IsiZulu/English

Uhlelo Lokuthuthukisa
Izibalo Zebanga R
Grade R Mathematics
Improvement Programme

Umhlangano Wokucobelelana Ngolwazi 8 ● Workshop 8
Incwadi Yokusebenzela Yababambiqhaza ● Participant's Workbook

Uhlelo Lokuthuthukisa Izibalo neziLimi ZeBanga R luyisinyathelo so**Mnyango WezeMfundo wesiFundazwe saseGauteng (Gauteng Department of Education)** kanye nomlingani wawo osemqoka, i-**Gauteng Education Development Trust**.

Ukuthuthukiswa nokukhiqizwa kokuqeqeshwa kanye nezinsiza zasekilasini zoHlelo Lokuthuthukisa Izibalo neziLimi ZeBanga R kuphumelele ngenxa yoxhaso olunobubele lwephrojekthi oluphuma kwi-**United States Agency for International Development** kanye ne-**Zenex Foundation**.

Uhlelo Lokuthuthukisa Izibalo neziLimi ZeBanga R luphethwe yi-**Jet Education Services** ehlangene ne-**Schools Development Unit** yase-**UCT** ne-**Wordworks** njengabalingani abangochwepheshe ngamakhono athile.

I-**Schools Development Unit** (SDU) e-**University of Cape Town** (UCT) iwumlingani owuchwepheshe wezibalo kuHlelo Lokuthuthukisa Izibalo neziLimi ZeBanga R. I-SDU iyingxenye ephakathi ku-School of Education sase-UCT egxile ekuthuthukisweni kobungcwepheshe bothisha eziBalweni, Isayensi, Ukwazi Ukufunda Nokubhala/ Ulimi kanye namaKhono Empilo kusuka EBangeni R kuya EBangeni le-12. I-SDU inikeza iziqu zobuthishela kanye nezifundo zesikhathi esifushane ezivunywe i-UCT, umsebenzi osekelwe esikoleni ukuthuthukiswa kwezinto kanye nocwaningo ukuze kusekwe ukufundisa nokufunda kuzo zonke izimo zaseNingizimu Afrika.

AMAZWI OKUBONGA
Kubongwa ngokukhethekile:
- Izikhulu zomkhakha woHlelo Lwezifundo, Umkhakha Wokufunda kothisha kanye nomkhakha WokuFunda okukhethekile woMnyango WezeMfundo wesiFundazwe saseGauteng, ngokuzinikela kwabo ukulungisa izinsiza kufunda zethu.
- Izikhulu kanye nothisha be-Western Cape Education Department (WCED) ngokuzinikela ekuqaleni okuyimpumelelo kwe-Grade R Mathematics Programme (R-Maths) eNtshonalanga Kapa phakathi konyaka wezi-2016 nonyaka wezi-2019.
- Iqembu lababhali be-R-Maths: Abasebenzi bakwa-SDU nabaxhumanisi.

Contents

Overview

Workshop content

Okuqukethwe

Ukubuka ngelibanzi

Okuqukethwe komhlangano wokucobelelana ngolwazi

Overview

Purpose

This is the eighth 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 continue assisting teachers to implement the Maths Programme in their classrooms. Participants will have the opportunity to reflect on their observations. They will explore how the guiding principles of teaching maths in Grade R should inform their planning, teaching and assessment. They will also consider learner progress, and individual developmental and learning needs. The workshop explores the content for Term 3 Weeks 4–6 and its classroom implementation.

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 3 Weeks 1–3
♦ To explore play-based strategies to support teaching maths in Grade R
♦ To deepen the understanding of the Maths Programme's topics
♦ To reflect on challenges and find solutions to implementing the Maths Programme
♦ To map out the Maths Programme content to be taught in Term 3 Weeks 4–6

Workshop content

♦ Opening and reflection   (1 hour)
♦ Session 1: Measurement   (1 hour)
TEA
♦ Session 2: Measurement (continued)   (1 hour)
♦ Session 3: Revisiting Grade R maths topics   (1 hour)
LUNCH
♦ Session 4: Planning for teaching   (1½ hours)
♦ Closing activities   (30 minutes)

Ukubuka ngelibanzi

Inhloso

Lo owesishiyagalombili emihlanganweni yokucobelelana ulwazi eyishumi nambili ngaphansi kwesihloko: Uhlelo Lokuthuthukisa Izibalo ZeBanga R (Uhlelo Lwezibalo), eyingxenye YoMnyango WezeMfundo wesiFundazwe saseGauteng (Gauteng Department of Education (GDE Uhlelo Lokuthuthukisa Izibalo neziLimi ZeBanga R)).

Inhloso yalo mhlangano wokucobelelana ngolwazi ukusiza othisha ukuthi basebenzise Uhlelo Lwezibalo emakilasini abo. Ababambiqhaza bazoba nethuba lokudlinza ngalokho abaye bakuqaphela. Bazothola ukuthi imigomo elawulayo yokufundisa izibalo eBangeni R ikwazisa kanjani ukuhlela, ukufundisa kanye nokuhlola kwabo. Bazobheka nenqubekelaphambili yomfundi futhi, izidingo zokuthuthuka komuntu ngamunye kanye nezokufunda nje-ke. Umhlangano wokucobelelana ngolwazi uhlola ulwazi lukaThemu 3 Amasonto 4–6 kanye nokusetshenziswa kwalo ekilasini.

Ingxenye Yolwazi Yezibalwa zeBanga R zithathwe ku*Sitatimende Senqubomgomo Yohlelo Lwezifundo Nokuhlola (CAPS)*: *Izibalo Zebanga R (Uhlaka Lokugcina),* 2011, Umnyango Wemfundo Eyisisekelo, eNingizimu Afrika.

Imiphumela yokufunda

- ♦ Ukucabanga ngokusetshenziswa kweThemu 3 Amasonto 1–3
- ♦ Ukuhlola amasu asekelwe ekudlaleni ukweseka ukufundisa izibalo zeBanga R
- ♦ Ukujulisa ukuqondwa kwezihloko zoHlelo Lwezibalo
- ♦ Ukudlinza ngezinselelo nokuthola izixazululo ekusebenziseni uHlelo Lwezibalo
- ♦ Ukuklama ulwazi loHlelo Lwezibalo oluzofundiswa kuThemu 3 Amasonto 4–6

Okuqukethwe komhlangano wokucobelelana ngolwazi

- ♦ Ukuvula nokudlinza   (1 ihora)
- ♦ Iseshini 1: Isilinganiso   (1 ihora)

ITIYE

- ♦ Iseshini 2: Isilinganiso (kuyaqhutshwa)   (1 ihora)
- ♦ Iseshini 3: Ukubuyela ezihlokweni zezibalo zeBanga R   (1 ihora)

ISIDLO SASEMINI

- ♦ Iseshini 4: Ukuhlelela ukufundisa   (1½ amahora)
- ♦ Imisebenzi yokuvala   (30 imizuzu)

Opening and reflection

1 hour

Here is the *Take back to school task* from Workshop 7.

> ❗ **Take back to school task (Workshop 7)**
> 1. Use the Term 3 Weekly Planning Template in Appendix A to plan and implement Term 3 Weeks 1–3 of the Maths Programme.
> 2. Document how you used the **'Check that learners are able to'** observation list (in the eye box) during each of the teacher-guided activities.
> 3. Write an evaluation of what worked well, what did not work so well and what you could do differently to improve teaching and learning.
> 4. Bring your evaluation to the next workshop.

👥 **Activity 1**

1. In your group, share your successes and challenges with implementing the Maths Programme in Term 3 Weeks 1–3.

_____
_____
_____

2. Discuss your use of the **'Check that learners are able to'** observation list (in the eye box) during each of the teacher-guided activities.

_____
_____
_____

3. Share strategies for improving teaching and learning for the challenges you identified.

_____
_____
_____

4. Write the main points of your discussion on flipchart paper. Report back on your discussion to the large group.

Ukuvula nokudzindla

Nanku *Umsebenzi obuyela nawo esikoleni* othathwe emhlanganweni Wokucobelelana Ngolwazi 7.

⚠️ **Umsebenzi obuyela nawo esikoleni (Umhlangano Wokucobelelana Ngolwazi 7)**

1. Sebenzisa Ithempulethi Yokuhlela Yamasonto Onke yeThemu 3 Isithasiselo A ukuhlela nokusebenza kweThemu 3 Amasonto 1–3 oHlelo Lwezibalo.
2. Bhala ukuthi walusebenzisa kanjani uhlu lokubheka (ebhokisini leso) **'Ukuhlola ukuthi abafundi bayakwazi uku-'** ngesikhathi ngasinye semisebenzi eholwa nguthisha.
3. Bhala usho ukuthi yini esebenze kahle, yini engasebenzanga kahle, nokuthi yini ongayenza ngendlela ehlukile ukuze uthuthukise ukufundisa nokufunda.
4. Letha lokho okubhalile emhlanganweni olandelayo wokucobelelana ngolwazi.

👥 Umsebenzi 1

1. Eqenjini lakho, yabelana nabanye ngempumelelo kanye nangezinselelo zakho ekusebenziseni uHlelo Lwezibalo kuThemu 3 Amasonto 1–3.

   _____
   _____
   _____

2. Xoxa ngokusebenzisa kwakho ingxenye ethi **'Hlola ukuthi abafundi bayakwazi uku-'** yohla lokuqaphela (ebhokisini lehlo) ngesikhathi somsebenzi ngamunye kweholwa nguthisha.

   _____
   _____
   _____

3. Yabelana nabanye ngamasu okuthuthukisa ukufundisa nokufunda ngezinselelo ozihlonzile.

   _____
   _____
   _____

4. Bhala ephepheni leshadi eliphenywayo amaphuzu asemqoka engxoxo yenu. Bikela iqembu elikhulu ngengxoxo yenu.

Video 1

Watch the video of a teacher working with a small group of learners during the teacher-guided activity in Term 3 Week 3.

Observe how the teacher:
♦ has prepared the small group activity
♦ manages the transitions between the eight tasks
♦ uses questions to guide the learners
♦ records her observations of what has been learnt using the **'Check that learners are able to'** observation list.

_____
_____
_____
_____
_____

Ividiyo 1

Bukela ividiyo kathisha osebenza neqenjana labafundi ngesikhathi somsebenzi oholwa uthisha kuThemu 3 Isonto 3.

Qaphela ukuthi uthisha:
♦ Uwulungise kanjani umsebenzi weqembu elincane
♦ Ukuphatha kanjani ukuguquka phakathi kwemisebenzi eyisishiyagalombili
♦ uyisebenzisa kanjani imibuzo ukuhola abafundi
♦ uyakuqopha ukuqaphela kwakhe ngokufundiwe esebenzisa uhla lokuqaphela oluthi **'Hlola ukuthi abafundi bayakwazi uku-'**

_____
_____
_____
_____
_____

Session 1: Measurement

1 hour

In Terms 1 and 2, time and length were the focus of Measurement. This session will revisit these topics and expand the discussion of Measurement to include mass, and capacity and volume.

Measurement is about finding out 'how much' there is of something. In Grade R, the focus of measurement is on:
- time
- length
- mass
- capacity and volume.

In the next activity, you will explore each of these measurement concepts.

Learners in Grade R measure informally, by direct comparison and by using non-standard units of measurement. Learners develop their estimation skills during informal measurement activities. They estimate how long or how heavy they think something is and then use a non-standard measuring instrument to find out how accurate their estimation was.

Activity 2

With your group, move to the measurement workstation you have been assigned to and answer the questions in your *Participant's Workbook*. Rotate to the next workstation when you receive the signal.

Length

Refer to page 210 of the *Concept Guide*. What vocabulary did you use during this activity?

_____
_____

Iseshini 1: Isilinganiso

KuThemu 1 no-2, bekugxilwe ekulinganiseni ngokusebenzisa isikhathi nobude. Le seshini izobuyela kuzo lezi zihloko bese ikhulisa ingxoxo yeSilinganiso ngokubandakanya isisindo, umthamo kanye nevolumu.

Isilinganiso sichaza ukuthola ukuthi 'ingakanani' into esesiqukathini esithile. Ebangeni R, isilinganiso sigxile kulokhu:

♦ isikhathi

♦ ubude

♦ isisindo

♦ umthamo kanye nevolumu.

Emsebenzini olandelayo, uzocwaninga ulwazi lwesilinganiso usebenzisa lokhu okubaliwe ngakunye.

Abafundi beBanga R balinganisa ngokungahlelekile, baqhathanisa ngqo besebenzisa amayunithi angenaso isilinganiso. Nokho ngesikhathi semisebenzi yokulinganisa okungahlelekile ayathuthuka amakhono abo okulinganisa. Baqala ngokuhlawumbisela ukuthi into yinde noma isinda kangakanani, bese besebenzisa into engenaso isilinganiso esisemthethweni ukuthola ukuthi kunemba kangakanani ukulinganisa kwabo.

Umsebenzi 2

Wena neqembu lakho hambani niye esiteshini sokwenzela izilinganiso enabelwe sona nifike niphendule imibuzo *eNcwadini Yokusebenzela Yababambiqhaza.* Dlulela esiteshini esilandelayo sokusebenzela uma kuvela isidingo.

Ubude

Bhekisa ekhasini lama-211 lo*Mhlahlandlela Wokuqonda Isifundo*. Yiluphi ulwazimagama olusebenzise ngesikhathi salo msebenzi?

_____

_____

Find the answer to each of the following and identify the non-standard unit of measurement you used.

	Estimate (guess)	Non-standard unit of measurement	Length
1. Who has the longest shoe?			
2. Who is the shortest?			
3. How long is your *Participant's Workbook*?			
4. Who has the longest arm?			
5. How wide is your table?			
6. How many hand spans is the height of the door?			

Capacity and volume

Refer to page 210 of the *Concept Guide*. What vocabulary did you use during this activity?

_____

_____

Find the answer to each of the following and identify the non-standard unit of measurement you used.

	Estimate (guess)	Non-standard unit of measurement	Capacity or volume
1. Which two containers of water will fill the jug?			
2. Which bottle holds the most cups of water?			
3. How many cups of water do you think it will take to fill the vase?			
4. How many cups of water will it take to half-fill the vase?			
5. Which container on the table has the least amount of water in it?			
6. Which two containers have the same amount of water?			

Thola impendulo kulokhu okulandelayo ngakunye, bese uhlonza isikali esingekho emthethweni sokulinganisa osisebenzisile ukulinganisa.

	Linganisela (qagela)	Isikali esingekho emthethweni sokulinganisa	Ubude
1. Ubani onesicathulo eside kunazo zonke?			
2. Ubani omfushane kunabo bonke?			
3. Yinde kangakanani eyakho *Incwadi Yokusebenzela Yababambiqhaza*?			
4. Ubani onengalo ende kunazo zonke?			
5. Libanzi kangakanani itafula lakho?			
6. Kuyizandla ezingaki ukuphakama kwesicabha?			

Umthamo nevolumu

Bhekisa ekhasini lama-211 lo*Mhlahlandlela Wokuqonda Isifundo*. Yiluphi ulwazimagama olusebenzise ngesikhathi salo msebenzi?

_____

_____

Thola impendulo kulokhu okulandelayo ngakunye, bese uhlonza isikali esingekho emthethweni sokulinganisa osisebenzise ukulinganisa.

	Linganisela (qagela)	Isikali esingekho emthethweni sokulinganisa	Umthamo noma ivolumu
1. Yiziphi izitsha ezimbili zamanzi ezizogcwalisa ujeke?			
2. Yiliphi ibhodlela elimumatha izinkomishi zamanzi eziningi kunawo wonke?			
3. Ucabanga ukuthi zingaki izinkomishi zamanzi ezingagcwalisa ivasi?			
4. Zingaki izinkomishi zamanzi ezingagcwalisa ingxenye yevasi?			
5. Yisiphi isitsha etafuleni esinamanzi amancane kakhulu kusona?			
6. Yiziphi izitsha ezimbili ezinamanzi ayisilinganiso esifanayo?			

Mass

Refer to page 210 of the *Concept Guide*. What vocabulary did you use during this activity?

_____

_____

Find the answer to each of the following and identify the non-standard unit of measurement you used.

	Estimate (guess)	Non-standard unit of measurement	Mass
1. Whose handbag in your group is the heaviest?			
2. Which book in your group is the lightest?			
3. Who is the heaviest in your group? Who is the lightest?			
4. Which fruit is the heaviest?			
5. Which bottle weighs the most?			

Time

Refer to page 210 of the *Concept Guide*. What vocabulary did you use during this activity?

_____

_____

Find the answer to each of the following and identify the non-standard unit of measurement you used.

	Estimate (guess)	Non-standard unit of measurement	Time
1. Who arrived the earliest this morning?			
2. Who arrived the latest?			
3. How long does it take to walk from your chair to the car?			
4. Who walked the fastest from their chair to the car?			
5. Would it take longer to eat lunch or drive to school?			

Isisindo

Bhekisa ekhasini lama-211 lo*Mhlahlandlela Wokuqonda Isifundo*. Yiluphi ulwazimagama olusebenzisile ngesikhathi salo msebenzi?

_____

_____

Thola impendulo yalokhu okulandelayo ngakunye bese uhlonza isikali esingekho emthethweni sokulinganisa osisebenzisile ukulinganisa.

	Linganisela (qagela)	Isikali esingekho emthethweni sokulinganisa	Isisindo
1. Esikabani isikhwama esisinda kunazo zonke eqenjini lakho?			
2. Iyiphi incwadi elula kunazo zonke eqenjini lakho?			
3.Ubani osinda kunabo bonke eqenjini lakho? Ubani olula kunabo bonke?			
4. Yisiphi isithelo esisinda kunazo zonke?			
5. Yiliphi ibhodlela elisinda kunawo wonke?			

Isikhathi

Bhekisa ekhasini lama-211 lo*Mhlahlandlela Wokuqonda Isifundo*. Yiluphi ulwazimagama olusebenzisile ngesikhathi salo msebenzi?

_____

_____

Thola impendulo yalokhu okulandelayo ngakunye, bese uhlonza isikali esingekho emthethweni sokulinganisa osisebenzisile ukulinganisa.

	Linganisela (qagela)	Isikali esingekho emthethweni sokulinganisa	Isikhathi
1. Ubani ofike kuqala kunabo bonke namhlanje ekuseni?			
2. Ubani ofike kamuva kunabo bonke?			
3. Kukuthatha isikhathi esingakanani ukuhamba usuka esihlalweni sakho uya emotweni?			
4. Ubani ohambe washesha kakhulu ukuya emotweni?			
5. Yikuphi okungathatha isikhathi eside phakathi kokudla isidlo sasemini nokuya esikoleni ngemoto?			

Session 2: Measurement (continued)   1 hour

Activity 3

Consider the measurement activities that you have just experienced in Activity 2. How is your classroom set up to provide similar learning experiences?

_____
_____
_____
_____

In Grade R, Measurement focuses on estimating, weighing, comparing and ordering objects according to how heavy or light they are.

Learners may find it difficult to understand that a small object can be heavier than a larger object. They need many opportunities to explore small heavy objects, small light objects, big heavy objects and big light objects.

Video 2

Watch the video of comparing the mass of one object against another.

Discuss these questions.
♦   What do you see happening?
♦   What concepts are being taught and learnt?
♦   What skills are being practised?
♦   What are the learners doing and saying?
♦   How is the teacher mediating learning?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Iseshini 2: Isilinganiso (kuyaqhutshwa)

⛑ Umsebenzi 3

Cabanga ngemisebenzi yesilinganiso osanda kuyenza kuMsebenzi 2. Lihleleke kanjani ikilasi lakho ukunikeza okucishe kufane nalokhu?

_____

_____

_____

_____

KuBangeni R, Isilinganiso sigxile ekuhlawumbiseleni, esisindweni, ekuqhathaniseni kanye nasekulandelaniseni izinto ngokuthi zisinda kangakanani noma zilula kangakanani.

Abafundi bangakuthola kunzima ukuqonda ukuthi izinto ezincane zingasinda kunezinto ezinkulu. Badinga amathuba amaningi okuhlola izinto ezincane ezisindayo, izinto ezincane ezilula, izinto ezinkulu ezisindayo kanye nezinto ezinkulu ezilula.

🎥 Ividiyo 2

Buka ividiyo emayelana nokuqhathanisa isisindo sento nenye.

Xoxani ngale mibuzo.
♦ Yini oyibona yenzeka?
♦ Yiluphi ulwazi olufundiswayo nolufundiwe?
♦ Yimaphi amakhono alolongwayo?
♦ Benzani abafundi, futhi bathini?
♦ Uthisha ufundisa kanjani?

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

_____

Session 3: Revisiting Grade R maths topics

1 hour

As you know, the Maths Programme is designed to introduce new knowledge and build on this progressively across the weeks and terms. During this session, we will revisit Content Areas and topics that we have dealt with in previous workshops and we will discuss how these topics have been presented in the Maths Programme.

Activity 4

The facilitator will give a topic to each group to discuss.

You are required to prepare a presentation on your understanding of the topic and how the Maths Programme deals with the development of the concepts and skills related to it. Read the relevant information associated with your topic in the *Concept Guide* (pages 138–219).

You will receive ONE of the following topics:
1. How are shapes introduced and consolidated in the Maths Programme? Refer to Term 3, Week 4, Days 1, 2 and 3 to support your discussion.

2. Position and direction are difficult concepts for young children to grasp. How does the Maths Programme present these topics in Terms 1, 2 and 3? Refer to Term 3, Week 4, Days 4 and 5 to support your discussion.

3. Term 3, Week 4, Day 5 deals with the topic of symmetry. Explain your understanding of this topic. Share your experiences of teaching symmetry and how your learners have demonstrated their understanding of it.

4. Dot cards are used throughout the Maths Programme. Discuss the value of using this resource and if/how it contributes to building number concept. Refer to Term 3, Weeks 4 and 6 to support your discussion.

5. Discuss the routine that is used to introduce a new number in the Maths Programme. Explain how this routine builds on and consolidates the development of number concept. Refer to Term 3, Week 6 to support your discussion.

Iseshini 3: Ukubuyela ezihlokweni zezibalo zeBanga R

1 ihora

Njengoba wazi, uHlelo lwezibalo lwakhelwe ukwethula ulwazi olusha ngokuqhubekayo masonto wonke nakuwo wonke amathemu. Ngale seshini, sizobuyela kuzo Izingxenye Zolwazi kanye nezihloko esizenze emhlanganweni owedlule wokucobelelana ngolwazi, bese sixoxa ngokuthi lezi zihloko zethulwe kanjani oHlelweni lwezibalo.

Umsebenzi 4

Umdidiyeli uzonikeza isihloko okuzoxoxwa ngaso eqenjini ngalinye.

Ulindeleke ukwethula lokho okuqondayo ngesihloko kanye nokuthi uHlelo lwezibalo, ukuthuthukiswa kolwazi namakhono, okuhlobene nalo kwenzeka kanjani. Funda ulwazi oluyilo oluhlobene nesihloko sakho esik*uMhlahlandlela Wokuqonda Isifundo* (amakhasi 138-219).

Uzothola ESISODWA salezi zihloko:
1. Zethulwe futhi zahlanganiswa kanjani izimo kuHlelo lwezibalo? Bhekisa kuThemu 3, 4, Usuku 1, 2 kanye nelesi-3 ukweseka ingxoxo yakho.

2. Isikhundla kanye nenkomba wulwazi olunzima ukuba abantwana balubambe. UHlelo lwezibalo luzethula kanjani lezi zihloko kuThemu1, 2 no-3? Bhekisa kuThemu 3 Isonto 4 Usuku 4 no-5 ukweseka ingxoxo yakho.

3. IThemu 3, iSonto 4, Usuku 5 liphathelene nesihloko sokuvumelanisa. Chaza indlela oqonda ngayo lesi sihloko. Yabelana nabanye ngolwazi lwakho lokufundisa ukuvumelanisa kanye nokuthi abafundi bakho bakukhombise kanjani ukuqonda kwabo lezi zinto.

4. Amakhadi anamachashazi asetshenziswa kulo lonke uHlelo lwezibalo. Xoxa ngokubaluleka kokusebenzisa le nsiza kanye/nokuthi inikela kangakanani.

5. Xoxa ngenqubo esetshenziswa ukwethula inombolo entsha oHlelweni lwezibalo. Chaza ukuthi le nqubo yakhela futhi ihlanganise kanjani ukwakhiwa kolwazi lwezinombolo. Bhekisa kuThemu 3, Isonto 4 no-6 ukweseka ingxoxo yakho.

6. Explain how word problems are used to teach addition, subtraction, grouping (multiplication) and equal sharing (division). Discuss the importance of the use of language and the structure of the word problem. Also included a motivation for the use of fingers and concrete apparatus during problem-solving activities. Refer to Week 6, Day 5 and the teacher-guided activities to provide examples.

7. How does the Maths Programme facilitate learning how to sequence/order the counting numbers (oral counting)? Consider each of the resources below to support your discussion:
   ♦ songs and rhymes
   ♦ number washing line
   ♦ jumping tracks
   ♦ number symbol cards.
   How do these activities link to the concept of ordinal numbers? Refer to Term 3, Week 6 for examples to support your discussion.

8. A real understanding of counting is achieved when learners are able to count each object in a collection and know that the last count represents the total number of the collection. This is a difficult concept for learners to grasp. How does the Maths Programme provide opportunities for learners to develop the concept of cardinality?

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

6. Chaza ukuthi izinkinga zamagama zisetshenziswa kanjani ukufundisa ukuhlanganisa, ukususa, amaqoqo, (ukuphindaphinda) kanye nokwabelana ngokulinganayo (ukuhlukanisa). Xoxa ngokubaluleka kokusetshenziswa kolimi kanye nokwakhiwa kwezinkinga zezinombolo. Kubuye kwafakwa nokugqugquzelwa kokusetshenziswa kweminwe kanye nezinto ezibambekayo ngesikhathi sezinkinga zezinombolo.

7. Lwenza kanjani uHlelo Lwezibalo ukwenza lula ukufundisa ukulandelanisa/ukuhlela izinombolo zokubala (ukubala ngomlomo)? Cabanga ngezinsiza ezingezansi ngayinye ukweseka ingxoxo yakho:
   ♦ amaculo nemilolozelo
   ♦ ulayini wokweneka wezinombolo
   ♦ imigudu yokugxuma
   ♦ amakhadi ezimpawu zezinombolo.
   Ixhumana kanjani le misebenzi nolwazi lwezinombolo ezisho isikhundla. Bhekisa kwizibonelo zeThemu 3, Isonto 6 ukweseka ingxoxo yakho.

8. Ukuqonda okuyikho kokubala kutholakala uma abafundi sebekwazi ukubala into ngayinye eqoqweni, kanye nokwazi ukuthi ukubala okokugcina eqoqweni kanye nokwazi ukuthi okokugcina ukubala kumele inani lenombolo yokuqoqiwe. Lolu ulwazi olulukhuni ukuba abafundi balubambe. Luwakha kanjani lolu Hlelo Lwezibalo amathuba omfundi okukhulisa umqondo wokubala okokugcina?

_____

_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____
_____

Session 4: Planning for teaching   1½ hours

It is important to plan and prepare thoroughly for each week. This will allow you to feel confident about what you are doing and help you to focus on teaching and working with the learners. As you have already experienced in Terms 1 and 2, the Maths Programme is carefully structured, and the maths content is presented in a progressive developmental sequence. It has been designed to ensure that all the Grade R Mathematics content and skills are covered and learners are well prepared for Grade 1. Teachers need to be cautious about selecting activities from different weeks and leaving other activities out.

Activity 5
1. In your group, complete the planning templates for Term 3 Weeks 4–6 (Appendix A).
2. Your group will present an overview of your planning discussion to the other groups. Note the main points of your discussion on flipchart paper. Include answers to the following questions:
    ♦ How could you work with a colleague to prepare for each week?
    ♦ How is the week structured?
    ♦ How do the topics build on previous lessons?
    ♦ Do the whole class activities successfully open the way for discussion and exploration of new knowledge?
    ♦ How does the teacher-guided activity provide opportunities for the teacher to assess and support the learners?
    ♦ Do the independent small group activities allow for adequate practice of new knowledge and skills?

Iseshini 4: Ukuhlelela ukufundisa   1½ amahora

Kubalulekile ukuhlela nokulungiselela kahle isonto ngalinye. Lokhu kuzokwenza uzizwe uqiniseka ngokwenzayo, futhi kukusize ukuthi ugxile ekufundiseni nasekusebenzeni kahle nabafundi. Njengoba usuvele uhlangabezane nalo kuThemu 1 no-2 Uhlelo Lwezibalo, uzobona ukuthi luhlelwe ngokucophelela, nolwazi lwezibalo lwavezwa ngokulandelana ekuthuthukeni ngokuqhubekayo. Kuklanyelwe ukuqinisekisa ukuthi konke okuqukethwe, namakhono ezibalo zeBanga R kuhlanganisiwe, kanti abafundi balilungele kahle Ibanga 1. Othisha kudingeka baqaphele uma bekhetha imisebenzi emasontweni ahlukene beshiya eminye ngaphandle.

⚘ Umsebenzi 5

1. Qedelani ithemplethi yokuhlela yeThemu 3 Amasonto 4–6 (Isithasiselo A) eqenjini lenu.
2. Iqembu lenu lizokwethulela elinye iqembu imibono yokubuka ngelibanzi. Bhala ephepheni leshadi eliphenywayo amaphuzu asemqoka engxoxo yakho. Ufake nezimpendulo zale mibuzo elandelayo: Uzosebenza kanjani nozakwenu ukulungiselela isonto ngalinye?

    ♦   Ungasebenza kanjani nomlingani wakho ukulungiselela isonto ngalinye?

    ♦   Lihleleke kanjani isonto?

    ♦   Sakhela kanjani isihloko esifundweni esedlule?

    ♦   Ngabe imisebenzi yekilasi lonke iyivula ngempumelelo indlela yengxoxo kanye nokuhlolwa kolwazi olusha?

    ♦   Ngabe umsebenzi oholwa uthisha unikeza kanjani amathuba okuhlola kothisha kanye nokweseka kwabo abafundi?

    ♦   Ngabe imisebenzi yokuzimela yamaqembu amancane yethula amathuba enele ukululonga ulwazi olusha kanye namakhono?

Closing activities

30 minutes

Activity 6

Workshop reflection: Take a few minutes to reflect on the day. Page through your *Participant's Workbook* to remind yourself of what was covered. Write down your thoughts.

_____
_____
_____
_____
_____

Share your reflections with the large group.

❶ Take back to school task

1. Use *Activity Guide: Term 3* to plan and implement Term 3 Weeks 4–6 of the Maths Programme.
2. Write comments in the book that you use to keep track of each learner's progress (learner observation book). Use the **'Check that learners are able to'** observation list (eye box) during each of the teacher-guided activities to guide your observations and comments.
3. Make notes of what worked well, what did not work well and how you resolved any challenges during your implementation of Term 3 Weeks 4–6.
4. Bring your learner observation book and the notes you made when reflecting on each day's teaching to the next workshop.

Evaluation
Complete the Evaluation Form.

Imisebenzi yokuvala

30 imizuzu

Umsebenzi 6

Ukudlinza ngomhlangano wokucobelelana ngolwazi: Thatha imizuzu embalwa udlinze ngosuku lolo. Phenya amakhasi *eNcwadi Yokusebenzela Yababambiqhaza* ukuzikhumbuza ngokwenziwa. Bhala phansi noma iyiphi imibuzo noma imibono ukuze wabelane neqembu.

_____
_____
_____
_____
_____

Yabela iqembu elikhulu imidlinzo yakho.

Umsebenzi obuyela nawo esikoleni

1. Sebenzisa *Umhlahlandlela Wemisebenzi: Ithemu 3* ukuhlela nokwenza Ithemu 3 Amasonto 4–6 yoHlelo LweziBalo.
2. Bhala imibono ebhukwini olisebenzisela ukulandelela inqubekela phambili yomfundi ngamunye (ibhuku lokuqaphela abafundi). Sebenzisa uhlu lokuqaphela ingxenye ethi **'Hlola ukuthi abafundi bayakwazi uku-'** (ibhokisi lehlo) ngesikhathi semisebenzi eholwa uthisha ukuhola okuqaphelile kanye nemibono.
3. Bhala amanothi ezinto ezisebenzeke kahle, ezingasebenzanga kahle kanye nokuthi uzixazulule kanjani izinkinga ngesikhathi sokwenza okunqunywe kuThemu 3 Amasonto 4–6.
4. Letha ibhuku lokuqaphela labafundi bakho kanye namanothi owenze ngesikhathi udlinza ngokufundisiwe kosuku ngalunye emhlanganweni olandelayo wokucobelelana ngolwazi.

Ukuhlola

Gcwalisa Ifomu Lokuhlola.

APPENDIX A: TERM 3 WEEKLY PLANNING TEMPLATE

Term 3: Activity Plan: Week ____

CONTENT AREA:			
TOPIC: INTRODUCE NEW KNOWLEDGE: PRACTISE:			
Whole class activities		**Teacher-guided activity**	**Workstation activities (independent small group activities)**
Day 1			Activity 1
Day 2			Activity 2
Day 3			Activity 3
Day 4			Activity 4
Day 5			

ISITHASISELO A: ITHEMU 3 ITHEMPULETHI YOKUHLELA KWAMASONTO ONKE

Ithemu 3: Uhlelo Lomsebenzi: Isonto ____

INGXENYE YOLWAZI:		
ISIHLOKO:		
YETHULA ULWAZI OLUSHA:		
ZEJWAYEZE:		
Imisebenzi yekilasi lonke	**Umsebenzi oholwa nguthisha**	**Imisebenzi yesiteshi sokusebenzela (imisebenzi yokuzimela yeqembu elincane)**
Usuku 1		**Umsebenzi 1**
Usuku 2		**Umsebenzi 2**
Usuku 3		**Umsebenzi 3**
Usuku 4		**Umsebenzi 4**
Usuku 5		

Term 3: Activity Plan: Week ____

CONTENT AREA:		

TOPIC:

INTRODUCE NEW KNOWLEDGE:

PRACTISE:

Whole class activities		Teacher-guided activity	Workstation activities (independent small group activities)	
Day 1			**Activity 1**	
Day 2			**Activity 2**	
Day 3			**Activity 3**	
Day 4			**Activity 4**	
Day 5				

Ithemu 3: Uhlelo Lomsebenzi: Isonto ____

INGXENYE YOLWAZI:			
ISIHLOKO:			
YETHULA ULWAZI OLUSHA:			
ZEJWAYEZE:			
Imisebenzi yekilasi lonke	**Umsebenzi oholwa nguthisha**	**Imisebenzi yesiteshi sokusebenzela (imisebenzi yokuzimela yeqembu elincane)**	
Usuku 1		**Umsebenzi 1**	
Usuku 2		**Umsebenzi 2**	
Usuku 3		**Umsebenzi 3**	
Usuku 4		**Umsebenzi 4**	
Usuku 5			

Term 3: Activity Plan: Week _____

CONTENT AREA:				
TOPIC: **INTRODUCE NEW KNOWLEDGE:** **PRACTISE:**				
Whole class activities		**Teacher-guided activity**	**Workstation activities (independent small group activities)**	
Day 1			**Activity 1**	
Day 2			**Activity 2**	
Day 3			**Activity 3**	
Day 4			**Activity 4**	
Day 5				

Ithemu 3: Uhlelo Lomsebenzi: Isonto ____

INGXENYE YOLWAZI:				
ISIHLOKO:				
YETHULA ULWAZI OLUSHA:				
ZEJWAYEZE:				
Imisebenzi yekilasi lonke		Umsebenzi oholwa nguthisha	Imisebenzi yesiteshi sokusebenzela (imisebenzi yokuzimela yeqembu elincane)	
Usuku 1			**Umsebenzi 1**	
Usuku 2			**Umsebenzi 2**	
Usuku 3			**Umsebenzi 3**	
Usuku 4			**Umsebenzi 4**	
Usuku 5				

Workshop 8 Evaluation Form

1. Did the workshop meet your expectations?

_____
_____
_____
_____

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

_____
_____
_____
_____

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

_____
_____
_____
_____

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

_____
_____
_____
_____

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

_____
_____
_____
_____

Ifomu Lokuhlola Lomhlangano Wokucobelelana Ngolwazi 8

1. Ngabe umhlangano wokucobelelana ngolwazi uhlangabezene nalokho obukulindele?

_____
_____
_____
_____

2. Yini oyifundile kulo mhlangano wokucobelelana ngolwazi ekusize kakhulu?

_____
_____
_____
_____

3. Ngabe kukhona ongakuthandanga noma okuthola kunzima ukukuqonda?

_____
_____
_____
_____

4. Uzokusebenzisa kanjani lokho okufundile ekilasini lakho leBanga R?

_____
_____
_____
_____

5. Ngabe unazo iziphakamiso zokuthuthukisa eminye imihlangano yokucobelelana ngolwazi?

_____
_____
_____
_____