IsiZulu/English

Uhlelo Lokuthuthukisa
Izibalo Zebanga R
Grade R Mathematics
Improvement Programme

Umhlangano Wokucobelelana Ngolwazi 1 ● Workshop 1

Umhlahlandlela Wabadidiyeli ● Facilitator's Guide

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 kobungcweti 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.

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Overview

Purpose

This is the first 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.

Participants will receive information on the components and guiding principles of teaching mathematics in Grade R. They will reflect on and discuss these within the context of their own planning and teaching. Participants will also review the Curriculum and Assessment Policy Statement (CAPS) Grade R Mathematics Content Areas. They will plan the daily programme Mathematics focus time for the first two weeks of Term 1. Throughout the workshop they will reflect on the guiding principles that inform teaching and learning.

*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

> Mathematics is the formal subject name, but in this *Facilitator's Guide* and during our discussions we will refer to it as 'maths'. (Read more about this on page 10 of the *Concept Guide*.)

Learning outcomes

♦ To become familiar with the Maths Programme and how it supports and extends the content of CAPS Grade R Mathematics
♦ To explore the components of the Maths Programme
♦ To understand the teaching principles presented in the Maths Programme
♦ To plan a Term 1 week based on the five-group teaching model
♦ To engage with the Maths Programme content of Term 1 Weeks 1–2 (Numbers, Operations and Relationships)

Workshop content

♦ Session 1: Orientation to the Maths Programme   (2 hours)
TEA
♦ Session 2: Numbers, Operations and Relationships   (2 hours)
LUNCH
♦ Session 3: Implementing the five-group teaching model   (2 hours)

Ukubuka ngelibanzi

Inhloso

Lo owokuqala 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.

Ababambiqhaza bazothola ulwazi ngezingxenye nemigomo eyimihlahlandlela yokufundisa izibalo eBangeni R. Bayozindla futhi baxoxe ngalokhu ngokwesimo sokuhlela nokufundisa kwabo. Ababambiqhaza bazophinde babuyekeze iKharikhulamu ekuSitatimende Senqubomgomo Yohlelo Lwezifundo Nokuhlola (CAPS) Izingxenye Zolwazi zeZibalo ZeBanga R. Bazohlela uhlelo lwansuku zonke lokugxila eZibalweni emasontweni amabili okuqala eThemu 1. Kuwo wonke umhlangano wokucobelelana ngolwazi bazobheka imigomo eyimihlahlandlela efundisa ukufundisa nokufunda.

*Izingxenye Zolwazi ze-*Grade R Maths* zithathwe emqulwini: *Isitatimende Senqubomgomo Yohlelo Lwezifundo Nokuhlola (CAPS): Izibalo ZeBanga R (Uhlaka Lokugcina)*, 2011, Umnyango Wemfundo Eyisisekelo, eNingizimu Afrika

Imiphumela yokufunda

♦ Ukuze ujwayele uHlelo LweZibalo nokuthi lusekela futhi lwelule kanjani okuqukethwe yi-CAPS Grade R Mathematics
♦ Ukuhlola izingxenye zoHlelo LweZibalo
♦ Ukuqonda izimiso zokufundisa ezethulwe oHlelweni LweZibalo
♦ Ukuhlela isonto leThemu 1 ngokusekelwe kumodeli yokufundisa amaqembu amahlanu
♦ Ukuzibandakanya nokuqukethwe koHlelo LweZibalo lweThemu 1 Amasonto 1–2 (Izinombolo, Izimpawu kanye Nobudlelwane Bazo)

Okuqukethwe komhlangano wokucobelelana ngolwazi

♦ Iseshini 1: Ukuzejwayeza Uhlelo LweZibalo   (2 amahora)
ITIYE
♦ Iseshini 2: Izinombolo, Izimpawu kanye Nobudlelwane Bazo   (2 amahora)
ISIDLO SASEMINI
♦ Iseshini 3: Ukusebenzisa imodeli yokufundisa
  yamaqembu amahlanu   (2 amahora)

House rules

♦ Be punctual.
♦ Turn off your cellphone during sessions.
♦ Give everyone a chance to participate.
♦ Listen to each other's ideas.

Preparation

♦ PPT presentations
♦ Read:
Concept Guide, pages 114–117
Activity Guide: Term 1, pages 18–21
Appendix B: Term 1 Weekly Content Summary
♦ Set out a Maths Programme *Resource Kit*, kokis and paper on each group's table.
♦ Prepare the number frieze story and gather materials.
♦ Make a house template on a large sheet of flipchart paper – draw a house shape divided into four parts.
♦ Colour in the Number 1 frieze cards in Appendix C. Glue them onto cardboard.

Materials

♦ Attendance register
♦ Flipchart paper, kokis
♦ Copies of the *Participant's Workbook, Concept Guid*e and *Activity Guide: Term 1*
♦ *Resource Kits*
♦ Puzzle pieces
♦ Number frieze house template and frieze cards

Imithetho yasemhlanganweni

♦ Gcina isikhathi.
♦ Vala umakhalekhukhwini wakho ngesikhathi seseshini.
♦ Nikeza wonke umuntu ithuba lokubamba iqhaza.
♦ Lalelani imibono yabanye

Ukulungiselela

♦ Izethulo zePPT
♦ Funda:

Umhlahlandlela Wokuqonda Isifundo, amakhasi 114–117
Umhlahlandlela Wemisebenzi: Ithemu 1, amakhasi 18–21
Isithasiselo B: Ithemu 1 Iqoqa Lolwazi Lwesonto Ngalinye

♦ Onke Elibekelwe Uhlelo LweZibalo *Ikhithi Yezinsiza*, amakhokhi nephepha etafuleni leqembu ngalinye.
♦ Lungiselela indaba yefrizi yezinombolo bese uqoqa izinto ozozisebenzisa.
♦ Yakha ithempulethi yendlu ephepheni elikhulu leshadi eliphenywayo – dweba umumo wendlu ohlukaniswe izingxenye ezine ebhodini.
♦ Faka umbala kumakhadi efrizi yeNombolo 1 kuSithasiselo C. Wanamathisele ngeglu ekhadibhodini.

Izinto zokusetshenziswa

♦ Irejista yokuba khona
♦ Iphepha leshadi eliphenywayo, amakhokhi
♦ Amakhophi *eNcwadi Yokusebenzela Yombambiqhaza, Umhlahlandlela Wokuqonda Isifundo* kanye no*Mhlahlandlela Wemisebenzi: Ithemu 1*
♦ *Ikhithi Yezinsiza*
♦ Izingcezu zephazili
♦ Ithempulethi yendlu yefrizi yezinombolo namakhadi efrizi

Session 1: Orientation to the Maths Programme

2 hours

Facilitator's notes
♦ Participants should be seated in small groups of six to eight people. Observe COVID-19 protocols.
♦ Give each person a *Participant's Workbook* and the attendance register.
♦ Welcome the participants and introduce yourself.
♦ Discuss the house rules for working together during all workshops (see page 8).
♦ Give participants an opportunity to introduce themselves in their small groups and then to the whole group.
♦ Encourage them to share their training and teaching experiences.
♦ Invite participants to share their expectations of the workshop.

Registration

Welcome and house rules   (10 minutes)

Welcome to the first of twelve maths workshops for the Gauteng Department of Education (GDE) Grade R Mathematics and Language Improvement Project.

Let's start with an introduction to the presenters and agree on a set of house rules.

Sharing teaching experiences   (15 minutes)

Activity 2

1.   Take some time to reflect on your experience of teaching Grade R, especially teaching maths in Grade R. Think about your training and how it prepared you for maths teaching. Also try to identify your strengths and weaknesses in maths.

_____

_____

_____

_____

2.   Share some of your good experiences and bad experiences with a partner.
3.   Choose one person from your group to capture the thoughts that everyone shared.

Iseshini 1: Ukuzejwayeza uHlelo LweZibalo

2 amahora

Amanothi omdidiyeli
♦ Ababambiqhaza kufanele bahlale ngamaqembu amancane abantu abayisithupha kuya kwabayisishiyagalombili. Qaphela imigomo ye-COVID-19.
♦ Nikeza umuntu ngamunye *Incwadi Yokusebenzela Yombambiqhaza* kanye nerejista yokuba khona.
♦ Yamukela ababambiqhaza bese uzethula.
♦ Xoxani ngemithetho yomhlangano yokusebenza ndawonye kuyo yonke imihlangano yokucobelelana ngolwazi (bheka ikhasi 9).
♦ Nikeza ababambiqhaza ithuba lokuzethula emaqenjini abo amancane kanye naseqenjini lonke.
♦ Bakhuthaze ukuthi babelane ngolwazi lwabo lokuqeqeshwa kanye nokufundisa.
♦ Mema ababambiqhaza ukuthi baveze abakulindele emhlanganweni wokucobelelana ngolwazi.

Ukubhalisa

Ukwamukela kanye nemithetho yomhlangano   (10 imizuzu)

Siyakwamukela emhlanganweni wokucobelelana ngolwazi lweZibalo wokuqala kweyishumi nambili wePhrojekthi yoMnyango wezeMfundo waseGauteng (GDE) Yokuthuthukisa Izibalo neziLimi zeBanga R.

Ake siqale ngokwethula abethuli futhi sivumelane ngeqoqo lemithetho yomhlangano.

Ukwabelana ngamava okufundisa   (15 imizuzu)

Umsebenzi 2

1. Zinike isikhathi sokucabangisisa ngamava akho noma okwenzeke kuwe ngokuphathelene nokufundisa iBanga R, ikakhulukazi ukufundisa Izibalo eBangeni R. Cabanga ngokuqeqeshwa kwakho nokuthi kukulungiselele kanjani ukufundisa izibalo. Zama futhi ukuhlonza amandla akho kanye nobuthakathaka bakho ezibalweni.

_____
_____
_____
_____

2. Yabelana nomlingani wakho ngezinto ezinhle nezimbi oke wedlula kuzo.
3. Khetha umuntu oyedwa eqenjini lakho ozoqopha imicabango okwabelanwe ngayo evela kulowo nalowo.

The Grade R Maths Programme   (30 minutes)

Why a Maths Programme for Grade R?

Facilitator's notes
♦ PPT: Summary of the information below.
♦ Discuss the importance of improving maths learning and teaching in the Foundation Phase. Introduce the GDE Grade R Mathematics Improvement Programme as an intervention to enhance the implementation of the CAPS curriculum for Grade R.

Many South African primary school learners underperform in Language and Mathematics. A high percentage of learners fail to achieve even the minimum expected standards in these core subjects. There has been slow progress in the improvement of educational outcomes and in narrowing the achievement gap between learners from different backgrounds. The reasons for this are complex, go beyond the classroom and are affected by children's development and well-being from birth.

One of the critical issues around preschool access and attendance, as well as infrastructure and school management in South Africa, has been the fundamental questions about what and how children are learning. In order for all children to have a better chance of fulfilling their potential in Mathematics, the focus must broaden to include maths development in Grade R and, crucially, to provide Grade R teachers and practitioners with the knowledge and skills needed to support young children's maths learning.

The GDE identified Early Childhood Development as its Strategic Goal 1 and one of its key goals is to improve Home Language and Mathematics learning in Grade R. Through the Grade R Mathematics and Language Improvement Programme, the GDE is striving to improve performance in Grade R and prepare learners for Grade 1.

We believe that the Maths Programme will make an important contribution to the implementation of CAPS and that it will enhance the existing learning opportunities for all learners in Grade R so that they develop to their full potential.

What is the Grade R Maths Programme?

Facilitator's notes
♦ PPT: Page 10 of the *Concept Guide*, summary of the information below.

The Maths Programme focuses on teaching and learning one maths concept or topic at a time. The main focus of each week is on one CAPS Content Area. New knowledge is introduced through:

Uhlelo lweZibalo lweBanga R   (30 imizuzu)

Kungani kube noHlelo lweZibalo lweBanga R?

Amanothi omdidiyeli
♦   PPT: Iqoqa lolwazi olungezansi.   ♦   Xoxani ngokubaluleka kokwenza ngcono ukufunda nokufundiswa kweZibalo esigabeni seMfundo Eyisisekelo. Yethula Uhlelo Lokuthuthukisa Izibalo LweBanga R lwe-GDE njengokungenelela ukuze kuthuthukiswe ukusetshenziswa kwekharikhulamu ye-CAPS yeBanga R.

Abafundi abaningi basezikoleni zamabanga aphansi eNingizimu Afrika abaphumeleli kahle kwezoLimi neZibalo. Iphesenti eliphezulu labafundi liyahluleka ukuzuza ngisho namazinga okuphumelela amancane alindelekile kulezi zifundo ezingumongo wemfundo. Kube nenqubekelaphambili ehamba kancane nokho ekwenzeni ngcono imiphumela yezemfundo kanye nokunciphisa igebe lokuphumelela phakathi kwabafundi abavela ezizindeni ezihlukene. Izizathu zalokhu zixakile, zize zibe ngaphandle kwegumbi lokufundela futhi zithonywa yindlela yokukhula kwezingane kanye nokuphatheka kwazo kusukela zizalwa.

Enye yezinkinga ezibaluleke kakhulu mayelana nokufinyelela nokuya ezikoleni zenkulisa, kanye nengqalasizinda nokuphathwa kwezikole eNingizimu Afrika, kube imibuzo ebalulekile mayelana nokuthi izingane zifundani futhi kanjani. Ukuze zonke izingane zibe sethubeni elingcono lokuphumelelisa ikhono ezinalo leZibalo, kumele kugxilwe kuzo, kunwetshwe ukufaka ukuthuthukiswa kwezibalo eBangeni R, futhi, okubaluleke kakhulu, ukunikeza othisha nabafundi beBanga R ulwazi namakhono adingekayo ukuze kusekelwe ukufunda izibalo kwezingane ezincane.

I-GDE ihlonze ukuThuthukiswa koHlelo lwaBantwana abaNcane njengeNhloso eYisu loku-1 futhi enye yezinhloso zayo ezibalulekile ukuthuthukisa Ulimi Lwasekhaya kanye nokufunda Izibalo zeBanga R. NgoHlelo Lokuthuthukisa Izibalo Nolimi kweBanga R i-GDE iphokophele ukwenza ngcono ukusebenza kweBanga R nokulungiselela abafundi iBanga 1.

Sikholwa ukuthi Uhlelo LweZibalo luzoba negalelo elibalulekile ekusetshenzisweni kwe-CAPS futhi luzothuthukisa amathuba okufunda akhona kubo bonke abafundi beBanga R ukuze bathuthuke bafinyelele lapho amakhono abo angababeka khona.

Luyini Uhlelo LweZibalo LweBanga R?

Amanothi omdidiyeli
♦   PPT: Ikhasi 11 lo*Mhlahlandlela Wokuqonda Isifundo*, iqoqa lolwazi olungezansi.

Uhlelo LweZibalo lugxile ekufundiseni nasekufundeni umqondo owodwa wezibalo noma isihloko ngesikhathi esisodwa. Okugxilwe kukho kwesonto ngalinye yiNgxenye Yolwazi eyodwa ye-CAPS. Ulwazi olusha lwethulwa ngalokhu:

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- ♦ whole class activities
- ♦ small group activities: teacher-guided activities and independent (side) activities
- ♦ free choice activities.

The Maths Programme:
- ♦ supports, extends and reinforces the content of CAPS Grade R Mathematics. It does not replace CAPS and it assumes that teachers have some prior knowledge and understanding of CAPS Grade R Mathematics.
- ♦ promotes focus time so that learners can practise newly acquired skills and knowledge, and embeds practise opportunities in planned maths activities and experiences.
- ♦ gives teachers a detailed guide that supports teaching and learning.
- ♦ is guided by eight principles that contribute to successful teaching and learning.
- ♦ supports teachers in making the link between Grade R Mathematics concepts and later mathematical competence.
- ♦ emphasises the weekly observation of learners as a tool for gathering information about each child to inform planning and assessment.

Refer to page 10 of the *Concept Guide* to read more about the Grade R Mathematics Improvement Programme.

Read more about the Maths Programme's guiding principles on pages 14–73 of the *Concept Guide*.

♦ imisebenzi yekilasi lonke

♦ imisebenzi yamaqembu amancane: imisebenzi eholwa uthisha nemisebenzi ezimele (eseceleni)

♦ imisebenzi ekhethwe ngokukhululeka.

Uhlelo LweZibalo:

♦ lusekela, lwelula futhi lugcizelela okuqukethwe yi-CAPS YeZibalo ZeBanga R. Alungeni endaweni ye-CAPS futhi luthatha ngokuthi othisha banolwazi nokuqonda kwaphambilini lwe-CAPS yeZibalo YeBanga R.

♦ lukhuthaza isikhathi sokugxila ukuze abafundi bazijwayeze amakhono abasanda kuwathola kanye nolwazi, futhi ishumeke amathuba okuzilolonga emisebenzini ehleliwe yezibalo kanye nesipiliyoni.

♦ lunikeza othisha umhlahlandlela onemininingwane oweseka ukufundisa nokufunda.

♦ luqondiswa yizimiso eziyisishiyagalombili ezinomthelela ekufundiseni nasekufundeni ngempumelelo.

♦ lusekela othisha ekwenzeni ukuxhumana phakathi kokuqonda isifundo seZibalo zeBanga R futhi kamuva nekhono lezibalo.

♦ lugcizelela ukubhekwa kwabafundi kwamasonto onke njengethuluzi lokuqoqa ulwazi ngengane ngayinye, into ezosiza ekuhleleni nasekuhloleni.

Bhekisa ekhasini 11 *Umhlahlandlela Wokuqonda Isifundo* ukufunda kabanzi ngoHlelo Lokuthuthukisa Izibalo ZeBanga R.

Funda kabanzi ngemigomo eyimihlahlandlela yoHlelo LweZibalo ekhasini 14–73 lo*Mhlahlandlela Wokuqonda Isifundo*.

Time allocation for Mathematics in Grade R (10 minutes)

Facilitator's notes
♦ PPT: Time allocation in Grade R (*Concept Guide*, page 76/77, Table 1). ♦ Refer participants to the *Concept Guide*, pages 74–77.

CAPS suggests that the instructional time for Mathematics in Grade R should be 23 hours per week. However, CAPS does not provide a weighting or a breakdown of the time that should be spent on each Content Area for each term.

Maths in the Grade R daily programme (20 minutes)

The daily programme in Grade R is not a timetable like the ones used in higher grades.

In Grade R the day is organised around the developmental needs of the learners. The day begins with time to talk and sing and ends with rest and stories. During the day, teachers plan activities for Home Language, Life Skills and Mathematics knowledge and understanding. During play and interaction with the teacher and other learners there are many opportunities for the integration of new skills and time to practise what has been learnt.

The Maths Programme suggests a way of organising the daily programme with focus time for Home Language, Life Skills and Mathematics.

Facilitator's notes
♦ PPT: Grade R daily programme (*Concept Guide*, page 80/81, Figure 31). ♦ Refer participants to the *Concept Guide*, pages 78–81. ♦ Ask participants to complete **Activity 5** in their groups. Have each group report back and ask for examples of how maths is taught and learnt in different parts of the daily programme, for example: during routine times, whole class activities, teacher-guided activities, small group workstations and free choice activities. ♦ Discuss Mathematics focus time in relation to Home Language focus time, which has already been introduced.

Isikhathi esibekelwe Izibalo eBangeni R   (10 imizuzu)

Amanothi omdidiyeli
♦ PPT: Isikhathi esibekiwe eBangeni R (*Umhlahlandlela Wokuqonda Isifundo*, ikhasi 76/77, Ithebhula 1).
♦ Bhekisa ababambiqhaza ku*Mhlahlandlela Wokuqonda Isifundo*, amakhasi 74–77.

I-CAPS iphakamisa ukuthi isikhathi semiyalo seZibalo eBangeni R kube amahora angama-23 ngeviki. Kodwa-ke, i-CAPS ayihlinzeki ngesilinganiso noma ukuhlakazwa kwesikhathi okumele sichithwe eNgxenyeni Yolwazi ngayinye ethemini ngayinye.

Izibalo eBangeni R Uhlelo lwansuku zonke   (20 imizuzu)

Uhlelo lwansuku zonke eBangeni R akulona uhlelo lwesikhathi olufana nalolo olusetshenziswa emabangeni aphakeme.

EBangeni R usuku luhlelwa ngokuhambisana nezidingo zokuthuthuka zabafundi. Usuku luqala ngesikhathi sokuxoxa nokucula bese luphetha ngokuphumula nezindaba. Phakathi nosuku, othisha bahlela imisebenzi yoLimi Lwasekhaya, Amakhono Empilo kanye nolwazi nokuqonda Izibalo. Ngesikhathi sokudlala kanye nokuxhumana kukathisha nezinye izingane kukhona amathuba amaningi okudidiyela amakhono amasha kanye nesikhathi sokuzejwayeza lokho okufundiwe.

Uhlelo LweZibalo lukhomba indlela yokuhlela uhlelo lwansuku zonke ngesikhathi sokugxila oLimini Lwasekhaya, Amakhono Empilo kanye neZibalo.

Amanothi omdidiyeli
♦ PPT: Uhlelo lwansuku zonke lwebanga (*Umhlahlandlela Wokuqonda Isifundo*, ikhasi 80/81, Umfanekiso 31).
♦ Bhekisa ababambiqhaza ku*Mhlahlandlela Wokuqonda Isifundo*, amakhasi 78–81.
♦ Cela ababambiqhaza ukuthi baqedele **Umsebenzi 5** amaqenjini abo. Yenza ukuthi iqembu ngalinye lenze imbuyisambiko bese ucela izibonelo zokuthi iZibalo zifundiswa futhi zifundwa kanjani ezingxenyeni ezahlukene zohlelo lwansuku zonke, isibonelo: ngesikhathi senqubo eyejwayelekile emisiwe, imisebenzi yekilasi lonke, imisebenzi eholwa uthisha, iziteshi zokusebenzela zamaqembu amancane kanye nemisebenzi ekhethwe ngokukhululeka.
♦ Xoxani ngesikhathi sokugxila eZibalweni ngokuphathelene nesikhathi sokugxila oLimini Lwasekhaya, esesivele sethuliwe.

Daily Mathematics focus time

Facilitator's notes

♦ PPT: Daily Mathematics focus time (*Concept Guide*, page 82/83, Figure 33, or the diagram below). Summarise the information on pages 84–93 of the *Concept Guide*.

Guidelines for classroom organisation and management of the Mathematics focus time

1. Whole class maths sessions

♦ 15–25 minutes

♦ All learners sit in a circle together with the teacher.

♦ Activities:
   - Consolidate and provide practice of previously taught concepts.
   - Introduce a new concept.
   - Extend the concept that is the main focus of the week:
      oral/rote counting (rhymes, songs, sequencing numbers)
      counting objects
      posing problems, memory games.
   - Give instructions for the small group activities at the workstations.

2. Small group maths sessions

♦ The class is divided into five groups of six to eight learners each.

♦ Each day one group works with the teacher (teacher-guided activity) and four groups work independently on planned maths activities at the workstations.

♦ Groups rotate daily.

♦ Activities:
   - Consolidate and provide opportunities to practise previously taught concepts.
   - Investigate the new concept that is the main focus of the week.
   - Provide opportunities to practise the concept that is the main focus of the week.

♦ The **teacher-guided activity** focuses on working with one group of learners to:
   - consolidate and practise previously taught concepts
   - deepen the understanding of a new concept
   - observe learners' progress.

3. Free choice activities

♦ Additional free choice activities with a maths focus are provided for learners who have completed their small group activity.

The Language training introduced you to a two-week teaching and learning cycle. The Maths Programme also follows a structured approach to organising the class for the Mathematics focus time. The Maths Programme's teaching and learning cycle is based on five small group activities that are rotated during one week. The lessons begin on a Monday and end on a Friday.

Isikhathi sansuku zonke sokugxila eZibalweni

Amanothi omdidyeli
♦ PPT: Isikhathi sokugxila ezibalweni (*Umhlahlandlela Wokuqonda Isifundo*, ikhasi 82/83, Umfanekiso 33, noma idayagramu engezansi). Qoqa ulwazi olusemakhasini 84–93 embhalweni, *Umhlahlandlela Wokuqonda Isifundo*.
Imihlahlandlela yokuhlela kanye nokuphatha ikilasi esikhathini sokugxila eZibalweni
1. Iseshini yeZibalo yekilasi lonke
♦ Imizuzu eyi-15–25
♦ Abafundi bonke bahlala babe yisikokela nothisha.
♦ Imisebenzi:
- Hlanganisa bese uhlinzeka ngokuzejwayeza ulwazi olufundiswe phambilini.
- Yethula imiqondo emisha.
- Yelula umqondo okugxilwe kuwo esontweni:
ukubala ngomlomo/ngekhanda (isigqi, amaculo, ukulandelanisa izinombolo)
izinto zokubala
ukubeka izinkinga, imidlalo yenkumbulo.
- Nika imiyalo yemisebenzi yamaqembu amancane eziteshini zokusebenzela.
2. Amaseshini ezibalo amaqembu amancane
♦ Ikilasi lehlukaniswe laba amaqembu amahlanu abafundi abayisithupha ukuya kwabayisishiyagalombili ngalinye.
♦ Ngosuku ngalunye iqembu elilodwa lisebenza nothisha (umsebenzi oholwa uthisha) bese amaqembu amane esebenza ngokuzimela emisebenzini yezibalo ehleliwe eziteshini zokusebenzela.
♦ Amaqembu ayashintshana nsuku zonke.
♦ Imisebenzi:
- Hlanganisa bese uhlinzeka ngamathuba okuzejwayeza ulwazi olufundiswe phambilini.
- Phenya ngomqondo omusha okuyiwo okugxilwe kuwo esontweni:
- Hlinzeka ngamathuba okuzejwayeza umqondo okuyiwo okugxilwe kuwo esontweni:
♦ **Umsebenzi oholwa nguthisha** ugxila ekusebenzeni neqembu elilodwa labafundi:
- ukuhlanganisa nokuzejwayeza umqondo ofundiswe phambilini.
- ukugxilisa ukuqonda umqondo omusha
- ukubheka inqubekelaphambili yabafundi.
3. Imisebenzi ekhethwe ngokukhululeka
♦ Imisebenzi ekhethwe ngokukhululeka eyengeziwe egxile ezibalweni ihlinzekwa abafundi asebaphothule imisebenzi yabo yamaqembu amancane.
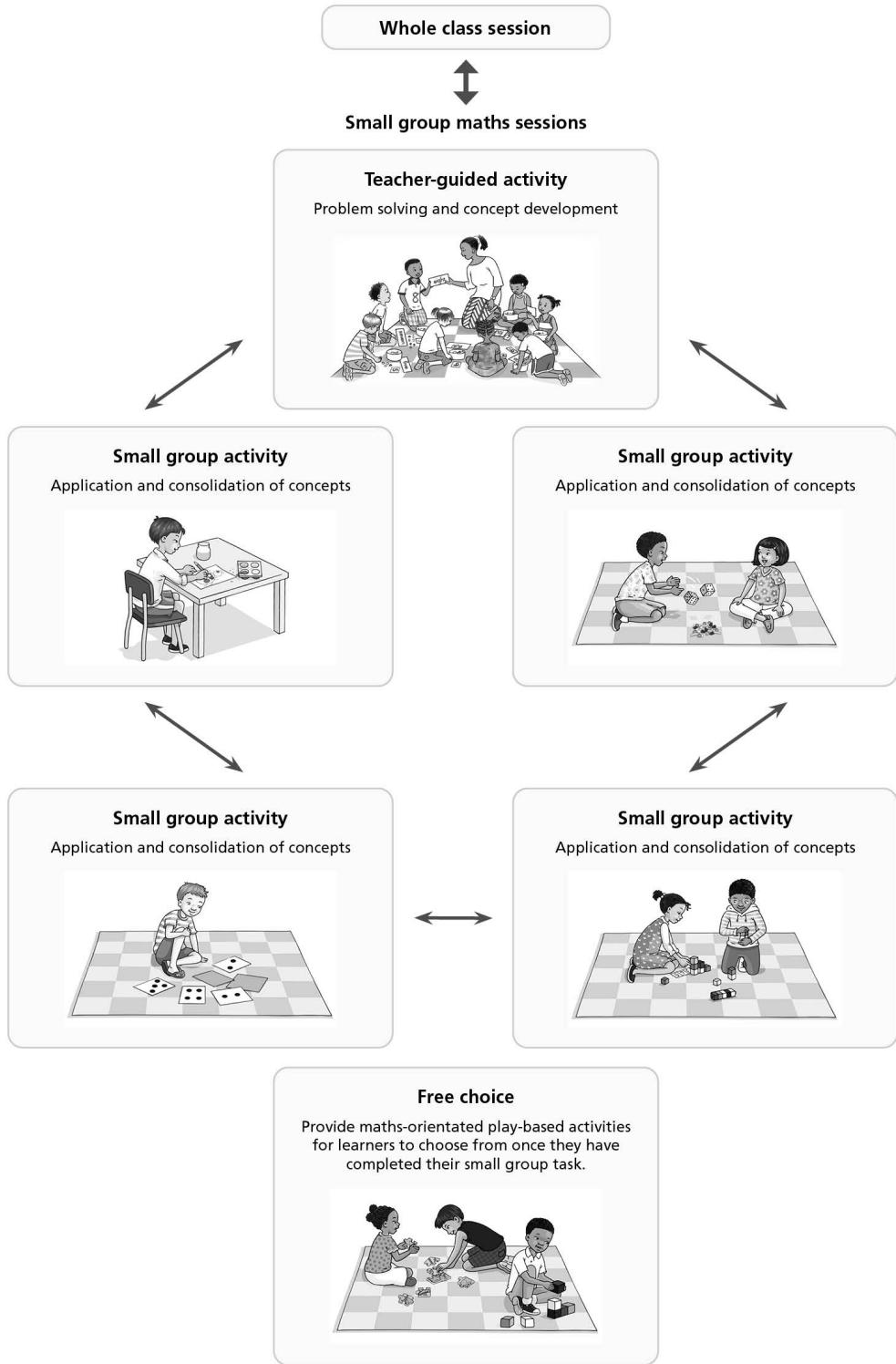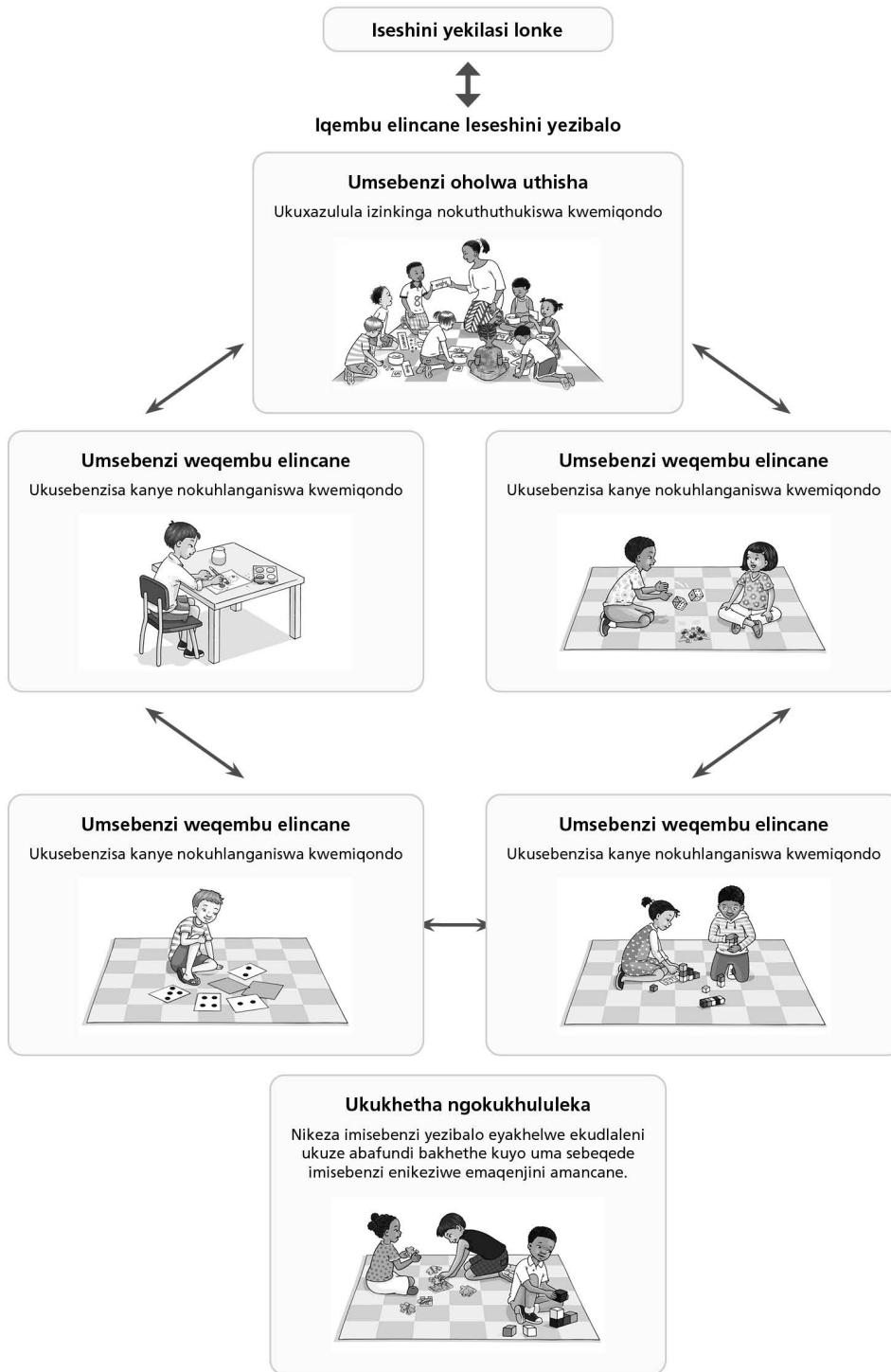
Ukuqeqeshwa oLimini kukwethule emjikelezweni wamasonto amabili okufundisa kanye nokufunda. Uhlelo LweZibalo lulandela isu lohlaka olwakhiwe ngendlela lokulungiselela ikilasi isikhathi sokugxila ezibalweni. Umjikelezo Wohlelo LweZibalo wokufundisa kanye nokufunda usekelwe emisebenzini yamaqembu amancane amahlanu ashintshanayo esontweni elilodwa. Izifundo ziqala ngoMsombuluko ziphele ngoLwesihlanu.

Whole class session

↕

Small group maths sessions

Teacher-guided activity

Problem solving and concept development

Small group activity

Application and consolidation of concepts

Small group activity

Application and consolidation of concepts

Small group activity

Application and consolidation of concepts

Small group activity

Application and consolidation of concepts

Free choice

Provide maths-orientated play-based activities for learners to choose from once they have completed their small group task.

Refer to pages 82–93 of the *Concept Guide* to read more about organising your classroom for the daily Mathematics focus session.

Iseshini yekilasi lonke

↕

Iqembu elincane leseshini yezibalo

Umsebenzi oholwa uthisha

Ukuxazulula izinkinga nokuthuthukiswa kwemiqondo

Umsebenzi weqembu elincane

Ukusebenzisa kanye nokuhlanganiswa kwemiqondo

Umsebenzi weqembu elincane

Ukusebenzisa kanye nokuhlanganiswa kwemiqondo

Umsebenzi weqembu elincane

Ukusebenzisa kanye nokuhlanganiswa kwemiqondo

Umsebenzi weqembu elincane

Ukusebenzisa kanye nokuhlanganiswa kwemiqondo

Ukukhetha ngokukhululeka

Nikeza imisebenzi yezibalo eyakhelwe ekudlaleni ukuze abafundi bakhethe kuyo uma sebeqede imisebenzi enikeziwe emaqenjini amancane.

Bhekisa emakhasini 82–93 o*Mhlahlandlela Wokuqonda Isifundo* ukuze ufunde kabanzi ngokulungiselela ikilasi lakho amaseshini ansuku zonke okugxila eZibalweni.

Session 2: Numbers, Operations and Relationships

2 hours

Term 1–4 content overview (CAPS)

(45 minutes)

The Maths Programme is aligned to and extends the content of the five Mathematics Content Areas of CAPS. The table on pages 114–137 of the *Concept Guide* provides a content overview of the maths to be taught in Grade R. It also shows what content is to be taught each term.

♦   The text in blue is the content from the CAPS for Grade R Mathematics.

♦   The text in black has been added to extend and build on CAPS.

♦   The topics are sequenced to show a developmental progression from one topic to the next.

Refer to pages 110–113 of the *Concept Guide* and read 1.1, 1.2 and 1.3 on pages 114–117. After reading numbers 1.1, 1.2 and 1.3, complete Activities 7 and 8.

👥 Activity 2

Look through the Term 1–4 content overview for the Content Area: Numbers, Operations and Relationships, in the *Concept Guide* and in the CAPS document. In your group, discuss:

1.   What does the Maths Programme add to the content of CAPS?

_____
_____
_____
_____

Iseshini 2: Izinombolo, Izimpawu kanye Nobudlelwane Bazo

2 amahora

Ithemu 1–4 ukubuka ulwazi ngelibanzi (CAPS) (45 imizuzu)

Amanothi omdidiyeli

♦ PPT: *Umhlahlandlela Wokuqonda Isifundo*, ikhasi 110/111, Umfanekiso 41 kanye neqoqa emakhasini 110–113

♦ Bhekisa ababambiqhaza ku*Mhlahlandlela Wokuqonda Isifundo*, amakhasi 114–137. Chaza ukuthi lokhu kubuka ngelibanzi ulwazi lonke kuhlinzeka ngakho konke ukuhlelela iZibalo kanti kuzosetshenziswa futhi kubhekiswe kukho ekuqeqesheni konke.

♦ PPT: Xoxani ngethebhula. Chaza ukuthi umbhalo oluhlaza sasibhakabhaka uvela ku-CAPS kanti nombhalo onombala omnyama uwulwazi olwengeziwe lokwakha nokwelula Uhlelo LweZibalo lwe-CAPS.

Uhlelo LweZibalo luhambisana futhi lwelula ulwazi lweZingxenye Zolwazi LweZibalo ezinhlanu lwe-CAPS. Ithebhula elisemakhasini 114–137 o*Mhlahlandlela Wokuqonda Isifundo* lihlinzeka ngokubuka kabanzi ulwazi lonke lwezibalo ezizofundiswa eBangeni R. Libuye likhombise nokuthi yiluphi ulwazi okumele lufundiswe ethemini ngayinye.

♦ Umbhalo onombala oluhlaza sasibhakabhaka ulwazi lwe-CAPS lweZibalo zeBanga R.

♦ Umbhalo onombala omnyama wengeziwe ukuze kwelulwe futhi kwakhelwe phezu kwe-CAPS.

♦ Izihloko zilandelaniswa ukuze kukhonjiswe inqubekelaphambili yokuthuthuka ukusuka esihlokweni esisodwa ukuya kwesilandelayo.

Bhekisa emakhasini 110–113 o*Mhlahlandlela Wokuqonda Isifundo* bese ufunda u-1.1, 1.2 no-1.3 emakhasini 114–117. Ngemva kokufunda izinombolo 1.1, 1.2 no-1.3, qedela Umsebenzi 7 no-8.

Amanothi omdidiyeli

♦ Yenza ababambiqhaza baqedele **Umsebenzi 7** amaqenjini abo. Cela umuntu oyedwa eqenjini ngalinye ukuthi abelane ngemicabango yabo.

Umsebenzi 2

Bheka ukubuka ngelibanzi kolwazi lonke lweThemu 1–4 kweNgxenye Yolwazi: Izinombolo, Izimpawu kanye Nobudlelwane Bazo, ku*Mhlahlandlela Wokuqonda Isifundo* kanye nakudokhumenti ye-CAPS. Eqenjini lakho, xoxani ngalokhu:

1. Ngabe Uhlelo LweZibalo lwengeza ini olwazini oluqukethwe yi-CAPS?

_____

_____

_____

_____

Refer to the black text on pages 114–117 of the *Concept Guide.* Main content added: dot cards, multiple representations, structure beads, jumping track, number washing line, matching with number symbol/word, breaking down and building up collections, ordering of number symbols, ordinal numbers in everyday activities, orally solving problems, equal sharing.

2. What counting concepts are covered in Numbers, Operations and Relationships in Term 1?

_____

_____

_____

_____

Refer to the black text on pages 114–115 of the *Concept Guide*: one-to-one correspondence, estimation, matching, multiple representations, counting forwards 1–10, counting backwards 5–1.

Facilitator's notes

♦ Explain that during the workshops the focus is on the implementation of the Maths Programme and that participants need to understand the maths concepts themselves so that they are able to support their learners. This workshop provides an understanding of important concepts in Numbers, Operations and Relationships.

Important concepts in Numbers, Operations and Relationships (1¼ hours)

Counting

Oral counting (rhythmic, rote or acoustic counting)

Facilitator's notes

♦ Ask participants to divide themselves into small groups of five and then to find an open space in the training room. Refer participants to **Activity 8** and let them say the rhyme, *One, two, three, four, five* (*Activity Guide: Term 1*, page 196) with actions.

♦ In their small groups, participants reflect on the activity and the counting skills they used and complete **Activity 8** and **9**.

♦ Ask the groups to report back on their discussions. List each new counting skill on the flipchart.

♦ Make sure that participants understand that oral counting involves memorising the names of numbers and does not mean that children can count.

♦ Read the information on oral counting below.

♦ Discuss the following terms: oral, rhythmic, rote and acoustic counting.

♦ PPT: such as: book, chair, dog, house.

♦ Explain that for learners the counting sequence of number names does not initially have any association with the concept of number, e.g. like: book, chair, dog, house, … Learners gradually understand that each word stands alone in the sequence and that each word represents a specific number.

Bhekisa embhalweni omnyama ekhasini 114–117 lo*Mhlahlandlela Wokuqonda Isifundo.* Ulwazi oluyinhloko olwengeziwe: amakhadi anamachashazi, ukwethulwa kaningana, ubuhlalu bokuhlela, umkhondo wokugxuma, ulayini wokweneka wezinombolo, ukuqondanisa nophawu lwenombolo/igama, ukuhlakaza kanye nokwakha amaqoqo, ukuhlela izimpawu zezinombolo, izinombolo ezisho isikhundla emisebenzini yansuku zonke, ukusombulula izinkinga ngomlomo, ukwabelana ngokulingana.

2. Yiluphi ulwazi lokubala oluhlanganiswe eziNombolweni, Izimpawu kanye Nobudlelwane Bazo Ethemini 1?

_____

_____

_____

_____

Bhekisa embhalweni omnyama osekhasini 114–115 loM*hlahlandlela Wokuqonda Isifundo*: okukodwa okuqondene nokunye, ukulinganisela, ukufanisa, izethulo eziningi, ukubala uye phambili 1–10, ukubala uye emuva 5–1.

<table>
<tr><td>**Amanothi omdidiyeli**</td></tr>
<tr><td>

♦ Chaza ukuthi ngesikhathi semihlangano yokucobelelana ngolwazi kugxilwa ekulusebenziseni Uhlelo LweZibalo nokuthi ababambiqhaza badinga ukuqonda umqondo (*concept*) wezibalo ngokwabo ukuze bakwazi ukweseka abafundi babo. Lo mhlangano wokucobelelana ngolwazi uhlinzeka ngokuqondisisa imiqondo ebalulekile yeziNombolo, Izimpawu kanye Nobudlelwane Bazo.

</td></tr>
</table>

Imiqondo ebalulekile yeziNombolo, Izimpawu kanye Nobudlelwane Bazo   (1¼ ihora)

Ukubala
Ukubala ngomlomo (i-rote noma ukubala ngesigqi)

<table>
<tr><td>**Amanothi omdidiyeli**</td></tr>
<tr><td>

♦ Cela ababambiqhaza ukuthi bazihlukanise babe amaqoqo amancane abahlanu bese uthola indawo evulekile egumbini lokuqeqesha. Bhekisa ababambiqhaza ku**Msebenzi 8** bese ubavumela ukuthi basho umlolozelo**,** *Kunye, kubili, kuthathu, kune, kuhlanu* (*Umhlahlandlela Wokuqonda Isifundo: Ithemu 1*, ikhasi 197) ngeminyakazo.

♦ Emaqenjini abo amancane, ababambiqhaza bazindla ngomsebenzi kanye namakhono okubala abawasebenzisile futhi baqedele **Umsebenzi 8** kanye no-**9**.

♦ Cela amaqembu ukuthi enze imbuyisambiko ngezingxoxo zawo. Bhala ikhono elisha lokubala ngalinye eshadini eliphenywayo.

♦ Qinisekisa ukuthi ababambiqhaza bayaqonda ukuthi ukubala ngomlomo kubandakanya ukubamba ngekhanda amagama ezinombolo kanti akusho ukuthi izingane ziyakwazi ukubala.

♦ Funda imininingwane yokubala ngomlomo ngezansi.

♦ Xoxa ngala magama alandelayo: ukubala ngomlomo, ngesigqi, nge-*rote* kanye nezwi.

♦ PPT: njengokuthi: incwadi, isitulo, inja, indlu.

♦ Chaza ukuthi kubafundi ukulandelana kokubala kwamagama ezinombolo ekuqaleni akuhlangene nomqondo wenombolo, isib.: incwadi, isihlalo, inja, indlu, ... Abafundi baqonda kancane kancane ukuthi igama ngalinye lizimele lodwa ekulandelaneni nokuthi igama ngalinye limele inombolo ethile.

</td></tr>
</table>

Oral counting involves a learner memorising the names and counting order of numbers, often in a rhyme or song.

In Grade R learners learn the correct order of number names and repeat the sequence daily. The purpose of counting out loud is to help learners understand that when we count aloud there is a set order for the numbers: beginning at one, then two, three, four, etc. Initially learners do not fully understand the meaning of the number names and might skip numbers in a counting sequence. Reciting a rhyme or series of numbers orally means repeating the number names from memory. Even when learners count in steps of two, five and ten they are using their knowledge of this number order. Memorising number names and repeating them in the correct counting order does not necessarily mean that learners can count. This is different from counting to find out 'how much'.

Arrange yourselves into small groups of five and find an open space in the training room for the next activity.

Activity 3

1. In your small groups, say the rhyme, *One, two, three, four, five*, with actions.

One, two, three, four, five
One, two, three, four, five
Once I caught a fish alive.
'Why did you let it go?'
Because it bit my finger so.
One, two, three, four, five
Then I caught a frog alive.
'What did you do with that?'
I said hello and put it back.

2. Do you think using a rhyme like this one is good practice for teaching counting in Grade R? Give reasons for your answer.

_____

_____

_____

Refer to pages 76 and 196 of *Activity Guide: Term 1* for this rhyme.

Ukubala ngomlomo kubandakanya ukuthi umfundi abambe ngekhanda amagama nokubala ngokulandelana kwezinombolo, ngokuvamile emlolozelweni noma eculweni.

EBangeni R abafundi bafunda ukulandelana okufanele kwamagama ezinombolo bese bephinda ukulandelana nsuku zonke. Inhloso yokubala ngokuzwakalayo ukusiza abafundi baqonde ukuthi uma sibala ngokuzwakalayo kunohlelo lokulandelana kwezinombolo: siqala ngeyodwa, bese kuba ezimbili, ezintathu, ezine, njll. Ekuqaleni abafundi abayiqondi ngokugcwele incazelo yamagama ezinombolo futhi bangase beqe izinombolo ekulandelaneni kokubala. Ukuphindaphinda imvumelwano noma uchungechunge lwezinombolo ngomlomo kusho ukuphinda amagama ezinombolo ngekhanda. Ngisho nalapho abafundi bebala ngezinyathelo ezimbili, ezinhlanu neshumi basebenzisa ulwazi lwabo lwalokhu kulandelana kwezinombolo. Ukwazi ngekhanda amagama ezinombolo nokuwaphinda ngokulandelana akusho ukuthi abafundi bangakwazi ukubala. Lokhu kwehlukile ekubaleni ukuthola ukuthi 'kungaki'.

Zihleleni nibe ngamaqembu amancane abantu abahlanu bese nithola indawo evulekile egumbini lokuziqeqesha ukwenza umsebenzi olandelayo.

👥 Umsebenzi 3

1. Emaqenjini enu amancane, yishoni umlolozelo, *Kunye, kubili, kuthathu, kune, kuhlanu* nenze neminyakazo.

Kunye, kubili, kuthathu, kune, kuhlanu
Kunye, kubili, kuthathu, kune, kuhlanu,
Ngake ngabamba inhlanz' iphila.
'Was' uyidedelani na?'
Ngoba yaluma umunwe wami.
Kunye, kubili, kuthathu, kune, kuhlanu,
Ngase ngibamb' ixoxo liphila.
'Wase wenzani ngalo na?'
Ngalibingelela, ngalidedela.

2. Ucabanga ukuthi ukusebenzisa umlolozelo ofana nalona kuwumkhuba omuhle wokufundisa ukubala eBangeni R? Nikeza izizathu zempendulo yakho.

_____

_____

_____

Bheka ekhasini 77 nele-197 ku*Mhlahlandlela Wemisebenzi: Ithemu 1* ngokuphathelene nalo mlolozelo.

Activity 4

In the same small groups, answer these questions:

1. What would learners learn by saying this rhyme?

_____

_____

_____

_____

2. What do learners learn when they repeat a sequence of numbers in the correct counting order?

_____

_____

_____

_____

Count in ones in the correct order.
Sequence of the counting numbers.
Correct number words.
Distinguish the number words.
Helps with memorising the sequence of counting order.

Counting objects (rational counting)

Facilitator's notes
♦ Demonstrate how to count objects using one-to-one correspondence.
♦ Ask participants to take two handfuls of counters from the *Resource Kit* equipment in the tub on their table and place them in front of them. Ask them to say which pile has more/fewer counters. Ask participants how they can determine this without counting. Prompt them to match the elements in each group one-to-one in order to say which group has more/less.
♦ Ask participants to count the items in each group to find out which has more/fewer.
♦ Ask participants what vocabulary was used, e.g. count, one, two, three ..., how many, more, fewer, group.
♦ Read the information about counting objects (rational counting) below.

♦ Make sure that participants understand the difference between oral counting and counting objects:
  - *Oral counting involves memorising and sequencing number words.*
  - *Counting objects involves matching a number word to each object being counted and understanding that the last number said represents the total number counted (how many).*

Umsebenzi 4

Nisemaqenjini amancane afanayo, phendulani le mibuzo:

1. Bazofundani abafundi ngokusho lo mlolozelo?

_____

_____

_____

_____

2. Bafundani abafundi uma bephinda ukulandelana kwezinombolo ngokulandelana okufanele kokubala?

_____

_____

_____

_____

Bala ngakunye ngokulandelana okufanele.

Ukulandelana kwezinombolo zokubala.

Amagama ezinombolo alungile.

Hlukanisa amagama ezinombolo.

Kusiza ukubamba ngekhanda ukuhleleka ngokulandelana kokubala.

Ukubala izinto (ukubala okunomphumela)

Amanothi omdidiyeli
♦ Khombisa indlela yokubala izinto usebenzisa ukuqondana kwento eyodwa nenye.
♦ Cela ababambiqhaza ukuthi bathathe izinto zokubala ezigcwele izandla ezimbili e*Khithini Yezinsiza* esitsheni esisetafuleni labo bese bezibeka phambi kwabo. Bacele ukuthi basho ukuthi iyiphi inqwaba enezinto zokubala eziningi/eziyingcosana. Buza ababambiqhaza ukuthi bangakunquma kanjani lokhu ngaphandle kokubala. Batshele ukuthi baqondanise into nenye eqoqweni ukuze basho ukuthi yiliphi iqoqo elinokuningi/okuyingcosana.
♦ Cela ababambiqhaza ukuthi babale izinto eqoqweni ngalinye ukuze bathole ukuthi yiliphi elinokuningi/okuyingcosana.
♦ Buza ababambiqhaza ukuthi yiluphi ulwazimagama olusetshenzisiwe, isib. ukubala, eyodwa, ezimbili, ezintathu ..., kungaki, kuningi, kuyingcosana, iqoqo.
♦ Funda ulwazi ngokubala izinto (ukubala okunengqondo) ngezansi.
♦ Qiniseka ukuthi ababambiqhaza bayawuqonda umehluko phakathi kokubala ngomlomo nokubala izinto:
- ***Ukubala ngomlomo*** *kuhlanganisa ukubamba ngekhanda nokulandelanisa amagama ezinombolo.*
- ***Ukubala izinto*** *kuhlanganisa ukufanisa igama lenombolo nento ngayinye ebalwayo kanye nokuqonda ukuthi inombolo yokugcina eshiwo imele isamba salokho okubaliwe (ukuthi kungaki).*

Counting objects involves one-to-one correspondence. This means that each object or event to be counted is matched with a number word. To count 'how many', learners need to realise that each object in a collection gets a number word ('one, two, three, four …') and that you count each object only once.

Once learners know the order of the counting numbers, they begin to understand that each number in the counting sequence is one bigger than the number before and one smaller than the next number. They:
♦   can mentally compare numbers and see that two is one more than one and that three is one more than two.
♦   realise that numbers grow by one each time.
♦   realise that any number in the counting sequence is exactly one more than the previous number.

Facilitator's notes

♦   Explain to participants that learners do not learn number concepts and skills in isolation. They need daily experiences with number in different contexts that involve oral counting, counting objects and representing a number in different ways.
♦   Emphasise that learners are not required to write number symbols in Grade R. Learning to write number symbols should be regarded the same way as Emergent Writing. Refer to Numbers, Operations and Relationships in the CAPS document and to pages 114–117 of the *Concept Guide*.

Video 3

Activity Guide: Term 1, Week 2, Teacher-guided activity #2, 3 (page 46/47)

Watch the video of learners counting a collection of objects. This is a teacher-guided activity. Notice how the teacher observes each learner and asks questions to prompt them to share their ideas.

_____

_____

_____

_____

Ukubala izinto kubandakanya okukodwa okuqondene nokunye. Lokhu kusho ukuthi into ngayinye noma isehlakalo okumele sibalwe siqhathaniswe negama lenombolo. Ukuze babale ukuthi 'kungaki', abafundi badinga ukuqonda ukuthi into ngayinye eqoqweni ithola igama lenombolo ('kunye, kubili, kuthathu, kune ...') nokuthi ubala into ngayinye kanye kuphela.

Uma abafundi sebekwazi ukulandelana kwezinombolo zokubala, baqala ukuqonda ukuthi inombolo ngayinye ekulandelaneni kokubala inkulu ngokukodwa kuneyaphambilini kanti incane ngokukodwa kunelandela yona. Bakwazi:

♦ ukuqhathanisa izinombolo ngengqondo futhi babone ukuthi okubili kukhulu ngokukodwa ngaphezu kokukodwa nokuthi okuthathu kungaphezulu ngokukodwa kokubili.

♦ qaphela ukuthi izinombolo zikhula ngeyodwa ngesikhathi ngasinye.

♦ qaphela ukuthi noma iyiphi inombolo ekulandelaneni kokubala ingaphezu kwenombolo engaphambi kwayo.

Amanothi omdidiyeli
♦ Chazela ababambiqhaza ukuthi abafundi abayifundi imiqondo yezinombolo namakhono njengezinto ezizimele nje. Badinga ulwazi lwansuku zonke lwezinombolo ezimweni ezehlukene ezibandakanya ukubala ngomlomo, ukubala izinto kanye nokumelela inombolo ngezindlela ezahlukene.
♦ Gcizelela ukuthi abafundi akudingekile ukuba babhale izimpawu zezinombolo ebangeni R. Ukufunda ukubhala izimpawu zezinombolo kufanele kuthathwe ngendlela efanayo nokuBhala Kokuqala. Bhekisa eziNombolweni, Izimpawu kanye Nobudlelwane Bazo kudokhumenti ye-CAPS kanye nasemakhasini 114–117 ku*Mhlahlandlela Wokuqonda Isifundo*.

Ividiyo 3

Umhlahlandlela Wemisebenzi: Ithemu 1, Isonto 2, Umsebenzi oholwa nguthisha #2, 3 (ikhasi 46/47)

Buka ividiyo yabafundi ababala iqoqo lezinto. Lona umsebenzi oholwa nguthisha. Qaphela ukuthi uthisha ubheka kanjani umfundi ngamunye bese ubuza imibuzo ukuze amkhuthaze ukuthi abelane nabanye ngemibono yakhe.

_____

_____

_____

_____

Representing numbers

Facilitator's notes

- ♦ Say to participants: *Show me five*.
- ♦ Participants will most likely hold up five fingers. Explain that the concept or idea of a number is in our heads and that we cannot see numbers. We can't see them, but we can represent them in different ways, for example, using fingers, counters, claps, birthday candles. We represent numbers to show 'how many'.
- ♦ Ask participants to think about the different ways to represent a number and ask them to complete **Activity 10** individually. Then ask participants to share their ideas.
- ♦ Use the information below to summarise how learners begin to represent numbers.

Activity 5

How many different ways can you find to represent the number 5?

_____

_____

_____

_____

Learners begin to represent numbers using their fingers, and then gradually start to use other methods, such as objects, drawings, pictures or symbols. Learners progress:

- ♦ from using actual objects to represent (stand in for) numbers, e.g. lemons, sweets, pencils, leaves
- ♦ to using pictures or drawings to represent the objects, e.g. a drawing of a lemon, person, car
- ♦ to using counters to represent the objects or pictures, e.g. plastic discs to show the number of lemons
- ♦ to using marks to represent the physical objects and pictures, e.g. circles, dots, tally marks, clapping sounds, drumbeats, stamping feet
- ♦ to using number symbols and number words, e.g. '2' or 'two'.

Facilitator's notes

- ♦ PPT: Explain that the Maths Programme uses an approach of teaching one number at a time and follows the same routine for each number taught. Summarise the text below to provide a brief outline of the routine.
- ♦ Tell the *Number 1 story* on page 196 of *Activity Guide: Term 1*.

Ukumela izinombolo

Umsebenzi 5

Zingaki izindlela ezahlukene ongazithola zokumelwa kwenombolo 5?

_____

_____

_____

_____

Abafundi bangaqala ukwenza okungamela izinombolo uma besebenzisa iminwe bese beqala kancane ukusebenzisa ezinye izindlela, njengezinto, imidwebo, izithombe noma izimpawu. Abafundi baqhubeka:

- besuka ekusebenziseni izinto zangempela ukumela izinombolo, isib. Olamula amaswidi, amapensela, amahlamvu
- baye ekusebenziseni izithombe noma imidwebo ukumela izinto, isib. umdwebo kalamula, umuntu, imoto
- baye ekusebenziseni izinto zokubala ukumela izinto noma izithombe, isib. amadiski epulastiki ukukhombisa inani lolamula
- baye ekusebenziseni omaka ukumela izinto eziphathekayo nezithombe, izib. izindilinga, amachashazi, ukuhlanganisa amamaki, umsindo wokushaya izandla, ukushaya isigubhu, ukugxoba ngezinyawo
- baye ekusebenziseni izimpawu zezinombolo ezibhaliwe namagama ezinombolo, isib. '2' noma 'kubili'.

The Maths Programme uses an approach that introduces numbers 0–10 one at a time and follows the same teaching routine for each number.

♦ A story is told about the number. This raises learners' interest and provides a familiar, fun context that connects with learners' lives and interests.

♦ Each number has a particular animal character. The story featuring the animal is used to build a number frieze to represent the number.

♦ Dramatising the story provides opportunities for learners to respond kinaesthetically (learning through acting and moving their bodies).

♦ Objects are collected to represent the number in various ways. The objects are put in the maths area.

♦ Learners match objects to pictures, dot cards, number symbols and number words.

♦ The *Poster Book* provides real-life contexts to stimulate discussion and encourage problem solving.

The number 'one' is introduced in the second week of Term 1 to familiarise learners with this routine. The same routine is used as each new number is introduced, adding one more to the number the learners learnt previously.

Before completing the next activity, interact with the facilitator as she tells the story for number 1 and builds up the number frieze using the house template and animal frieze cards. After listening to the story, complete Activity 11.

Facilitator's notes
♦ After the demonstration, ask participants to complete **Activity 11**.
♦ Allow participants to discuss the question in small groups and then to share their ideas in the big group.
♦ Reflect on the vocabulary used during the activity, e.g. one, number, number symbol, number name, number word, how many, group, collection, count, the same.

Uhlelo LweZibalo lusebenzisa indlela yokufundisa eyethula izinombolo 0–10, eyodwa ngesikhathi esisodwa futhi lulandela inqubo efanayo ngenombolo ngayinye efundiswayo.

- Kuxoxwa indaba ngenombolo. Lokhu kuphakamisa intshisekelo yabafundi futhi kunikeza isimo esejwayelekile, esithokozisayo esixhumana nempilo yabafundi kanye nalokho abakuthandayo.

- Inombolo ngayinye inomlingiswa othile oyisilwane. Indaba equkethe isilwane isetshenziselwa ukwakha ifrizi yenombolo ukuze imele inombolo.

- Ukulingisa indaba kunikeza abafundi amathuba okwenanela ngokunyakaza (ukufunda ngokudlala nangokunyakazisa imizimba yabo).

- Kuqoqwa izinto ukuze zimele inombolo ngezindlela ezahlukene. Izinto zibekwa endaweni yezibalo.

- Abafundi baqondanisa izinto nezithombe, amakhadi anamachashazi, izimpawu zezinombolo namagama ezinombolo.

- *Ibhuku Lamaphosta* lihlinzeka ngolwazi lwempilo yangempela ukuze kugqugquzelwe ingxoxo kubuye kukhuthazwe ukuxazulula izinkinga.

Inombolo u-'kunye' yethulwa esontweni lesibili leThemu 1 ukuze abafundi bajwayelane nale nqubo. Kusetshenziswa inqubo efanayo lapho kwethulwa inombolo entsha ngayinye, kwengezwa enye enombolweni abafundi abayifunde phambilini.

Ngaphambi kokuba uqedele umsebenzi olandelayo, xoxa nomdidiyeli ngenkathi exoxa indaba yenombolo 1 nalapho akha ifrizi yezinombolo esebenzisa ithempulethi yendlu kanye namakhadi efrizi yezilwane. Ngemva kokulalela indaba, qedela Umsebenzi 11.

Activity 6

What are the different ways that the number 1 was represented in the story?

_____

_____

_____

_____

Picture, dot, number symbol, number word

Umsebenzi 6

Yiziphi izindlela ezehlukene inombolo 1 emelwe ngazo endabeni?

_____

_____

_____

_____

Isithombe, ichashazi, uphawu lwenombolo, igama lenombolo

Session 3: Implementing the five-group teaching model

2 hours

We have already discussed how to organise your classroom for maths teaching and learning during Mathematics focus time. This section outlines how to plan and implement the Maths Programme and focuses on preparing for the teaching of Weeks 1 and 2 of Term 1.

Term 1 Content Summary (Weeks 1–2)   (1 hour)

Facilitator's notes

♦ PPT: Daily Mathematics focus time (*Concept Guide*, page 82, Figure 33) and Week 1 of Appendix B.

♦ Refer participants to Week 1 of Appendix B: Term 1 Weekly Content Summary (Weeks 1–2). Explain that the Weekly Content Summary provides a summary of the maths content for each week. Explain that this framework was developed and then the content of the *Activity Guides* was written.

♦ Outline the different features of the week. Read the whole class activities, teacher-guided activity and independent small group (workstation) activities. Have participants work in groups to complete **Activity 12**.

♦ Focus on the structure of the Weekly Content Summary:
 - Content Area, Topic, New knowledge, Practise
 - Whole class activities: done with all the learners, activities linked to the Content Area and Topic, involves a routine that includes rhymes/songs, oral counting and counting objects.
 - Teacher-guided small group activity: focuses specifically on the concepts to be taught, involves a small group of six to eight learners.
 - Independent small group (workstation) activities: provide practice and consolidation of the concept being introduced in the whole class and teacher-guided activities.

♦ Explain that the Weekly Content Summary provides a structure and framework for planning the Mathematics focus time each week.

Appendix B: Term 1 Weekly Content Summary (Weeks 1–2) provides a summary of the content and offers suggestions for teaching and learning maths for each week with the following information:

♦ main Content Area Focus for the week

♦ topic(s) to be covered

♦ New knowledge and Practise focus for the week

♦ suggested activities for whole class and small groups (teacher-guided activity and workstation activities) for the week.

Iseshini 3: Ukusebenzisa imodeli yokufundisa yamaqembu amahlanu

2 amahora

Sesixoxile vele ngokuthi ungalihlela kanjani ikilasi lakho ngokuphathelene nokufundisa nokufunda iZibalo ngesikhathi sokugxila ezibalweni. Lesi sigaba siveza indlela yokuhlela nokusebenzisa Uhlelo LweZibalo futhi sigxile ekulungiseleleni ukufundisa kwamaSonto 1 no-2 eThemu 1.

Ithemu 1 Iqoqa (lolwazi) lokuqukethwe (Amasonto 1–2)   (1 ihora)

Amanothi omdidiyeli
♦   PPT: Isikhathi sansuku zonke sokugxila ezibalweni (*Umhlahlandlela Wokuqonda Isifundo*, ikhasi 83i) kanye neSonto 1 leSithasiselo B.
♦   Bhekisa ababambiqhaza eSontweni 1 leSithasiselo B: Ithemu 1 Iqoqa Lokuqukethwe Lamasonto Onke (Amasonto 1–2). Chaza ukuthi Iqoqa Lokuqukethwe Lamasonto onke linikeza iqoqa lokuqukethwe kweZibalo kwesonto ngalinye. Chaza ukuthi kwakhiwe lolu hlaka, kamuva kwase kubhalwa okuqukethwe *kweMihlahlandlela Yemisebenzi.*
♦   Chaza izimpawu ezahlukene zesonto. Funda imisebenzi yekilasi lonke, umsebenzi oholwa nguthisha kanye nemisebenzi yamaqembu amancane azimele (indawo yokusebenzela). Yenza ababambiqhaza basebenze amaqenjini ukuze baqedele **Umsebenzi 12**.

♦   Gxila esakhiweni seQoqa Lokuqukethwe Lamasonto Onke:
    - Ingxenye Yolwazi, Isihloko, Ulwazi olusha, Ukuzejwayeza
    - Imisebenzi yekilasi lonke: eyenziwa nabo bonke abafundi, imisebenzi exhumene neZingxenye Zolwazi kanye neSihloko, ibandakanya inqubo ehlanganisa imilolozelo/amaculo, ukubala ngomlomo nokubala izinto.
    - Umsebenzi weqembu oholwa nguthisha: ugxile kakhulu emiqondweni okumele ifundiswe, ubandakanya iqembu elincane labafundi abayisithupha kuya kwabayisishiyagalombili.
    - Imisebenzi yeqembu elincane elizimele (indawo yokusebenzela): hlinzeka ngokuzejwayeza nokuhlanganisa umqondo owethulwa ekilasini lonke kanye nemisebenzi eholwa nguthisha.

♦   Chaza ukuthi Iqoqa Lokuqukethwe Lamasonto Onke lihlinzeka ngesakhiwo nohlaka lokuhlela isikhathi sokugxila ezibalweni isonto ngalinye.

Isithasiselo B: Ithemu 1 Iqoqa Lolwazi Lwesonto Ngalinye (Amasonto 1–2) lihlinzeka ngeqoqa lokuqukethwe futhi linikeza iziphakamiso zokufundisa nokufunda izibalo zesonto ngalinye ngolwazi olulandelayo:

♦   Ingxenye Yolwazi Okugxilwe Kuyo esemqoka yesonto

♦   isi(izi)hloko esi(zi)zodingidwa

♦   Ulwazi olusha kanye nokuzejwayeza okugxilwe kukho kwesonto

♦   imisebenzi ephakanyisiwe yekilasi lonke kanye namaqembu amancane (umsebenzi oholwa uthisha kanye nesiteshi sokusebenzela semisebenzi) kwesonto.

Read whole class activities, teacher-guided activity and workstation activities in Appendix B: Term 1 Weekly Content Summary (Weeks 1–2).

Activity 7

Look at Appendix B: Term 1 Weekly Content Summary (Weeks 1–2). Answer the questions.

Questions	Week 1	Week 2
What is the Content Area Focus for the week?	Numbers, Operations and Relationships	Numbers, Operations and Relationships
What are the key concepts that learners will be learning?	Oral counting Counting objects	Number symbols Number words
What new knowledge is introduced?	Oral counting 1–5 Counting objects 1–3 One-to-one correspondence Sequencing events	Number 1 Solving problems in everyday contexts
What skills are being practised in Week 2?		Oral counting 1–5 Counting objects 1–3 Vocabulary from Week 1

Facilitator's notes

♦ PPT: Briefly review the five-group teaching model and how the Maths Programme's focus time activities are organised (whole class, small group and free choice activities).
♦ Remind participants that the focus is on one concept/topic at a time from one Content Area.

Activity Guide: Term 1

Facilitator's notes

♦ Explain that *Activity Guide: Term 1* provides teachers with weekly suggestions for teaching maths in Grade R.
♦ PPT: Features of *Activity Guide: Term 1* (*Activity Guide: Term 1*, page 6/7).
♦ Explain that the next activity will give participants an opportunity to learn more about *Activity Guide: Term 1*.
♦ Let participants work in small groups to complete **Activity 13** and then share their responses with the large group.
♦ Make links between *Activity Guide: Term 1* and the Weekly Content Summary.

Funda imisebenzi yekilasi lonke, umsebenzi oholwa nguthisha kanye nemisebenzi yeziteshi zokusebenzela kuSithasiselo B: Ithemu 1 Iqoqa Lolwazi Lwesonto Ngalinye (Amasonto 1–2).

👥 Umsebenzi 7

Bheka Isithasiselo B: Ithemu 1 Iqoqa Lolwazi Lwesonto Ngalinye (Amasonto 1–2). Phendula imibuzo.

Imibuzo	Isonto 1	Isonto 2
Iyiphi Ingxenye Yolwazi Okugxilwe kuyo yesonto?	Inombolo, Izimpawu kanye Nobudlelwane Bazo	Inombolo, Izimpawu kanye Nobudlelwane Bazo
Yiluphi ulwazi (umqondo) olusemqoka oluzofundwa abafundi?	Ukubala ngomlomo Ukubala izinto	Izimpawu zezinombolo Amagama ezinombolo
Yiluphi ulwazi olusha olwethulwayo?	Ukubala ngomlomo 1–5 Ukubala izinto 1–3 Okukodwa okuqondene nokunye Ukulandelanisa izigameko	Inombolo 1 Ukuxazulula izinkinga ezimeni zansuku zonke
Imaphi amakhono asetshenziswayo eSontweni 2?		Ukubala ngomlomo 1–5 Ukubala izinto 1–3 Ulwazimagama kusuka eSontweni 1

Umhlahlandlela Wemisebenzi: Ithemu 1

The *Activity Guides* provide Grade R teachers with a structure and framework and offer weekly suggestions for maths teaching and learning.

Refer to Weeks 1 and 2 in *Activity Guide: Term 1* and the Weekly Content Summary in Appendix B. Complete Activity 13 in your group.

Activity 8

1. Look at *Activity Guide: Term 1* and add the information to the table.

Race around *Activity Guide: Term 1*	
What is on pages 6, 8 and 10?	
On which page is the 'Our classroom rules' poster?	
On which pages is the content overview for Term 1?	
What information is at the start of each new week?	
Find the *Grade R Maths family story*.	
Which song is introduced in Week 2?	
Find where number 1 is introduced.	
Find a whole class activity that focuses on oral counting.	
Find a teacher-guided activity that focuses on one-to-one correspondence.	
Find a workstation activity that focuses on consolidating the number concept '1'.	

2. Refer to the whole class activities, teacher-guided activity and workstation activities in Appendix B. Find these activities in *Activity Guide: Term 1*.

In Grade R assessment is informal and continuous. We need to observe learners throughout the day, inside and outside the classroom.

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

Umhlahlandlela Wemisebenzi uhlinzeka othisha beBanga R ngesakhiwo nohlaka ubuye unikeze iziphakamiso zamasonto onke zokufundisa nokufunda izibalo.

Bhekisa eSontweni 1 nelesi-2 ku*Mhlahlandlela Wemisebenzi: Ithemu 1* kanye Neqoqa Lolwazi Lwesonto Ngalinye eSithasiselweni B. Qedela Umsebenzi 13 eqenjini lakho.

Umsebenzi 8

1. Bheka *Umhlahlandlela Wemisebenzi: Ithemu 1* bese wengeza imininingwane ethebhuleni.

Umqhudelwano wokugijima *Umhlahlandlela Wemisebenzi: Ithemu 1*	
Yini esemakhasini 7, 9 no-11?	
Ikuliphi ikhasi iphosta ethi 'Imithetho yethu yasekilasini'?	
Imaphi amakhasi okukuwo ukubuka ngelibanzi ulwazi lweThemu 1?	
Yiluphi ulwazi olukhona ekuqaleni kwesonto elisha ngalinye?	
Thola *Indaba yomndeni ka-Grade R Maths*.	
Yiliphi iculo elethulwa eSontweni 2?	
Thola lapho inombolo 1 yethulwa khona.	
Thola umsebenzi wekilasi lonke ogxile ekubaleni ngomlomo.	
Thola umsebenzi oholwa nguthisha ogxile kokukodwa okuqondene nokunye.	
Thola umsebenzi wesiteshi sokusebenzela ogxile ekuhlanganiseni umqondo wenombolo '1'.	

2. Bhekisa emisebenzini yekilasi lonke, umsebenzi oholwa nguthisha kanye nemisebenzi yesiteshi sokusebenzela kuSithasiselo B. Thola le misebenzi ku*Mhlahlandlela Wemisebenzi: Ithemu 1*.

Ukuhlola eBangeni R akuhleliwe kanti kuyaqhubeka. Kumele sibheke abafundi usuku lonke, ngaphakathi nangaphandle kwekilasi.

Uhlelo LweZibalo lwenzelwe ukushintshana kwamaqembu amancane esontweni kanti uthisha unaka kakhulu iqembu elilodwa ngelanga, ebukela futhi elalela ngesikhathi abafundi beqeda imisebenzi ethile. Lesi sikhathi sinika uthisha ithuba lokuqaphela ngokucophelela umfundi ngamunye abuye aqoqe ulwazi ngenqubekelaphambili yakhe.

Look at the shaded block at the end of the teacher-guided activity in Week 2: '**Check that learners are able to**'. The eye icon reminds us that we need to observe the learners while they are busy, and we need to listen carefully while they are talking to us and to their peers.

The teacher makes a mental note of each learner and once the learners have left for the day, she writes down her observations in a dedicated observation book that has space for each learner's notes.

Poster Book and Resource Kit   (10 minutes)

Facilitator's notes

♦ Explain that the *Resource Kit* apparatus will be used during teacher-guided activities and that there is enough apparatus for a small group of six to eight learners. Remind participants of the contents of the *Resource Kit* and show them the following pieces of apparatus and discuss how each will be used:
    - counting materials: coloured discs and sticks, fruit and animal counters, Unifix blocks
    - dice
    - structure beads
    - number cards (number symbols and number words)
    - attribute blocks.
♦ Show participants the *Poster Book* and explain that there are activities in the *Activity Guides* that use the *Poster Book* to stimulate discussion and link maths to familiar contexts at school, home and in the community.

The *Resource Kit* has enough apparatus for a small group of six to eight learners. The apparatus that will be used in Term 1 Weeks 1 and 2 includes:

♦ counters: animal and fruit counters

♦ number cards: number symbol (1) and number word (one).

Facilitator's notes
♦   Give a *Resource Kit* and a *Poster Book* to each participant.

You will each receive a *Resource Kit* and a *Poster Book*.

Refer to pages 6–17 of *Activity Guide: Term 1* to read about classroom resources and setting up a maths learning environment.

Bheka ibhulokhi ehlikihlwe ngombala ekupheleni komsebenzi oholwa nguthisha eSontweni 2: '**Hlola ukuthi abafundi bayakwazi uku-**'. Isithonjana sehlo sisikhumbuza ukuthi kufanele sibheke abafundi ngenkathi bematasa, futhi sidinga ukulalelisisa lapho bekhuluma nathi kanye nabalingani babo.

Uthisha ubhala engqondweni ngomfundi ngamunye kuthi uma abafundi sebegodukile, abhale phansi akuqaphele encwadini yokuqaphela enendawo yamanothi omfundi ngamunye.

Incwadi Yamaphosta kanye Nekhithi Yezinsiza   (10 imizuzu)

Amanothi omdidiyeli

- ♦ Chaza ukuthi *Ikhithi Yezinsiza* izosetshenziswa ngesikhathi semisebenzi eholwa nguthisha nokuthi kunezinsiza ezanele zeqembu elincane labafundi abayisithupha kuya kwabayisishiyagalombili. Khumbuza ababambiqhaza ngokuqukethwe ku*Khithi Yezinsiza* futhi ubabonise lezi zinsiza ezilandelayo bese uxoxa ngokuthi ngayinye izosetshenziswa kanjani:
    - izinto zokubala: amadiski nezinti ezinemibala, izinto zokubala eziyizithelo neziyizilwane, kanye namabhulokhi axhumekayo
    - idayisi
    - ubuhlalu bokuhlela
    - amakhadi ezinombolo (izimpawu zezinombolo kanye namagama ezinombolo)
    - amabhulokhi angama-athribhuthi.
- ♦ Bonisa ababambiqhaza *Ibhuku Lamaphosta* futhi ubachazele ukuthi kunemisebenzi ku*Mhlahlandlela Wemisebenzi* esebenzisa *Ibhuku Lamaphosta* ukukhuthaza ingxoxo nokuxhuma izibalo nezimo ezejwayelekile esikoleni, ekhaya nasemphakathini.

Ikhithi Yezinsiza inezinsiza ezanele iqembu elincane labafundi abayisithupha kuya kwabayisishiyagalombili. Izinsiza ezizosetshenziswa kuThemu 1 Amasonto 1 kanye no-2 zihlanganisa:

- ♦ izinto zokubala: izinto zokubala zezilwane nezezithelo

- ♦ amakhadi ezinombolo: uphawu lwenombolo (1) kanye negama lenombolo (kunye).

Amanothi omdidiyeli

- ♦ Nikeza *Ikhithi Yezinsiza* kanye *Nebhuku Lamaphosta* umbambiqhaza ngamunye.

Umbambiqhaza ngamunye uzothola *Ikhithi Yezinsiza* kanye ne*Bhuku Lamaphosta*.

Bhekisa ekhasini 6–17 lo*Mhlahlandlela Wemisebenzi: Ithemu 1* ukufunda ngezinsiza zasekilasini nokumisa indawo yokufunda izibalo.

Closing activities (10 minutes)

Activity 9

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

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

Take back to school task

1. Read the *Concept Guide* pages that were referred to during this workshop.
2. Use *Activity Guide: Term 1* to plan and implement Weeks 1–2 of the Maths Programme.
3. Reflect on how the Maths Programme's guiding principles informed teaching and learning in your classroom.
4. Set up a maths area. Take a photograph of it and bring it to the next workshop.

Imisebenzi yokuvala (10 imizuzu)

Umsebenzi 9

Izifundo ezifundiwe: Cabanga ngalokho okufundile ngesikhathi somhlangano wokucobelelana ngolwazi bese uqedela ithebhula.

Izinto esengivele ngizenza ezisebenza kahle	Ulwazi olusha engingathanda ukuluzama

Umsebenzi obuyela nawo esikoleni

1. Funda *Umhlahlandlela Wokuqonda Isifundo* amakhasi okubhekiswe kuwo ngesikhathi salo mhlangano wokucobelelana ngolwazi.
2. Sebenzisa *Umhlahlandlela Wemisebenzi: Ithemu 1* ukuhlela nokusebenzisa ulwazi osunalo Amasonto 1–2 loHlelo LweZibalo.
3. Zindla ngokuthi izimiso eziqondisayo zoHlelo LweZibalo zikusize kanjani ukufundisa nokufunda ekilasini lakho.
4. Misa indawo yezibalo. Thatha isithombe sayo bese usilethela emhlanganweni wokucobelelana ngolwazi olandelayo.

Bring the following to the next workshop:

♦ *Poster Book*

♦ *Concept Guide*

♦ *Activity Guide: Term 1*.

Evaluation

Complete the Evaluation Form.

Letha okulandelayo emhlanganweni wokucobelelana ngolwazi olandelayo:

♦ *Ibhuku Lamaphosta*

♦ *Umhlahlandlela Wokuqonda Isifundo*

♦ *Umhlahlandlela Wemisebenzi: Ithemu 1.*

Ukuhlola

Gcwalisa Ifomu Lokuhlola.

## APPENDIX B: TERM 1 WEEKLY CONTENT SUMMARY (WEEKS 1–2)

Term 1: Activity Plan
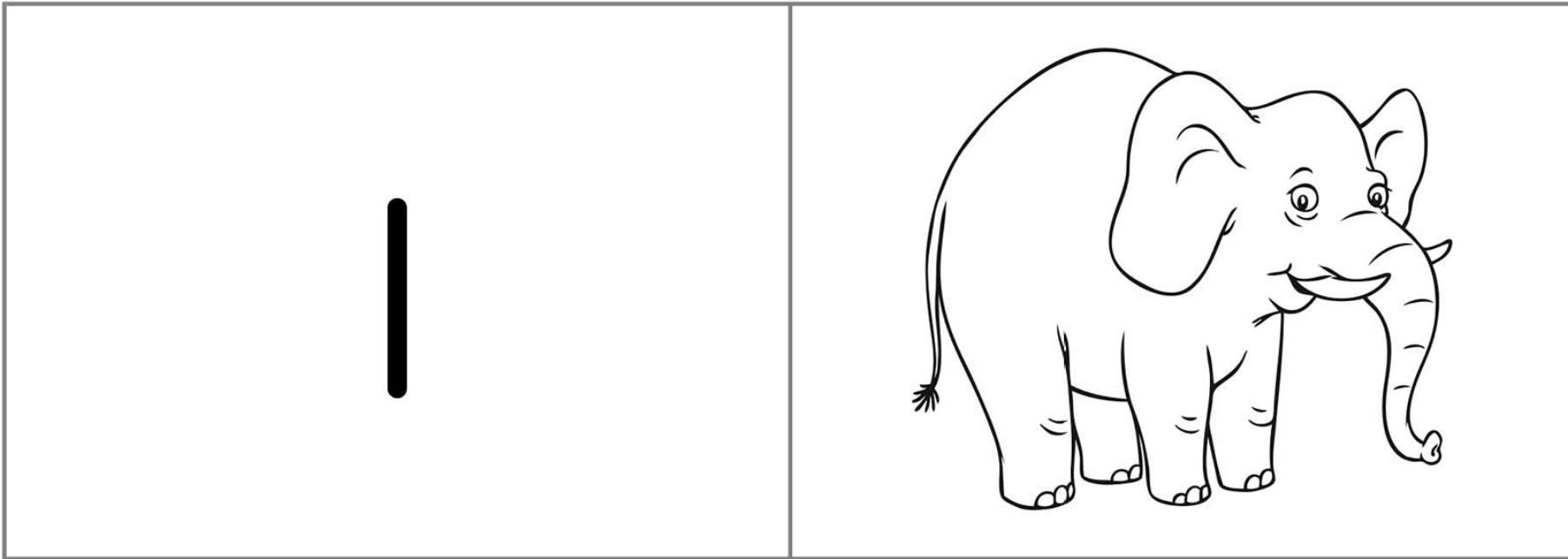
Week 1				
CONTENT AREA: NUMBERS, OPERATIONS AND RELATIONSHIPS				
TOPIC: Oral counting and counting objects				
INTRODUCE NEW KNOWLEDGE: Oral counting 1–5, counting objects 1–3, one-to-one correspondence, sequencing daily programme				
Whole class activities		**Teacher-guided activity**	**Workstation activities**	
Day 1	Routine, class rules, learner symbols and daily programme.	No teacher-guided small group activity in the first week to allow the teacher to rotate between all five workstations: guiding, assisting and encouraging the learners. Some learners may not have seen or used the equipment before so the teacher will need to demonstrate and support their first attempts.	**Activity 1**	Sorting animal and fruit counters by colour (from the *Resource Kit*).
Day 2	Helper's chart, rhyme, *Grade R Maths family story*.		**Activity 2**	Playdough or clay modelling.
Day 3	Helper's chart, Tidy-up chart, rhyme, oral counting and the *Grade R Maths family story*.		**Activity 3**	Draw a picture.
			Activity 4	Six-piece puzzle.
Day 4	Rhyme, oral counting, counting objects, sequencing daily events, bowls.		**Activity 5**	Building blocks.
Day 5	Rhyme, oral counting, learners' symbols.			
Week 2				
CONTENT AREA: NUMBERS, OPERATIONS AND RELATIONSHIPS				
TOPIC: Number symbols and number words				
INTRODUCE NEW KNOWLEDGE: Introduce number 1, solving problems in everyday contexts (rhymes and posters)				
PRACTISE: Oral counting 1–5, counting objects 1–3, vocabulary from previous week				
Whole class activities		**Teacher-guided activity**	**Workstation activities**	
Day 1	Song, oral counting, introduce number 1 and the number 1 frieze, body parts ('how many?' games), find one object.	Support learners in their efforts to complete tasks. Ask guiding questions and encourage learners to share their ideas. Count objects: one-to-one correspondence. Sort animal counters according to colour. Match number 1 symbol and word cards with dot card and animal counters.	**Activity 1**	Matching counters to dots using egg boxes.
			Activity 2	Make one playdough object and draw it.
Day 2	Song, oral counting, frieze for number 1, body games.		**Activity 3**	'One' template using playdough.
Day 3	Song, oral counting, counting objects, reinforce number 1, look for 1 object.		**Activity 4**	Building blocks.
Day 4	Rhyme, oral counting, problem solving – poster story.			
Day 5	Rhyme, oral counting, counting objects in the poster, solving problems.			

## ISITHASISELO B: ITHEMU 1 IQOQA LOLWAZI LWESONTO NGALINYE (AMASONTO 1–2)
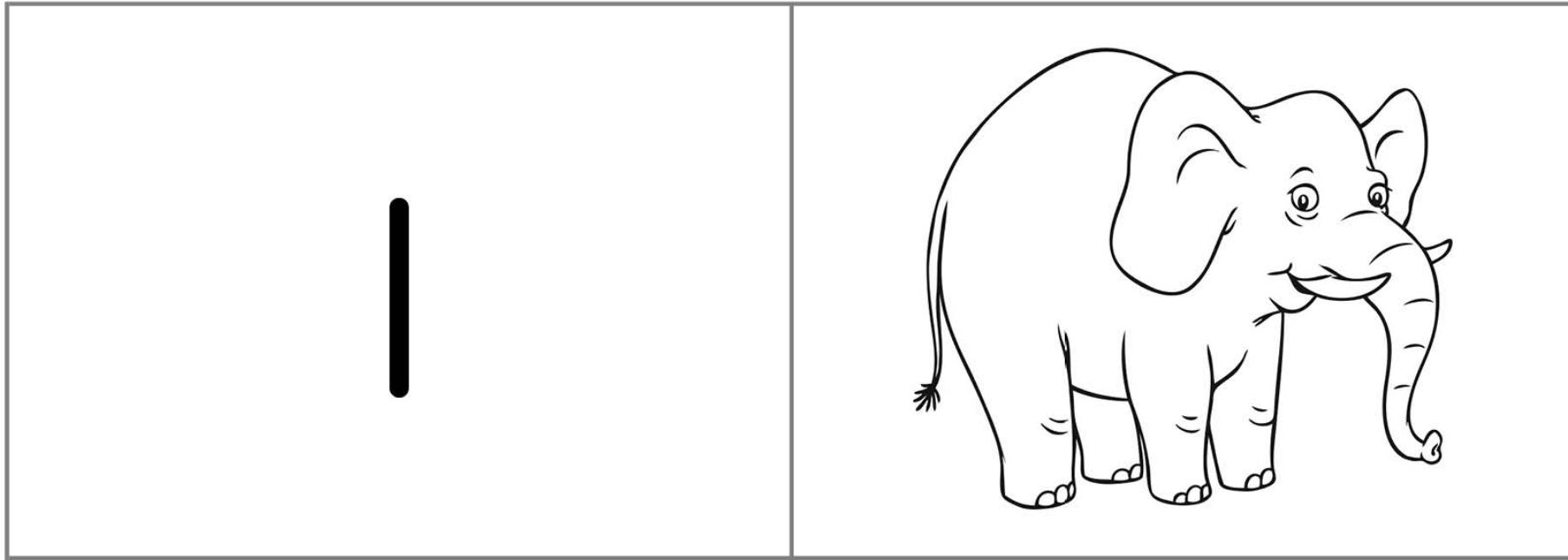
Ithemu 1: Uhlelo Lomsebenzi

Isonto 1			
INGXENYE YOLWAZI: IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANE BAZO			
ISIHLOKO: Ukubala ngomlomo nokubala izinto			
YETHULA ULWAZI OLUSHA: Ukubala ngomlomo 1–5, ukubala izinto 1–3, okukodwa okuqondene nokunye, ukuhlela ngokulndelana uhlelo lwansuku zonke			
Imisebenzi yekilasi lonke		**Umsebenzi oholwa nguthisha**	**Imisebenzi yesiteshi sokusebenzela**
Usuku 1	Inqubo, imithetho yekilasi, izimpawu zabafundi kanye nohlelo lwansuku zonke.	Awukho umsebenzi wamaqembu amancane oholwa nguthisha esontweni lokuqala ozovumela uthisha ukuthi azungeze phakathi kwazo zonke zonhlanu iziteshi zokusebenzela: ukuhola, ukusiza nokukhuthaza abafundi. Kungenzeka ukuthi abanye abafundi abakaze bazibone noma bazisebenzise izinto zokusebenza phambilini, ngakho uthisha uzodinga ukuthi akhombise futhi asekele imizamo yabo yokuqala.	**Umsebenzi 1**	Ukuhlunga izinto zokubala zezilwane nezezithelo ngombala (ezivela e*Khithini Yezinsiza*).
Usuku 2	Ishadi lomsizi, umlolozelo, *Indaba yomndeni yeZibalo zeBanga R*.		**Umsebenzi 2**	Ukukhombisa inhlama yokudlala noma ubumba.
			Umsebenzi 3	Dweba isithombe.
Usuku 3	Ishadi lomsizi, Ishadi lokucoca, umlolozelo, ukubala ngomlomo kanye ne*Ndaba yomndeni yeZibalo zeBanga R*.		**Umsebenzi 4**	Iphazili enezingcezu eziyisithupha.
			Umsebenzi 5	Amabhulokhi okwakha.
Usuku 4	Umlolozelo, ukubala ngomlomo, ukubala izinto, ukuhlela izinhlelo zansuku zonke, izitsha.			
Usuku 5	Umlolozelo, ukubala ngomlomo, izimpawu zabafundi.			
Isonto 2			
INGXENYE YOLWAZI: IZINOMBOLO, IZIMPAWU KANYE NOBUDLELWANE BAZO			
ISIHLOKO: Izimpawu zezinombolo namagama ezinombolo			
YETHULA ULWAZI OLUSHA: Yethula inombolo 1, nixazulula izinkinga ezimweni zansuku zonke (imilolozelo namaphosta)			
ZEJWAYEZE: Ukubala ngomlomo 1–5, ukubala izinto 1–3, ulwazimagama lwesonto eledlule			
Imisebenzi yekilasi lonke		**Umsebenzi oholwa nguthisha**	**Imisebenzi yesiteshi sokusebenzela**
Usuku 1	Iculo, ukubala ngomlomo, yethula inombolo 1 kanye nefrizi yenombolo 1, izitho zomzimba (imidlalo yokuthi 'kungaki?'), thola into eyodwa.	Sekela abafundi emizamweni yabo yokuqeda imisebenzi. Buza imibuzo eholayo futhi ekhuthaza abafundi ukuthi babelane ngemibono yabo.	**Umsebenzi 1**	Ukuqhathanisa izinto zokubala namachashazi usebenzisa amabhokisi amaqanda.
Usuku 2	Iculo, ukubala ngomlomo, ifrizi yenombolo 1, imidlalo yomzimba.		**Umsebenzi 2**	Yenza into eyodwa yenhlama yokudlala bese uyidweba.
Usuku 3	Iculo, ukubala ngomlomo, ukubala izinto, gxilisa inombolo 1, bheka into e-1.	Bala izinto: okukodwa okuqondene nokunye. Hlunga izinto zokubala zezilwane ngokombala. Qondanisa uphawu lwenombolo 1 namakhadi amagama nekhadi lamachashazi kanye nezinto zokubala zezilwane.	**Umsebenzi 3**	Ithempulethi ka-'kunye' usebenzisa inhlama yokudlala.
Usuku 4	Umlolozelo, ukubala ngomlomo, ukuxazulula izinkinga - indaba yephosta.		**Umsebenzi 4**	Amabhulokhi okwakha.
Usuku 5	Umlolozelo, ukubala ngomlomo, ukubala izinto ezikuphosta, ukuxazulula izinkinga.			

APPENDIX C: NUMBER 1 FRIEZE CARDS

ISITHASISELO C: AMAKHADI EFRIZI YENOMBOLO 1

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Workshop 1 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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Ifomu Lokuhlola Lomhlangano Wokucobelelana Ngolwazi 1

1. Ngabe umhlangano wokucobelelana ngolwazi uhlangabezene nalokho obukulindele?

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2. Yini oyifundile kulo mhlangano wokucobelelana ngolwazi ekusize kakhulu?

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3. Ngabe kukhona ongakuthandanga noma okuthola kunzima ukukuqonda?

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4. Uzokusebenzisa kanjani lokho okufundile ekilasini lakho leBanga R?

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5. Ngabe unazo iziphakamiso zokuthuthukisa eminye imihlangano yokucobelelana ngolwazi?

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