. Was there anything that you did not like or had difficulty understanding?

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4. How will you apply what you have learnt in your Grade R classroom?

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5. Do you have any suggestions for improving further workshops?

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# Isifundobandulo 5 Iforomo lokuHlunga

1. Ingabe isifundobandulo sibe ngilokho ebegade ukulindele?

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2. Khuyini okufundileko kilesisifundobandulo okukusize khulu?

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3. Ikhona into nofana khuyini ongakhange uyithande nofana obenobudisi ukuyizwisisa?

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4. Uzokusebenzisa njani lokho okufundileko ngetlasini yakho yakwa-Greyidi R?

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5. Kukhona imibono onayo emayelana nokwenza iifundobandulo ezizako zibe ngcono?

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