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EDUCATION
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GROWING GAUTENG TOGETHER

IsiNdebele/English

Ihlelo lokuThuthukisa iimBalo zeGreyidi R Grade R Mathematics Improvement Programme



**Isifundobandulo 1 • Workshop 1
Umhlahandlela womKghonakalisi • Facilitator's Guide**

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

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

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

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Ukuthokoza okukhethekileko:

- Iinkhulu zePhiko labaNgophisi leKharikhyulamu, iPhiko labaNgophisi laboTitjhere bezeFundo nePhiko labaNgophisi leFundo eKhethekileko yomNyango wezeFundo weGauteng, ekutjhugululweni kwemethiriyali yethu.
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- Isiqhema sokutlola se-R-Maths: Abasebenzi nabathintanisi be-SDU.



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

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Overview

Purpose

This is the 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)

Isirhunyezo

Umnqopho

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

Abahlanganyeli bazakuthola ilwazi mayelana neengcenyane nemithethokambiso ehlahla ukufundisa iimbalo kwaGreyidi R. Bazakucabanga begodu bakhulumisane ngalokhu ngokobujamo bokuhlela nokufundisa kwabo. Abahlanganyeli godu bazakubuyekeza iinGaba zokuMumethweko zeemBalo zeGreyidi R zeSitatimende somGomo weKharikhyulamu nokuHlola (i-CAPS). Bazakuhlela isikhathi sokunqophana nehlelo leemBalo langamalanga leemveke ezimbili zokuthoma zeThemu 1. Ngasosoke isikhathi sesifundobandulo bazakuqala imithethokambiso ehlahlako leyo ekhambisana nokufundisa nokufunda.

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

Imiphumela yokufunda

- ◆ Ukujayela iHlelo leemBalo nokobana likusekela belikunabise njani okumumethweko kwe-CAPS yeemBalo zakwaGreyidi R
- ◆ Ukuhlola iingcenyane zeHlelo leemBalo
- ◆ Ukuzwisisa imithethokambiso yokufundisa ethulwe eHlelweni leemBalo
- ◆ Ukuhlela iveke yeThemu 1 ngokuya ngendlela yokufundisa ngeenqhema ezihlanu
- ◆ Ukubandaka okumumethweko kweHlelo leemBalo leThemu 1 iimVeke 1-2 (Iinomboro, ama-Opharetjhini noBudlelwana)

Okumumethweko kwesifundobandulo

- ◆ Isetjhini 1: Ukujayeza iHlelo leemBalo (Ama-iri 2)
ITIYE
- ◆ Isetjhini 2: Iinomboro, ama-Opharetjhini noBudlelwana (Ama-iri 2)
ISIDLO SEMINI
- ◆ Isetjhini 3: Ukusebenzisa indlela yokufundisa ngeenqhema ezihlanu (Ama-iri 2)

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 Guide* and *Activity Guide: Term 1*
- ◆ *Resource Kits*
- ◆ Puzzle pieces
- ◆ Number frieze house template and frieze cards

Imithetjhwana yendlu

- ◆ Gcina isikhathi.
- ◆ Cima ufunjathwako wakho ngesikhathi samasetjhini.
- ◆ Nikela woke umuntu ithuba lokuhlanganyela.
- ◆ Omunye nomunye akalalele imibono yabanye.

Amalungiselelo

- ◆ PPT izethulo

- ◆ Funda:

UmHlahlandlela womQondo, amakhasi 114–117

UmHlahlandlela wemiSebenzi: Ithemu 1, amakhasi 18–21

Isithasiselo B: Ithemu 1 Isirhunyazo sokuMumethweko kwaQobe yiVeke

- ◆ Beka *iKhidi yeenSetjenziswa* yeHlelo leemBalo, amakhokhi namaphepha etafuleni yesiqhema ngasinye.
- ◆ Lungisa indatjana yomhlobiso weenomboro bese ubuthelela imatheriyali.
- ◆ Yenza umfuziselo wendlu phezu kwetjhidi elikhulu lephepha itjhadi eliphendlekako – dweba ibumbeko lendlu ehlukaniswe iingcinye ezine.
- ◆ Faka umbala emakaradeni womhlobiso weNomboro 1 kusiThasiselo C. Anamathisele phezu kwekhadibhodi.

Imatheriyali

- ◆ Irejista yokuba khona
- ◆ Iphepha letjhadi eliphendlekako, amakhokhi
- ◆ Amakhophi *weNcwadi yokuSebenzela yomHlanganyeli*, *umHlahlandlela womQondo nomHlahlandlela wemiSebenzi: Ithemu 1*
- ◆ *IKhidi yeenSetjenziswa*
- ◆ Iinquntu zephazili
- ◆ Umfuziselo womhlobiso wendlu namakarada womhlobiso weenomboro

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 1

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.

Amanothi womkghonakalisi

- ◆ Abahlanganyeli kufanele bahlaliswe ngeenqhema ezincani zabantu abasithandathu ukuya kababunane. Akulandelwe imigomo ye-COVID-19.
- ◆ Nikela umuntu ngamunye *iNcwadi yokuSebenzela yomHlanganyeli* nerejista yokubakhona.
- ◆ Yamukela abahlanganyeli bese uyazazisa nawe.
- ◆ Khulumisanani ngemithetjhwana yendlu yokusebenzisana ngasosoke isikhathi seemfundobandulo (qala ikhasi 8).
- ◆ Nikela abahlanganyeli ithuba lokuzazisa ngokwabo eenqhemeni zabo ezincani nesiqhemeni soke.
- ◆ Bakhuthaze kobana babelane ngelemuko labo lokubandulwa nokufundisa.
- ◆ Mema abahlanganyeli babelane ngalokho abakulindeleko kusifundobandulo.

Ukutlolisa

Ukwamukelwa nemithetjhwana yendlu

(imizuzu 10)

Namukelekile kusifundobandulo sokuthoma seemBalo kezilitjhumi nambili zoMnyango wezeFundo weGauteng (GDE) zePhrojekthi yeemBalo nokuThuthukiswa kweLimi kwaGreyidi R.

Asithomeni ngokuzazisa kubethuli bese sivumelana ngesede yemithetjhwana yendlu.

Ukwabelana ngelemuko lokufundisa

(imizuzu 15)



Umsebenzi 1

1. Thatha isikhatjhana sokucabangisisa ngelemuko lakho lokufundisa uGreyidi R, khulukhulu ukufundisa iimbalo kwaGreyidi R. Cabanga ngebandulo lakho nokobana likulungiselele njani ukufundisa iimbalo. Godu zama ukuveza amandla nobuthakathaka bakho eembalweni.

2. Yabelana nomlingani wakho ngelemuko lakho elihle nelimbi.
3. Khetha umuntu munye esiqhemeni sakho bonyana atlole imicabango leyo omunye nomunye abelene ngayo.

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:

Kubayini ihlelo leemBalo zeGreyidi R?

Amanothi womkghonakalisi

- ◆ PPT: Isirhunyezo selwazi elingenzasi.
- ◆ Khulumisanani ngokuqakatheka kokuthuthukisa ukufunda nokufundisa iimbalo esiGabeni esisiSekelo. Yethula ihlelo lakwa-GDE lokuThuthukisa iimbalo zeGreyidi R njengenelelo lokwenza ngcono ukusetjenziswa kwe-CAPS yekharikhyulamu yakwa-Greyidi R.

Abafundi abanengi beenkolo zamabanga aphasu eSewula Afrika abasebenzi kuhle eemfundweni zeLimi neemBalo. Iphesentheji ephezulu yabafundi iyabhalelwa ukuthola ngitjho ubuncani bezinga elilindelweko kilezi iimfundo ezimumongo. Kuneragelophambili elibuthaka ekuthuthukiseni imiphumela yezefundo nekunciphiseni isikhala sokuphumelela phakathi kwabafundi abaphuma ebujameni obuhlukileko. Iinzathu zalokhu zihlangahlangene, zingale kwetlasi begodu zithintelwa kukhula nehlahukhle yabantwana ukusuka ekubelethweni.

Okhanye kwezinto eziqakathekileko okuphathelene nokungena nokuya ekulisa, kunye nomthangalasisekelo nokuphathwa kwesikolo eSewula Afrika, mibuzo eqakathekileko emayelana nokobana abantwana bafunda ini begodu bafunda njani. Ukuze boke abantwana bathole ithuba elingcono lokuphumelelisa ikghono labo leemBalo, umnqopho kufanele unabiswe ukufaka hlangana ukuthuthukiswa kweembalo kwaGreyidi R begodu, okuqakatheke khulu, kunikela abotitjhere bakwaGreyidi R nabasebenzi ilwazi namakghono adingekako wokusekela abantwana abancani ukufunda iimbalo.

I-GDE ibone ukuThuthukiswa kweFundo yabantwana abasaThomako njengeQhinga lomNqopho 1 nokobana enye yeenhloso zayo eziqakathekileko kuthuthukisa iLimi leKhaya nokufundwa kweemBalo kwaGreyidi R. Ngehlelo lokuThuthukisa iimbalo neLimi kwaGreyidi R, i-GDE ilinga ngamandla ukusebenza ngcono kwaGreyidi R nokulungiselela abafundi ukuya kwaGreyidi 1.

Siyakholwa bonyana ihlelo leemBalo lizakwenza ubungcono obukhulu ekusetjenzisweni kwe-CAPS nokobana lizakuthuthukisa amathuba akhona wokufunda wabafundi boke bakwaGreyidi R bazokwazi ukukhula ngokupheleleko.

Liyini ihlelo leemBalo zeGreyidi R?

Amanothi womkghonakalisi

- ◆ PPT: Ikhasi 11 lomHlahlandlela womQondo, isirhunyezo selwazi elingenzasi.

Ihlelo leemBalo linqophe ukufundisa nakufunda umqondo nofana isihloko seembalo esisodwa ngesikhathi sinye. Umnqopho omkhulu weveke ngayinye uqalana nesiGaba sokuMumethweko sinye se-CAPS. Ilwazi elitjha lithulwa nge:

- ◆ 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 yetlasi yoke
- ◆ imisebenzi yesiqhema esincani: imisebenzi ehlahlwa ngutitjhere nemisebenzi ezijameleko (yangeqadi)
- ◆ imisebenzi yokuzikhethela ngokutjhaphulukileko.

IHlelo leemBalo:

- ◆ lisekela, linabise beligandelele okumumethweko kweemBalo zeGreyidi R ze-CAPS. Alijamiseleli i-CAPS begodu lithatha ukuthi abotitjhere banelwazi langaphambili nokuzwisisa i-CAPS yeemBalo zakwaGreyidi R.
- ◆ likhuphula isikhathi sokunqophana kobana abafundi bazijayeze amakghono amatjha abawatholileko nelwazi, begodu lifaka amathuba wokuzijayeza emisebenzini yeembalo eplaniweko kunye nelemukweni.
- ◆ linikela abotitjhere umhlahandlela opheleleko osekela ukufundisa nokufunda.
- ◆ lihlahlwa mithethokambiso ebunane esiza ekufundiseni nekufundeni okuyipumelelo.
- ◆ lisekela abotitjhere ekuhlanganiseni imiqondo yeemBalo zeGreyidi R nekghono leembalo eliza muva.
- ◆ ligandelela ukutjhejwa kwabafundi qobe yiveke njengethulusi lokubuthelela ilwazi elimayelana nomntwana ngamunye okuzakusiza ukuhlela nokuhlola.

Qala ikhasi 13 lom*Hlahandlela womQondo* ukufunda okunengi mayelana neHlelo lokuThuthukisa iimBalo zeGreyidi R.

Funda ngokunabileko okumayelana nemithethokambiso ehlahlako yeHlelo leemBalo emakhasini 14–73 wom*Hlahandlela womQondo*.

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.
- ◆ Discuss Mathematics focus time in relation to Home Language focus time, which has already been introduced.

Isikhathi esabelwe iimBalo kwaGreyidi R

(imizuzu 10)

Amanothi womkghonakalisi

- ◆ PPT: Ukwabiwa kwesikhathi kwaGreyidi R (*umHlahlandlela womQondo*, ikhasi 76/77, Ithebula 1).
- ◆ Thumela abahlanganyeli *kumHlahlandlela womQondo*, amakhasi 74–77.

I-CAPS iphakamisa bonyana isikhathi sokufundisa imBalo kwaGreyidi R kufanele sibe ma-iri ama-23 ngeveke. Nofana kunjalo, i-CAPS ayinikeli isilinganiso nofana ukhulukaniswa kwesikhathi esizakusetjenziswa esiGabeni sokuMumethweko ngasinye ithemu ngayinye.

IimBalo kwaGreyidi R ehlelweni langamalanga

(imizuzu 20)

Ihlelo langamalanga lakwaGreyidi R alisiyo ithebula yesikhathi njengakomagreyidi aphakemeko.

KwaGreyidi R ilanga lihlelwa magega needingo zokuthuthuka kwabafundi. Ilanga lithoma ngesikhathi sokucoca nokuvuma bese liphela ngokuphumula neendatjana. Phakathi kwelanga, abotitjhere bahlela imisebenzi yeLimi leKhaya, amaKghono wePilo, ilwazi nokuzwisisa iimBalo. Ngesikhathi sokudlala nokukhulumisana phakathi kukatitjhere nabanye abafundi kunamathuba amanengi wokuhlanganisa amakghono amatjha nesikhathi sokuzijayeza lokho okufundiweko.

Ihlelo leemBalo liphakamisa indlela yokuhlela ihlelo langamalanga elinesikhathi sokunqophama neLimi leKhaya, amaKghono wePilo neemBalo.

Amanothi womkghonakalisi

- ◆ PPT: IHlelo langamalanga lakwaGreyidi R (*umHlahlandlela womQondo*, ikhasi 80/81, Umdwebo 31).
- ◆ Layela abahlanganyeli *kumHlahlandlela womQondo*, amakhasi 78–81.
- ◆ Khulumisanani ngesikhathi sokunqophana neemBalo ngokuhlobana nesikhathi sokunqophana neLimi leKhaya, esele lithuliwe.

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 sangamalanga sokunqophana neemBalo

Amanothi womkghonakalisi

- ◆ PPT: Isikhathi sangamalanga sokunqophana neemBalo (*umHlahlandlela womQondo*, ikhasi 82/83, Umdwebo 33, nofana idayagramu engenzasi). Rhunyeza ilwazi elisemakhasini 84–93 *womHlahlandlela womQondo*.

Imihlahlandlela yokuhlela itlasi nokulawula isikhathi sokunqophana neemBalo

1. Amasetjhini weembalo wetlasi yoke

- ◆ Imizuzu eli-15–25
- ◆ Boke abafundi bahlala benze indulungu kunye notitjhere.
- ◆ Imisebenzi:
 - Hlanganisa bese ujayeza abafundi imiqondo efundiswe ngaphambili.
 - Yethula umqondo omutjha.
 - Nabisa umqondo omnqopho omkhulu weveke:
 - ukubala ngomlomo/ngehloko (imilolozelo, iingoma, ukulandelanisa iinomboro)
 - ukubala izinto
 - ukuveza imiraro, imidlalo yomkhumbulo.
 - Nikela imilayelo yemisebenzi yesiqhema esincani eentetjhini zokusebenzela.

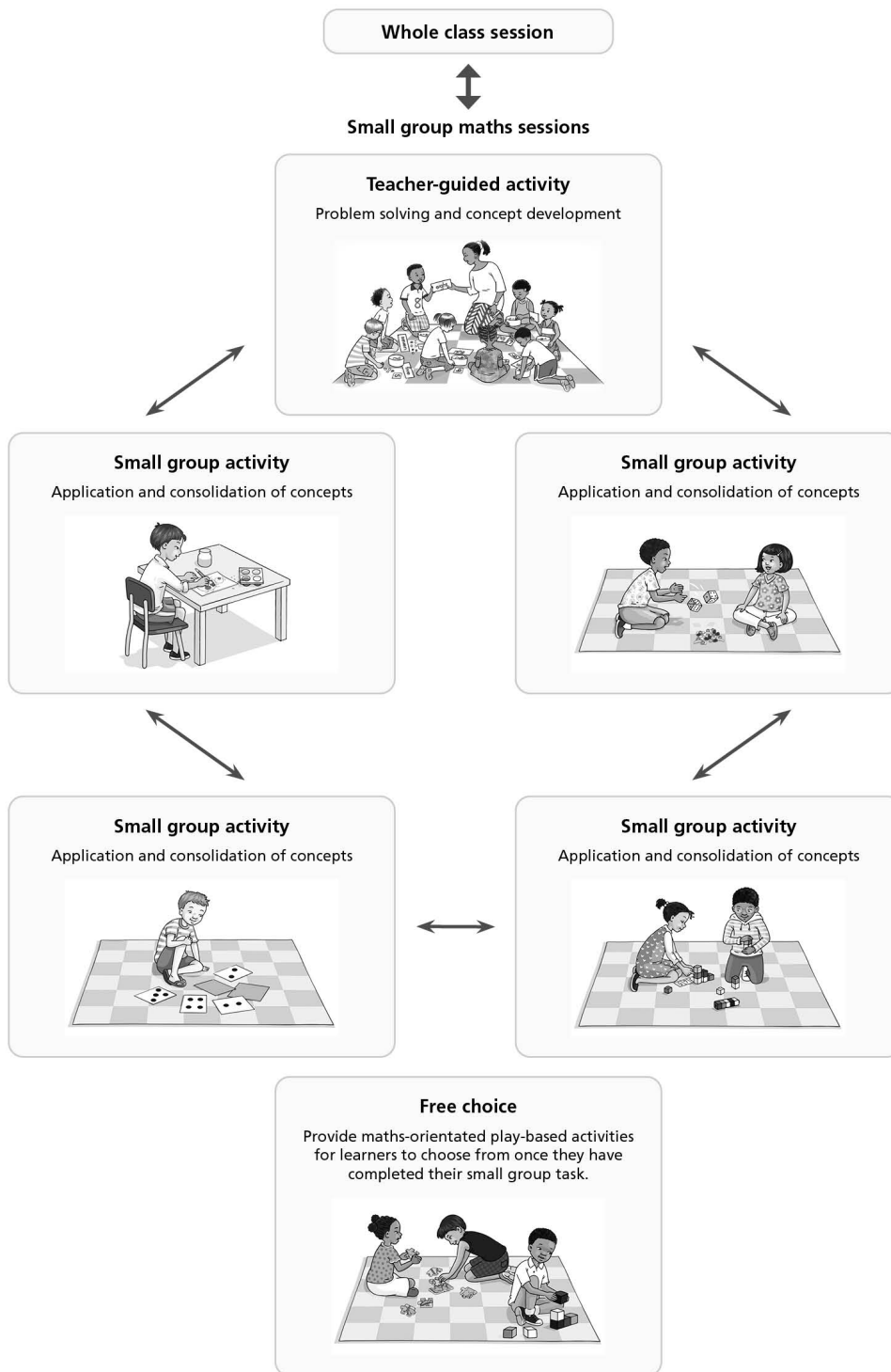
2. Amasetjhini weembalo wesiqhema esincani

- ◆ Itlasi ihlukaniswa ngeenqhema ezihlanu zabafundi abasithandathu ukuya kababunane ngasinye.
- ◆ Isiqhema sinye sisebenza notitjhere ilanga ngalinye (umsebenzi ohlahlwa ngutitjhere) bese iinqhema ezine zisebenza ngokuzijamela zenza imisebenzi yeembalo ehleliweko eentetjhini zokusebenzela.
- ◆ Iinqhema ziyadlhegana ngamalanga.
- ◆ Imisebenzi:
 - Hlanganisa begodu unikela abafundi ithuba lokuzijayeza imiqondo efundiswe ngaphambili.
 - Phenya ngomqondo omutjha omnqopho omkhulu weveke.
 - Nikela amathuba wokuzijayeza umqondo omkhulu weveke.
- ◆ **Umsebenzi ohlahlwa ngutitjhere** unqophe ukusebenza nesiqhema esisodwa sabafundi uku:
 - hlanganisa nokuzijayeza imiqondo efundiswe ngaphambili
 - gandlela ukuzwisisa umqondo omutjha
 - tjeja iragelophambili labafundi.

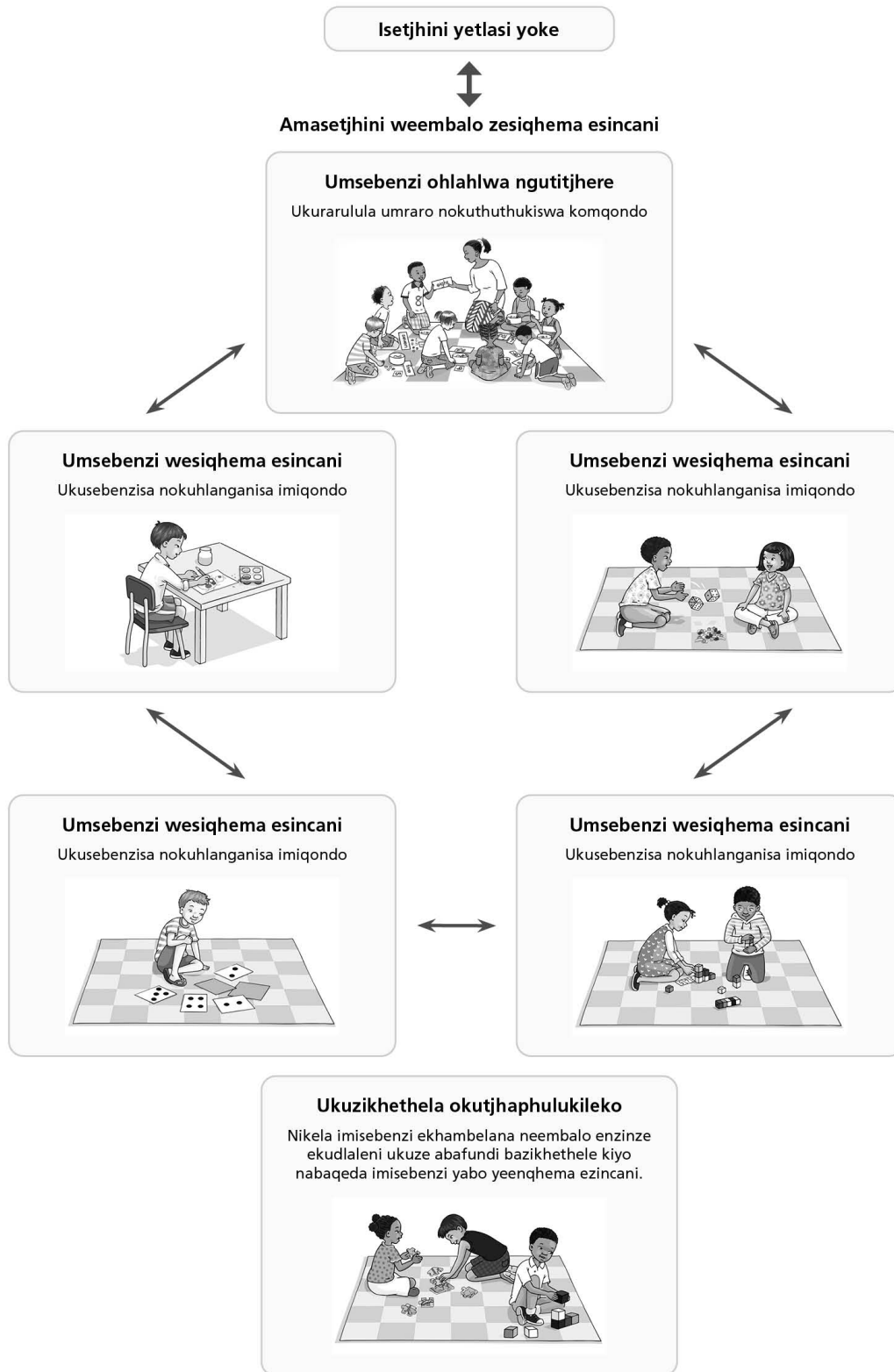
3. Imisebenzi yokuzikhethela ngokutjhaphulukileko

- ◆ Imisebenzi yokungezelela yokuzikhethela ngokutjhaphulukileko enqophene neembalo inikelwa abafundi abaqede umsebenzi wabo wesiqhema esincani.

Ibandulo leLimi likwethule emzombeni wokufundisa nokufunda weemveke ezimbili. IHlelo leemBalo nalo lilandela indlela ehlelekileko yokuhlelela itlasi isikhathi sokunqophana neemBalo. Umzombe weHlelo leemBalo lokufundisa nokufunda lisekelwe misebenzi yeenqhema ezincani ezihlanu ekudlheganwe ngayo evekeni eyodwa. Iimfundo zithoma ngoMvulo bese ziphela ngeLesihlanu.



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



Qala amakhasi 82–93 *womHlahlandlela womQondo* ukufunda ngokunabileko mayelana nokuhlela itlasi yakho yesetjhini yokuqalana neemBalo ngamalanga.

Session 2: Numbers, Operations and Relationships

2 hours

Term 1–4 content overview (CAPS)

(45 minutes)

Facilitator's notes

- ◆ PPT: *Concept Guide*, page 110/111, Figure 41 and summary on pages 110–113
- ◆ Refer participants to the *Concept Guide*, pages 114–137. Explain that this content overview provides the framework for all maths planning and will be used and referenced throughout the training.
- ◆ PPT: Discuss the table. Explain that the text in blue is from CAPS and the black text is content that has been added to build and extend CAPS in the Maths Programme.

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.

Facilitator's notes

- ◆ Have participants complete **Activity 7** in their groups. Ask a person from each group to share their ideas.



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?

Isetjhini 2: Iinomboro, ama-Opharetjhini noBudlelwana

Ama-iri 2

Ithemu 1–4 isirhunyezo sokumumethweko (CAPS)

(imizuzu 45)

Amanothi womkghonakalisi

- ◆ PPT: *UmHlahlandlela womQondo*, ikhasi, 110/111, Umdwebo 41 nesirhunyezo emakhasini 110–113
- ◆ Layela abahlanganyeli kum*Hlahlandlela womQondo*, amakhasi 114–137. Hlathulula bonyana isirhunyezo sokumumethweko sinikela iphahla loke lokuplanela iimbalo begodu lizakusetjenziswa bese liriferenswe ebandulweni loke.
- ◆ PPT: Khulumisanani ngethebula. Hlathulula bonyana umtlo olijuba/ohlaza samkayi ubuya ku-CAPS begodu umtlo onzima ngokumumethweko okufakelwe ukwakha nokunabisa i-CAPS eHlelweni leemBalo.

Ihlelo leemBalo lilunganiswe ne bogodu linabisa okumumethwe ziinGaba zokuMumethweko zeemBalo ezihlanu ze-CAPS. Ithebula esemakhasini 114–137 *womHlahlandlela womQondo* inikela isirhunyezo sokumumethweko kweembalo ezizokufundiswa kwaGreyidi R. Godu ikhombisa kobana ngikuphi okumumethweko okuzakufundiswa ithemu ngayinye.

- ◆ Umtlo otlolwe ngokulijuba/okuhlaza samkayi ngokumumethweko kwe-CAPS kweemBalo ze-Greyidi R. Umtlo onzima ufakelwe ukunabisa nokwakhela phezu kwe-CAPS.
- ◆ Iinhloko zilandelanisiwe ukukhombisa iragelophambili elithuthukako ukusuka esihlokweni esisodwa ukuya kesilandelako.

Qala amakhasi 110–113 *womHlahlandlela womQondo* bese ufunda 1.1, 1.2 no 1.3 emakhasini 114–117. Ngemva kokufunda iinomboro 1.1, 1.2 no 1.3, qedelela imisebenzi 7 no-8.

Amanothi womkghonakalisi

- ◆ Abahlanganyeli abaqedelele **Umsebenzi 7** eenqhemeni zabo. Bawa umuntu esiqhemeni ngasinye bonyana abelane ngemibono yabo.



Umsebenzi 2

Qala isirhunyezo sokumumethweko kwamaThemu 1–4 iinGaba zokuMumethweko: Iinomboro, ama-Opharetjhini noBudlelwana, kum*Hlahlandlela womQondo* nemtlo lweni we-CAPS. Esiqhemeni senu, khulumisanani:

1. Ihlelo leemBalo lingezelela ini kokumumethweko kwe-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.

Qala umtlolo onzima emakhasini 114–117 *womHlahlandlela womQondo*. Okumumethweko okuqakathekileko okungezelelweko: amakarada wamaqatjhazi, iinjamiseleli ezinengi, imincamo ehlelekileko, umzila wokweqa, idrada yokweneka yeenomboro, ukukhambelanisa netshwayo/negama lenomboro, ukuhlukanisa nokwakha amabuthelelo, ukurhemisa amatshwayo weenomboro, iinomborosikhundla emisebenzini yangamalanga, ukurarulula imiraro ngomlomo, ukwabelana ngokulinganako.

2. Ngimiphi imiqondo yokubala esele yenziwe yeenNomboro, ama-Opharetjhini noBudlelwana kuThemu 1?

Qala umtlolo onzima emakhasini 114–115 *womHlahlandlela womQondo*: kunye kokunye okukhambelanako, ukulinganisa, ukukhambelanisa, iinjamiseleli ezinengi, ukubala ukuya phambili 1–10, ukubala ukuya emuva 5–1.

Amanothi womkghonakalisi

- ◆ Hlathulula bonyana ngesikhathi seemfundobandulo umnqopho usekusetjenzisweni kweHlelo leemBalo nokobana abahlanganyeli kufanele bezwisise imiqondo yeembalo ngokwabo kobana bazokwazi ukusekela abafundi babo. Isifundobandulo lesi sinikela ukuzwisisa imiqondo eqakathekileko yeeNomboro, ama-Opharetjhini noBudlelwana.

Imiqondo eqakathekileko yeeNomboro, ama-Opharetjhini noBudlelwana

(ama-iri 1¼)

Ukubala

Ukubala ngomlomo (ukubala ngegido, ngehloko nofana ngomlomo)

Amanothi womkghonakalisi

- ◆ Bawa abahlanganyeli bazihlukanise ngokwabo ngeenqhema ezincani zabantu abahlanu bese bathola indawo evulekileko ngelawini lokubandulela. Layela abahlanganyeli bavule **Umsebenzi 8** bese batjho umlozelo, *Kunye, kubili, kuthathu, kune, kuhlanu (UmHlahlandlela wemiSebenzi: Ithemu 1, ikhasi 197)* kube nezenzo.
- ◆ Eenqhemeni zabo ezincani, abahlanganyeli bacabanga ngomsebenzi nangamakghono wokubala abawasebenzisileko bese baqedelela **Umsebenzi 8** no-9.
- ◆ Bawa iinqhema zethule umbiko obuyako ngemikhulumiswano yazo. Rhelisa ikghono ngalinye lokubala elitjha etjhadini eliphendlekako.
- ◆ Qinisekisa bonyana abahlanganyeli bayezwisisa bonyana ukubala ngomlomo kufaka ukubamba ngehloko amagama weenomboro begodu akutjho bonyana abantwana bayakwazi ukubala.
- ◆ Funda ilwazi mayelana nokubala ngomlomo ngenzasi.
- ◆ Khulumisanani ngamathemu alandelako: ukubala ngomlomo, ngegido, nangehloko.
- ◆ PPT: njengalokhu: incwadi, isitulo,inja, indlu.
- ◆ Hlathulula bonyana efundini ukubala ngokulandelanisa amagama weenomboro akukhambelani nomqondo wenomboro ekuthomeni, isib. njenge: incwadi, isitulo,inja, indlu, ... Abafundi bazwisisa kancanikancani bonyana igama ngalinye lizijamele lodwa elandelwaneni nokobana igama ngalinye lijamele inomboro ethileko.

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 kufaka ukubamba komfundi amagama nerhemo lokubala iinomboro, kanengi ngomlolozelo nofana ingoma.

KwaGreyidi R abafundi bafunda irhemo elifaneleko lamagama weenomboro begodu babuyelela ilandelano ngamalanga. Umnqopho wokubalela phezulu kusiza abafundi bezwisise bonyana lokha nasibalela phezulu kunerhemo elithileko leenomboro: elithoma kukunye, bese kubili, kuthathu, kune, njll. Ekuthomeni abafundi abezwisisi kuhle ihlathululo yamagama weenomboro begodu kungenzeka beqe iinomboro elandelwaneni lokubala. Ukutjhwela phezulu umlolozelo nofana umlandelane weenomboro ngomlomo kutjho ukubuyelela amagama weenomboro ngokomkhumbulo. Nalokha abafundi babala ngamagadango wangakubili, ngakuhlanu netjhum basebenzisa ilwazi labo lerhemo leenomboro leli. Ukubamba ngehloko amagama weenomboro nokuzibuyelela ngerhemo lokubala elifaneleko akutjho bonyana abafundi bayakwazi ukubala. Lokhu kuhlukile kunokubala ufuna ukuthola bonyana 'kungakhi'.

Zihleleni ngeenqhema ezincani zangabahlanu bese nithola indawo evulekileko yomsebenzi olandelako ngekumbeni yokubandulela.



Umsebenzi 3

1. Eenqhemeni zenu ezincani yitjhoni umlolozelo, *Kunye, kubili, kuthathu, kune, kuhlanu*, kube nezenzo.

Kunye, kubili, kuthathu, kune, kuhlanu

Kunye, kubili, kuthathu, kune, kuhlanu

Ngakhe ngabamba ifesi ephilako.

'Wayiliselani?'

Ngombana yangiluma umuno.

Kunye, kubili, kuthathu, kune, kuhlanu

Ngasengibamba isirhwarhwa esiphilako.

'Wenzani ngaso?'

Ngasilotjhisa ngasibuyisela.

2. Ucabanga bonyana ukusebenzisa umlolozelo onjengalo kusisenzo esihle sokufundisa ukubala kwaGreyidi R? Nikela Iinzathu zependulo yakho.

Qala emakhasini 77 ne-197 womHlahlandlela wemiSebenzi: *Ithemu 1* ukufumana umlolozelo lo.



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

Ngeenqhema ezincani ezifanako, phendulani imibuzo le:

1. Abafundi bazakufunda ini ngokutjho umlolozelo lo?

2. Abafundi bafunda ini lokha nababuyelela ilandelano leenomboro ngerhemo lokubala elifaneleko?

Balani ngakunye ngerhemo elifaneleko.
Ilandelano leenomboro zokubala.
Iinomboromagama afaneleko.
Hlukanisa iinomboromagama.
Kusiza ngokubamba ngehloko ilandelano lerhemo lokubala.

Ukubala izinto (ukubala ngokuzwisisa)

Amanothi womkghonakalisi

- ◆ Tjengisa bonyana izinto zibalwa njani ngokusebenzisa kunye kokunye okukhambelanako.
- ◆ Bawa abahlanganyeli bathathe iimbalisi ezizele izandla ezimbili *eKhidini yeenSetjenziswa* ngesikhaftinini etafuleni yabo bese bazibeka phambi kwabo. Babawe batjho bonyana ngiliphi iwobhu elineembalisi ezinengi khulu/ezincani khulu. Buza abahlanganyeli bonyana bangakuthola njani lokhu ngaphandle kukubala. Bakhuthaze bonyana bakhambelanise amatshwayo wesiqhema ngasinye ngakunye kokunye ukutjho bonyana ngisiphi isiqhema esinezinengi/ezincani.
- ◆ Bawa abahlanganyeli babale ama-ayithemu esiqhemeni ngasinye ukuthola bonyana ngisiphi esinazinengi khulu/ezincani khulu.
- ◆ Buza abahlanganyeli bonyana ngiliphi ilwazimagama elisetjenzisiweko, isib. bala, kunye, kubili, kuthathu ..., kungaki, -nengi, -mbadlwana, isiqhema.
- ◆ Funda ilwazi eliphathelene nokubala izinto (ukubala ngokuzwisisa) ngenzasi.
- ◆ Qinisekisa bonyana abahlanganyeli bazwisisa umehluko phakathi kokubala ngomlomo nokubala izinto:
 - **Ukubala ngomlomo** kufaka ukubala ngehloko nokulandelanisa iinomboromagama.
 - **Ukubala izinto** kufaka ukukhambelanisa inomborogama nento ngayinye ebalwako nokuzwisisa bonyana inomboro yokugcina etjhiwoko ijamelana inani lenomboro ebaliweko (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 kufaka kunye kokunye okukhambelanako. Lokhu kutjho bonyana into ngayinye nofana isehlakalo ekufanele sibalwe sikhambelaniswa nenomborogama. Ukubala 'kungaki', abafundi kufanele bayelele bonyana into ngayinye ebuthelweni ithola inomborogama ('kunye, kubili, kuthathu, kune ...') nokobana ubala into yinye kanye kwaphela.

Abafundi nasele bazi irhemo leenomboro zokubala, bathoma ukuzwisisa bonyana inomboro ngayinye elandelwaneni lokubala yikulu ngakunye kunenomboro yangaphambili begodu yincani ngakunye kunenomboro elandelako. Ba:

- ◆ ngamadanisa iinomboro ngehloko bese babone bonyana kubili kunengi ngakunye kukunye nokobana kuthathu kunengi ngakunye kunokubili.
- ◆ ngezwisisa bonyana iinomboro zikhula ngakunye ngaso soke isikhathi.
- ◆ ngezwisisa bonyana nofana ngiyiphi inomboro elandelwaneni lokubala yikulu ngakunye poro kunenomboro yangaphambili.

Amanothi womkghonakalisi

- ◆ Hlathululela abahlanganyeli bonyana abafundi abafundi imiqondo yeenomboro namakghono ngokuhlukeneke. Badinga ilemuko langamalanga leenomboro ebujameni obuhlukileko obufaka ukubala ngomlomo, ukubala izinto nokujamiselela inomboro ngeendlela ezihlukileko.
- ◆ Gandlela bonyana abafundi akudingeki batlole amatshwayo wenomboro kwaGreyidi R. Ukufunda ukutlola amatshwayo weenomboro kufanele kuthathwe ngokufanako nokuTlola okusaThomako. Qala iiNomboro, ama-Opharetjhini noBudlelwana emtloveni we-CAPS nemakhasini 114-117 *womHlahlandlela womQondo*.



Ivideo 3

UmHlahlandlela wemiSebenzi: Ithemu 1, iVeke 2, umsebenzi ohlahlwa ngutitjhere #2, 3 (ikhasi 46/47)

Bukela ividiyo yabafundi ababala ibuthelelo lezinto. Lo msebenzi ohlahlwa ngutitjhere. Yeleva bonyana utitjhere ubatjheja njani abafundi ngamunye bese ubabuza imibuzo ebakhuthaza bonyana babelane ngemibono yabo.

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*.

Ukujamiselela iinomboro

Amanothi womkghonakalisi

- ◆ Yitjho lokhu kubahlanganyeli: *Ngikhombisani kuhlanu.*
- ◆ Abahlanganyeli bangafuna ukuphakamisa imino emihlanu. Hlathulula bonyana umqondo nofana umbono wenomboro ungeenhlokweni zethu nokobana angekhe sizibone iinomboro. Angekhe sizibone, kodwana singazijamiselela ngeendlela ezihlukileko, isibonelo, sebenzisa imino, iimbalisi, ukuwahla, amakhandlela wamalanga wokubelethwa. Sijamiselela iinomboro ukukhombisa 'kungaki'.
- ◆ Bawa abahlanganyeli bacabange ngeendlela ezihlukileko zokujamiselela inomboro bese ubabawa bonyana baqedelele **Umsebenzi 10** ngamunye. Bese ubawa abahlanganyeli bonyana babelane ngemibono yabo.
- ◆ Sebenzisa ilwazi elingenzasi ukurhunyeza bonyana abafundi bathoma njani ukujamiselela iinomboro.



Umsebenzi 5

Zingaki iindlela ezihlukileko ongazithola zokujamiselela inomboro 5?

Abafundi bathoma ukujamiselela iinomboro ngokusebenzisa imino yabo bese kancani kancani bathoma ukusebenzisa ezinye iindlela, njengezinto, imidwebo, iinthombe nofana amatshwayo. Abafundi bathuthuka:

- ◆ ukusuka ekusebenziseni izinto zamambala ukujamiselela iinomboro, isib. amalamune, amaswidi, iimpensela, amakari
- ◆ ukuya ekusebenziseni iinthombe nofana imidwebo ukujamiselela izinto, isib. umdwebo welamune, womuntu, wekoloji
- ◆ ukuya ekusebenziseni iimbalisi ukujamiselela izinto nofana iinthombe, isib. amadiski weplastiki ukukhombisa isibalo samalamune
- ◆ ukuya ekusebenziseni iimeregi ukujamiselela izinto ezibonakalako neenthombe, isib. iindulungu, amaqatjhazi, amatshwayo wamathali, itjhada lokuwahla, amabetho wesigubhe, ukubetha phasi ngeenyawo
- ◆ ukuya ekusebenziseni amatshwayo weenomboro neenomboromagama, isib. '2' nofana 'kubili'.

Amanothi womkghonakalisi

- ◆ PPT: Hlathulula bonyana iHlelo leemBalo lisebenzisa indlela yokufundisa inomboro yinye ngesikhathi sinye begodu lilandela ikambiso efanako inomboro enye nenyefundisiwako. Rhunyeza umtlolo ongenzasi ukunikela ihlathululo efitjhezana mayelana nekambiso le.
- ◆ Coca Indatjana yenomboro 1 ekhasi 197 lomHlahlandlela wemiSebenzi: Ithemu 1.

- ◆ Retell the story, this time involving the participants in dramatising the story as you tell it, e.g. by moving like elephants, painting the number 1 on the roof of the house, smelling one flower, flying around like one bird.
- ◆ Demonstrate different number representations by displaying the house template on the wall of the training room and re-telling the *Number 1 story*. Exaggerate 'one' each time it occurs in the story, e.g. one bird, one tree, one bench, one flower, one cloud, one door, one doorbell. Place the number 1 frieze cards in the house template as you progress through the story:
 - the animal (picture)
 - the number symbol (1)
 - the dot (doorbell)
 - the number word (one).

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 6.

Facilitator's notes

- ◆ After the demonstration, ask participants to complete **Activity 6**.
- ◆ 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.

- ◆ Coca indatjana kabutjha, kwanjesi ubandakanye abahlanganyeli ekulingiseni indatjana lokha nawucocako, isib. ngokukhamba njengeendlovu, ukugwala inomboro 1 phezu kwamafulelo wendlu, ukunukelela ithuthumbo linye, ukuphapha mazombe kwangathi uyinyoni yinye.
- ◆ Tjengisa iinjamiseleli zenomboro ezihlukileko ngokukhangisa umfuziselo wendlu phezu kweboda lekumba yokubandulela bese ucoca kabutjha *Indatjana yeenomboro 1*. Federisa 'kunye' ngasosoke isikhathi nakavelako endatjaneni, isib. inyoni yinye, umuthi munye, ibhanga linye, ithuthumbo linye, ilifu linye, umnyango munye, itlogo yomnyango yinye. Beka amakarada womhlobiso wenomboro 1 ngemfuziselweni wendlu lokha nawuragela phambili nendatjana:
 - isilwana (isithombe)
 - itshwayo lenomboro (1)
 - iqatjhazi (itlogo yomnyango)
 - inomborogama (kunye).

Ihlelo leemBalo lisebenzisa indlela eyethula iinomboro 0–10 ngayinye ngesikhathi sinye bese ilandela ikambiso yokufundisa efanako inomboro ngayinye.

- ◆ Kucocwa indatjana ngenomboro. Lokhu kukhuphula ikareko labafundi bese kubanikela ubujamo obujayelekileko nobuthabisako obukhambelana namaphilo namakareko wabafundi.
- ◆ Inomboro ngayinye inomlingisi wesilwana esithileko. Indatjana enesilwana le isetjenziselwa ukwakha umhlobiso wenomboro ukujamiselela inomboro.
- ◆ Ukulingisa indatjana kunikela amathuba wokobana abafundi baphendule ngokusikinya umzimba (ukufunda ngokwenza nokusikinya imizimba yabo).
- ◆ Izinto ziyabuthelwa ukujamiselela inomboro ngeendlela ezihlukileko. Izinto zibekwa endaweni yeembalo.
- ◆ Abafundi bakhambelanisa izinto neenthombe, amakarada wamaqatjhazi, amatshwayo weenomboro neenomboromagama.
- ◆ *INcwadi yamaPhosta* inikela ubujamo bepilo yamambala ukuhlahlambisa imikhulumiswano nokukhuthaza ukurarululwa kwemiraro.

Inomboro 'kunye' ithulwa evekeni yesibili yeThemu 1 ukujayeza abafundi ikambiso le. Ikambiso efanako le isetjenziswa lokha inomboro etja nayithulwako, kungezelelwa ngakunye enomborweni abafundi abayifunde ngaphambili.

Ngaphambi kobana kuqedwe umsebenzi olandelako, khulumisana nomkghonakalisi lokha nakasacoca indatjana yenomboro 1 bese nakha umhlobiso wenomboro ngokusebenzisa umfuziselo wendlu namakarada womhlobiso wesilwana. Ngemva kokulalela indatjana, qedelela Umsebenzi 6.

Amanothi womkghonakalisi

- ◆ Ngemva kwesitjengiso lesi, bawa abahlanganyeli baqedelele **Umsebenzi 6**.
- ◆ Vumela abahlanganyeli bakhulumisane ngombuzo eenqhemeni ezincani bese babelane ngemibono yabo esiqhemeni esikhulu.
- ◆ Cabanga ngelwazimagama elisetjenzisiweko ngesikhathi somsebenzi, isib. kunye, inomboro, itshwayo lenomboro, inomborogama, kungaki, isiqhema, ibuthelole, bala, kuyafana.



Activity 6

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

Picture, dot, number symbol, number word



Umsebenzi 11

Ngiziphi iindlela ezihlukileko ekujanyiselelwe ngazo inomboro 1 endatjaneni?

Isithombe, iqatjhazi, itshwayo lenomboro, inomborogama

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.

Isetjhini 3: Ukusebenzisa indlela yokufundisa ngeenqhema ezihlanu

Ama-iri 2

Sesikhulumisene ngokobana itlasi yokufundisela nokufundela iimbalo ihlelwa njani ngesikhathi sokunqophana neembalo. Isigaba lesi sikhathulula ukuplana nokusebenzisa iHlelo leemBalo begodu kuqalanwa nokulungiselela ukufundisa kweVeke 1 ne-2 zeThemu 1.

Ithemu 1 Isirhunyezo sokuMumethweko (Iimveke 1–2)

(i-iri 1)

Amanothi womKghonakalisi

- ◆ PPT: Isikhathi sangamalanga sokunqophana neemBalo (*umHlahlandlela womQondo*, ikhasi 83) neVeke 1 yesiThasiselo B.
- ◆ Bawa abahlanganyeli bavule iVeke 1 yesiThasiselo B: IThemu 1 Isirhunyezo sokuMumethweko kwaQobe yiVeke (iimVeke 1–2). Hlathulula bonyana Isirhunyezo sokuMumethweko kwaqobe yiVeke kunikela isirhunyezo sokumumethweko kweemBalo kweveke ngayinye. Hlathulula bonyana iphahla leli latlanywa kwase kutlolwa nokumumethweko *kwemiHlahlandlela yemiSebenzi*.
- ◆ Yitjho ngobufitjhani amatshwayo ahlukileko weveke. Funda imisebenzi yetlasi yoke, umsebenzi ohlahlwa ngutitjhere nemisebenzi yesiqhema esincani esizijameleko (esitetjhini sokusebenzela). Abahlanganyeli abasebenzi ngeenqhema ukuqedelela **Umsebenzi 12**.
- ◆ Qalana nesakhiwo Sesirhunyezo sokuMumethweko kwaQobe yiVeke:
 - IsiGaba sokuMumethweko, Isihloko, Ilwazi elitjha, Ukujayeza
 - Imisebenzi yetlasi yoke: eyenziwa nabafundi boke, imisebenzi ekhambelana nesiGaba sokuMumethweko nesihloko, efaka ikambiso yangamalanga efaka hlangana imilolozelo/iingoma, ukubala ngomlomo nokubala izinto.
 - Umsebenzi ohlahlwa ngutitjhere wesiqhema esincani: uqalana ngokukhethekileko nomqondo okufanele ufundiswe, ufaka isiqhema esincani sabafundi abasithandathu ukuya kababunane.
 - Imisebenzi yesiqhema esincani esizijameleko (isitetjhi sokusebenzela): isiza ngokujayeza nokuhlanganisa umqondo othulwe ngetlasini loke nemisebenzi ehlahlwa ngutitjhere.
- ◆ Hlathulula bonyana Isirhunyezo sokuMumethweko kwaQobe yiVeke sinikela isakhiwo nephahla lokuplanela isikhathi sokunqophana neemBalo iveke ngayinye.

Isithasiselo B: Isirhunyezo sokuMumethweko kwaQobe yiVeke (iimVeke 1–2) seThemu 1 sinikela isirhunyezo sokumumethweko begodu sinikela iimphakamiso zokufundisa nokufunda iimbalo iveke ngayinye nelwazi elilandelako:

- ◆ umNqopho wesiGaba sokuMumethweko oqakathhekileko weveke
- ◆ isi/iinhloko ezizokwenziwa
- ◆ Ilwazi elitjha nokujayeza umnqopho weveke
- ◆ imisebenzi yeveke ephakanyisiweko yetlasi yoke neyeenqhema ezincani (umsebenzi ohlahlwa ngutitjhere nemisebenzi yeentetjhini zokusebenzela).

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 yetlasi yoke, umsebenzi ohlahlwa ngutitjhere nemisebenzi yesitetjhini sokusebenzela kusiThasiselo B: Ithemu 1 Isirhunyezo sokuMumethweko kwaQobe yiVeke (Iimveke 1-2).



Umsebenzi 7

Qala isiThasiselo B: Ithemu 1 Isirhunyezo sokuMumethweko kwaQobe yiVeke (Iimveke 1-2). Phendula imibuzo.

Imibuzo	Iveke 1	Iveke 2
Khuyini umNqopho wesiGaba sokuMumethweko weveke?	Iinomboro, ama-Opharetjhini noBudlelwana	Iinomboro, ama-Opharetjhini noBudlelwana
Ngiyiphi imiqondo eqakathekileko ezakufundwa bafundi?	Ukubala ngomlomo Ukubala izinto	Amatshwayo weenomboro Iinomboromagama
Ngiliphi ilwazi elitjha elethuliweko?	Ukubala ngomlomo 1-5 Ukubala izinto 1-3 Kunye kokunye okukhambelanako Ukulandelanisa izehlakalo	Inomboro 1 Ukurarulula imiraro ebujameni bangamalanga
Ngiwaphi amakghono ajayezwako eVekeni 2?		Ukubala ngomlomo 1-5 Ukubala izinto 1-3 Ilwazimagama leveke 1

Amanothi womkghonakalisi

- ◆ PPT: Buyekeza ngobufitjhani indlela yokufundisa ngeenqhema ezihlanu nokobana imisebenzi enqophene nesikhathi seHlelo leemBalo ihlelekile bunjani (imisebenzi yetlasi yoke, isiqhema esincani neyokuzikhethela ngokutjhaphlukileko).
- ◆ Khumbuza abahlanganyeli bonyana umnqopho uphezu komqondo/isihloko esisodwa ngesikhathi sinye isiGaba sokuMumethweko ngasinye.

UmHlahlandlela wemiSebenzi: Ithemu 1

Amanothi womkghonakalisi

- ◆ Hlathulula bonyana *umHlahlandlela wemiSebenzi: Ithemu 1* unikela abotitjhere iimphakamiso zaqobe yiveke zokufundisa iimbalo kwaGreyidi R.
- ◆ PPT: Amatshwayo *womHlahlandlela wemiSebenzi: Ithemu 1 (UmHlahlandlela wemiSebenzi: Ithemu 1, ikhasi 6/7)*.
- ◆ Hlathulula bonyana umsebenzi olandelako uzakunikela abahlanganyeli ithuba lokufunda okunengi okuphathelele *nomHlahlandlela wemiSebenzi: Ithemu 1*.
- ◆ Vumela abahlanganyeli basebenzei ngeenqhema ezincani ukwenza **Umsebenzi 13** bese babelane ngeempendulo zabo nesiqhema esikhulu.
- ◆ Hlanganisa *umHlahlandlela wemiSebenzi: Ithemu 1* nesirhunyezo sokuMumethweko kwaqobe yiVeke.

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 <i>Activity Guide: Term 1</i>	
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 <i>Grade R Maths family story</i> .	
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.

ImiHlahlandlela wemiSebenzi inikela abotitjhere bakwaGreyidi R isakhiwo nephahla begodu inikela neemphakamiso zaqobe yiveke zokufundisa nokufunda iimbalo.

Qala iVeke 1 ne-2 *kumHlahlandlela wemiSebenzi: Ithemu 1* nesiRhunyezo sokuMumethweko kwaQobe yiVeke kusiThasiselo B. Qedelela Umsebenzi 8 esiqhemeni sakho.



Umsebenzi 8

1. Qala *umHlahlandlela wemiSebenzi: Ithemu 1* bese ungezelela ilwazi ethebuleni.

Gijimani mazombe <i>UmHlahlandlela wemiSebenzi: Ithemu 1</i>	
Khuyini okusemakhasini 7, 9 naku-11?	
Ikiliphi ikhasi 'Iphosta yemithetjhwana yetlasi lethu'?	
Sikiliphi ikhasi isirhunyezo seThemu 1?	
Ngiliphi ilwazi elisekuthomeni kweveke ngayinye etja?	
Thola <i>Indatjana yomndeni we-Grade R Maths</i>	
Ngiyiphi iingoma ethulwe ngeVeke 2?	
Thola lapho inomboro 1 ithulwe khona.	
Thola umsebenzi wetlasi yoke onqophene nokubala ngomlomo.	
Thola umsebenzi ohlahlwa ngutitjhere onqophene nakunye kokunye okukhambelanako.	
Thola umsebenzi wesitetjhi sokusebenzela onqophene nokuhlanganisa umqondo wenomboro '1'.	

2. Qala imisebenzi yetlasi yoke, umsebenzi ohlahlwa ngutitjhere nemisebenzi yesitetjhini sokusebenzela kusiThasiselo B. Thola imisebenzi le *kumHlahlandlela wemiSebenzi: Ithemu 1*.



KwaGreyidi R ukuhlolwa akukahleleki begodu kuragela phambili. Kufanele sitjheje abafundi ilanga loke, ngaphakathi nangaphandle kwetlasi.

Ihlelo leemBalo litlanywe ngokudlhegana kweenqhema ezincani phakathi kweveke notitjhere utlhogomela isiqhema esisodwa ngokukhethekileko ngelanga, uyabukela abe alalele lokha abafundi nabenza imisebenzi ethileko. Isikhathi lesi sinikela utitjhere ithuba lokutjheja umfundi ngamunye ngokuyelela okukhulu bese ubuthelela ilwazi mayelana neragelo phambili lakhe.

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.

Qala ibhlogo elitshetlha ekugcineni komsebenzi ohlahlwa ngutitjhere weVeke 2: **‘Tjheja bonyana abafundi bayakwazi uku’**. Itshwayo lelihlo lisikhumbuza bonyana kufanele sitjheje abafundi lokha nabamajadujadu, begodu kufanele silalele kuhle lokha nabakhuluma nathi nabangani babo.

Utitjhere wenza inothi lengcondo ngomfundi ngamunye bese lokha abafundi nasele bakhambile, utlola phasi lokho akutjhejileko encwadini yokutlola okutjhejiweko enesikhala samanothi womfundi ngamunye.

INcwadi yamaPhosta neKhidi yeenSetjenziswa

(10 imizuzu)

Amanothi womkghonakalisi

- ◆ Hlathulula bonyana iintlabagelo ze*Khidi yeenSetjenziswa* zizakusetjenziswa ngesikhathi semisebenzi ehlahlwa ngutitjhere nokobana kuneentlabagelo ezaneleko zesiqhema sabafundi abasithandathu ukuya kababunane. Khumbuza abahlanganyeli ngokumumethwe yi*Khidi yeenSetjenziswa* bese ubakhombisa iinquntu zeentlabagelo ezilandelako bese nikhulumisana ngokobana ngasinye sizakusetjenziswa njani:
 - imatheriyali yokubala: amadiski afakwe umbala neengojwana, iimbalisi zeentlo nezeenlwana, amabhlogo we-*Unifix*
 - idayisi
 - imincamo ehlekileko
 - amakarada weenomboro (amatshwayo weenomboro neenomboromagama)
 - amabhlogo wama-athribhuthi.
- ◆ Khombisa abahlanganyeli i*Ncwadi yamaPhosta* bese uhlathulula bonyana kunemisebenzi kumi*Hlahlandlela yemiSebenzi* esebenzisa i*Ncwadi yamaPhosta* ukuhlahlambisa imikhulumiswano nokuhlanganisa iimbalo ebujameni obujayekekileko besikolo, ekhaya neemphakathini.

IKhidi yeenSetjenziswa ineentlabagelo ezaneleko zesiqhema esincani sabafundi abasithandathu ukuya kababunane. Iintlabagelo ezizakusetjenziswa kuThemu 1 limveke 1 ne-2 zifaka hlangana:

- ◆ iimbalisi: iimbalisi zesilwana nezeentlo
- ◆ amakarada wenomboro: itshwayo lenomboro (1) negama lenomboro (kunye).

Amanothi womkghonakalisi

- ◆ Nikela umhlanganyeli ngamunye i*Khidi yeenSetjenziswa* ne*Ncwadi yamaPhosta*.

Nizakuthola i*Khidi yeenSetjenziswa* ne*Ncwadi yamaPhosta* ngamunye.

Qala emakhasini 6–17 wom*Hlahlandlela wemiSebenzi: Ithemu 1* ukufunda ngeensetjenziswa zetlasi nokulungisa ibhoduluko lokufundela iimbalo.

Closing activities

(10 minutes)

Facilitator's notes

- ◆ **Lessons learnt:** Ask participants to think about what they have learnt during the workshop and to complete **Activity 14** individually.
- ◆ **Take back to school task:** Read through this task. Ask if there is anything that is not clear and that requires more explanation.
- ◆ **Evaluation:** Hand out copies of the Workshop Evaluation Form and have participants complete the form.
- ◆ **Next workshop:** Ask participants to bring the *Poster Book, UmHlahlandlela womQondo* and *Activity Guide: Term 1* to the next workshop. Give dates for the next workshop.
- ◆ **Register:** Remind all participants to make sure that they have signed the register.
- ◆ Close the workshop.



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.

Amanothi womkghonakalisi

- ◆ **Iimfundo ezifundiweko:** Bawa abahlanganyeli bacabange ngalokho abakufundileko ngesikhathi sesifundobandulo nokobana baqedelele **Umsebenzi 14** ngamunye.
- ◆ **Umsebenzi obuyiselwa esikolweni:** Funda umsebenzi lo woke. Buza nangabe kukhona ongakuzwisisi kuhle nokufuna ihlathululo enabileko.
- ◆ **Ukuhlunga:** Khupha amakhophi weForomo lokuHlunga lesiFundobandulo bese unikela abahlanganyeli bawazalise.
- ◆ **Isifundobandulo esilandelako:** Bawa abahlanganyeli beze *neNcwadi yamaPhosta, umHlahlandlela womQondo nomHlahlandlela wemiSebenzi: Ithemu 1* kusifundobandulo esilandelako. Nikela amalanga wesifundobandulo esilandelako.
- ◆ **Irejista:** Khumbuza boke abahlanganyeli baqinisekise bonyana bayitlikitlile Irejista.
- ◆ Vala isifundobandulo.



Umsebenzi 9

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

Izinto engizenzako ezisebenza kuhle	Imibono emitjha engingathanda ukuyizama



Umsebenzi obuyiselwa esikolweni

1. Funda amakhasi *womHlahlandlela womQondo* lawo ebekaqaliwe ngesikhathi sesifundobandulo.
2. Sebenzisa *umHlahlandlela wemiSebenzi: Ithemu 1* ukuplana nokusebenza ngeemVeke 1–2 zeHlelo leemBalo.
3. Cabanga ngokobana imithethokambiso ehlahlako yeHlelo leemBalo ikhambisana njani nokufundisa nokufunda ngetlasini yakho.
4. Lungisa indawo yeembalo. Thatha isithombe sayo bese uzanaso kusifundobandulo esizako.



Bring the following to the next workshop:

- ◆ *Poster Book*
- ◆ *Concept Guide*
- ◆ *Activity Guide: Term 1.*

Evaluation

Complete the Evaluation Form.



Yiza nalokhu okulandelako ngesifundobandulo esilandelako:

- ◆ *INcwadi yamaPhosta*
- ◆ *UmHlahlandlela womQondo*
- ◆ *UmHlahlandlela wemiSebenzi: Ithemu 1.*

Ukuhlunga

Zalisa iForomo lokuHlunga.

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

Term 1: Activity Plan

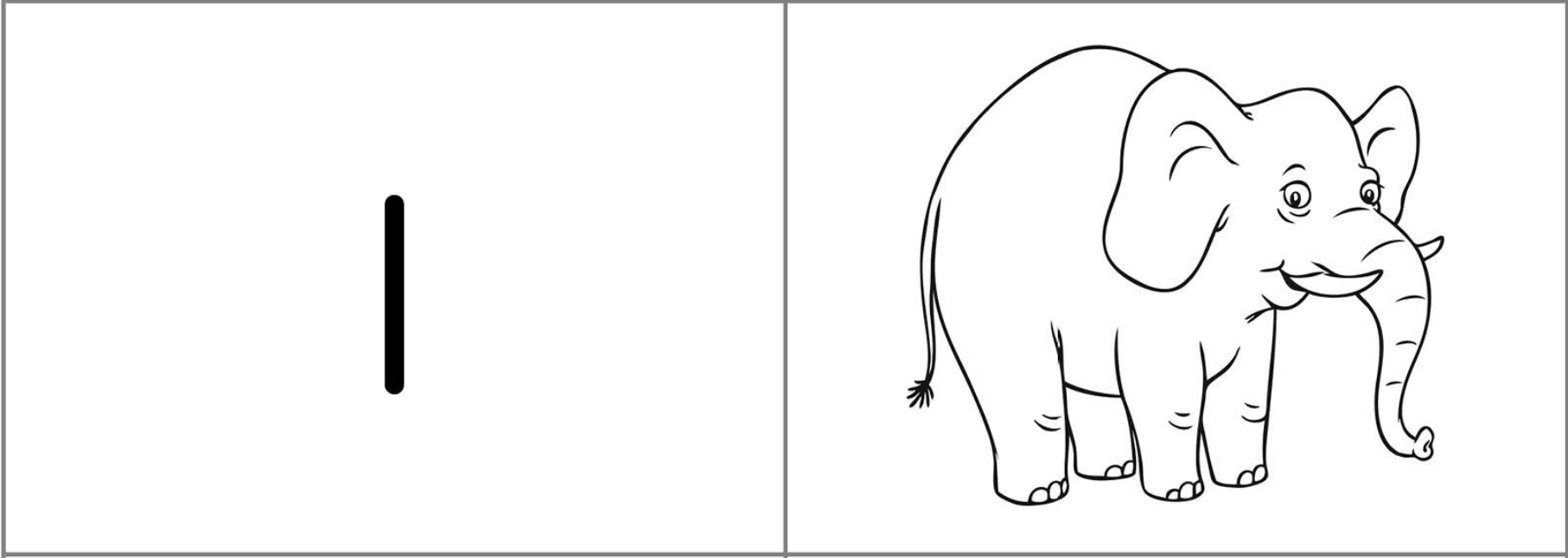
Week 1				
CONTENT AREA: NUMBERS, OPERATIONS AND RELATIONSHIPS				
TOPIC: Oral counting and counting objects				
INTRODUCE NEW KNOWLEDGE: Oral counting 1–5, counting objects 1–3, one-to-one correspondence, sequencing daily programme				
Whole class activities		Teacher-guided activity	Workstation activities	
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 <i>Resource Kit</i>).
Day 2	Helper’s chart, rhyme, <i>Grade R Maths family story</i> .		Activity 2	Playdough or clay modelling.
Day 3	Helper’s chart, Tidy-up chart, rhyme, oral counting and the <i>Grade R Maths family story</i> .		Activity 3	Draw a picture.
Day 4	Rhyme, oral counting, counting objects, sequencing daily events, bowls.		Activity 4	Six-piece puzzle.
Day 5	Rhyme, oral counting, learners’ symbols.		Activity 5	Building blocks.
Week 2				
CONTENT AREA: IINOMBORO, AMA-OPHARETJHINI NOBUDLELWANA				
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.
Day 2	Song, oral counting, frieze for number 1, body games.		Activity 2	Make one playdough object and draw it.
Day 3	Song, oral counting, counting objects, reinforce number 1, look for 1 object.		Activity 3	‘One’ template using playdough.
Day 4	Rhyme, oral counting, problem solving – poster story.		Activity 4	Building blocks.
Day 5	Rhyme, oral counting, counting objects in the poster, solving problems.			

ISITHASISELO B: ITHEMU 1 ISIRHUNYEZO SOKUMUMETHWEKO KWAQOBE YIVEKE (IIMVEKE 1-2)

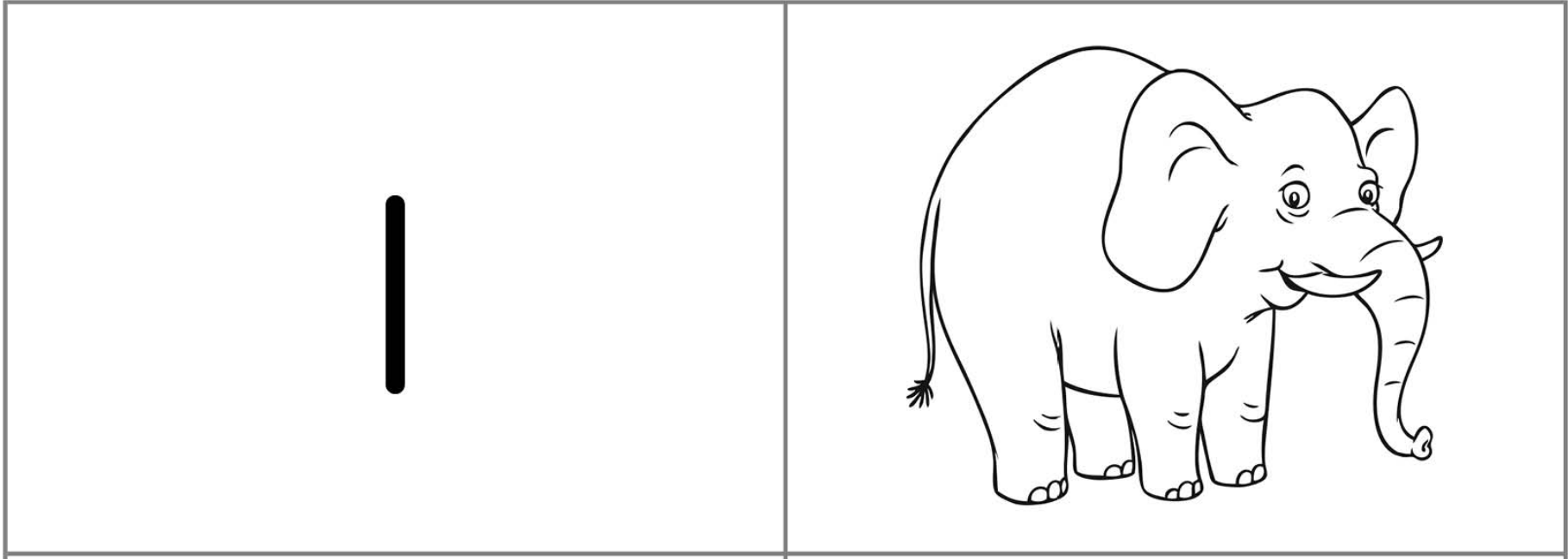
Ithemu 1: Ihlelo lomsebenzi

Iveke 1				
ISIGABA SOKUMUMETHWEKO: IINOMBORO, AMA-OPHARETJHINI NOBUDLELWANA				
ISIHLOKO: Ukubala ngomlomo nokubala izinto				
UKWETHULA ILWAZI ELITJHA: Ukubala ngomlomo 1-5, ukubala izinto 1-3, kunye kokunye okukhambelanako, ukulandelanisa ihlelo langamalanga				
Imisebenzi yetlasi yoke		Umsebenzi ohlahlwa ngutitjhere	Imisebenzi yesitetjhini sokusebenzela	
Ilanga 1	Ikambiso, imithetjhwana yetlasi, amatshwayo womfundi nehlelo langamalanga.	Akunamsebenzi wesiqhema esincani ohlahlwa ngutitjhere evekeni yokuthoma ukuvumela utitjhere akwazi ukukhambela iintetjhi ezihlanu zokusebenzela zoke: ahlahla, asiza begodu akhuthaza abafundi. Abanye abafundi kungenzeka abakaboni nofana akhange khebasebenzise isisetjenziswa ngaphambili ngalokho utitjhere kufanele abatjengise abe asekele imizamo yabo	Umsebenzi 1	Ukuhlela iinlwana neembalisi ngokombala (<i>zeKhidi yeenSetjenziswa</i>)
Ilanga 2	Itjhadi lomsizi, umlolozelo, <i>indatjana yomndeni we-Grade R Maths.</i>		Umsebenzi 2	Ihlama yokudlalisa nofana isitjengisi somdaka. Dweba isithombe.
Ilanga 3	Itjhadi lomsizi, itjhadi lokubutha, umlolozelo, ukubala ngomlomo <i>nendatjana yomndeni we-Grade R Maths.</i>		Umsebenzi 3	Iphazili yeenquntu ezisithandathu.
Ilanga 4	Umlolozelo, ukubala ngomlomo, ukulandelanisa izinto ezenzeka ngamalanga, izitja.		Umsebenzi 4	Amabhlogo wokwakaha.
Ilanga 5	Umlolozelo, ukubala ngomlomo, amatshwayo wabafundi.		Umsebenzi 5	
Iveke 2				
ISIGABA SOKUMUMETHWEKO: IINOMBORO, AMA-OPHARETJHINI NOBUDLELWANA				
ISIHLOKO: Amatshwayo wenomboro namagama wenomboro				
UKWETHULA ILWAZI ELITJHA: Ukwethula inomboro 1, ukurarulula imiraro ebujameni bangamalanga (imilolozelo namaphosta)				
JAYEZA: Ukubala ngomlomo 1-5, ukubala izinto 1-3, ilwazimagama leveke edlulileko				
Imisebenzi yetlasi yoke		Umsebenzi ohlahlwa ngutitjhere	Imisebenzi yesitetjhini sokusebenzela	
Ilanga 1	Ingoma, ukubala ngomlomo, ukwethula inomboro 1 nomhlobiso wenomboro 1, izitho zomzimba ('mingaki?' imidlalo), thola into eyodwa.	Sekela abafundi emizameni yabo yokuqeda umsebenzi. Buza imibuzo ehlahlako bese ukhuthaza abafundi ukwabelana ngemibono yabo. Bala izinto: kunye kokunye okukhambelanako. Hlela iimbalisi zesilwana ngokombala. Khambelanisa amakarada wetshwayo negama lenombor 1 neembalisi zesilwana.	Umsebenzi 1	Ukukhambelanisa iimbalisi namaqatjhaza ngokusebenzisa amabhoksi wamaqanda.
Ilanga 2	Ingoma, ukubala ngomlomo, umhlobiso wenomboro 1, imidlalo yomzimba.		Umsebenzi 2	Yenza into yinye yehlama yokudlalisa bese uyayidweba.
Ilanga 3	Ingoma, ukubala ngomlomo, ukubala izinto, ukugandelela inomboro 1, ukufuna into eyi-1.		Umsebenzi 3	Umfuziselo 'Kunye' ngokusebenzisa ihlama yokudlalisa.
Ilanga 4	Umlolozelo, ukubala ngomlomo, indatjana yephosta yokurarulula umraro.		Umsebenzi 4	Amabhlogo wokwakaha.
Ilanga 5	Umlolozelo, ukubala ngomlomo, ukubala izinto kuphosta, ukurarulula imiraro.			

APPENDIX C: NUMBER 1 FRIEZE CARDS



ISITHASISELO C: AMAKARADA WEMIHLOBISO YENOMBORO 1





one

●	kunya
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Workshop 1 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?

Isifundobandulo 1 Iforomo lokuHlunga

1. Ingabe isifundobandulo sibe ngilokho ebegade ukulindele?

2. Khuyini okufundileko kilesisifundobandulo okukusize khulu?

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

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

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