

Matematiki

Mathematics

2

Kotara 2 : Term 2





Kotara 2 Term 2



**Bala
Wandé**

Calculating with Confidence

Matematiki

Mathematics

Xiletelo xa Mudyondzisi

Teacher's Guide

Xitsonga English

Buku leyi ya ntirho yi hleriwe hi ku tirhisana ka xipano xa *Bala Wandé-Magic Classroom Collective* swin'we na xipanu xa vatsundzuxi lava tokoteke vo huma eka tiyunivhesiti to hlayanyana, mihlangano ya matematiki leyi nga riki ya mfumo na Ndzawulo ya Dyondzo ya Masungulo. Switirhisiwa leswi swi tirhisa tibuku ta ntirho ta DBE na tibuku leti nga kona ta makungu ya tidyondzontsongo (GPLMS, Jika iMfundo, NECT na TMU). Mabokisi ya switirhisiwa swa Bala Wandé ma endliwe hi ku tirhisana na Jade Education. Mabokisi ma tamele switirhisiwa swa xiyimo xa le henhla leswi nga xiphemu xa nkoka xa nongoloko wo dyondza no dyondzisa.

The development of this workbook was carried out by the collaborative *Bala Wandé-Magic Classroom Collective team* in consultation with a reference team made up of individuals from several universities, mathematics NGOs and the Department of Basic Education. These materials draw on the DBE workbooks and existing iterations of lesson plans (GPLMS, Jika iMfundo, NECT and TMU). The Bala Wandé manipulative boxes were designed in consultation with Jade Education. The boxes provide high quality materials which are an integral part of the teaching and learning programme.

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www.fundawande.org

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Nongoloko wa matematiki wa Xiyimo xa Masungulo xa Bala Wande

Funda Wande i nhlangano lowu nga bindzuliki, wu tiyimiseleke ku tiyisekisa leswaku vadyondzi hinkwavo va Afrika Dzonga va kota ku hlaya va twisisa na ku khakhuleta hi ku titshemba hi ririmi ra manana loko va ri emalembeni ya 10. Bala Wande i nongoloko lowu fambisanaka na Matematiki lowu xikongomelo xa wona ku nga ku tiyisekisa leswaku vadyondzi hinkwavo va Afrika Dzonga va hlomisiwa hi masungulo lamanene ya matematiki emalembeni yo rhanga ya xikolo xo sungula.

Nongoloko wa Matematiki wa Bala Wande wu na xiletelo xa siku na siku wa madyondziselo ya Matematiki leswaku vadyondzi va ndlandlamuxa ku twisisa ka vona Matematiki wa ta sungula ku khakhuleta hi ku titshemba. Nongoloko lowu wu endleriwe kharikhulamu ya Afrika Dzonga naswona wu fambisana na CAPS. Leswi nga endzeni, maavelo ya nkarhi na makambeelo ya ku dyondza hinkwaswo swi fambisana na CAPS.

Switirhisiwa swo dyondzisa swa Bala Wande swi na Xiletelo xa Mudyondzisi, Buku ya Migingiriko ya Mudyondzi ni switirhisiwa swa mudyondzisi ni mudyondzi hi vumbirhi (vona pheji ya 6 na ya 7).

1. Ha ku amukela e ka Giredi ya 2!

Hi tsakela leswaku vadyondzi va tolovetiwa maendlelo lamanene loko va dyondza matematiki kusukela emasungulweni. Vulavula na vona va langutisisa lexi va faneleke va endla xona. Siku na siku loko u va tivisa ntirho wa le tlilasini wa mudyondzi hi yexe, pfuna vadyondzi va tolovela leswi.

Ntolovelo wa 1: Ha tilavela. Ndzi vona yini? Ndzi fanele ndzi endla yini?

Ntolovelo wa 2: Hi dirowa swifaniso. Ndzi nga dirowa yini lexi nga ndzi pfunaka ku tlhantlha xiphiko lexi?

Ntolovelo wa 3: Hi vulavula ngopfu hi Matematiki.

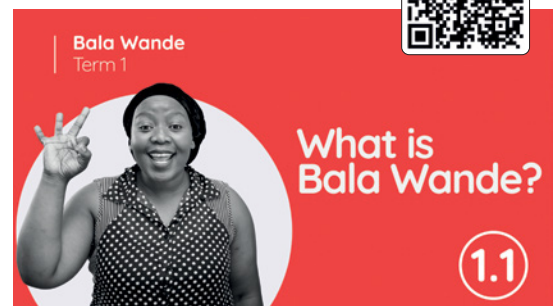
Nan'wana hi tiyimisele ku hlohotela vadyondzi ku vulavula ngopfu hi Matematiki. Tiyimisele ku katsa vadyondzi vo tala hilaha u nga kotaka hakona eka mabulo lama ngheneriwaka hi tlilasi hinkwayo. Fambafamba u kongomisa ntirho wa le tlilasini wa mudyondzi hi yexe – vutisa swivutiso leswi lavaka mavonelo ku vona loko vadyondzi va twisisa leswi va swi endlaka. Yingisela swivutiso leswi va swi vutisaka, u va hlamula swi twisiseka hilaha u nga kotaka hakona.

Veka tihlo eka vadyondzi lava tikeriwaka hi swilo swo tanihi minongoti ya tinomboro ta masugulo. Loko ku ri ni vadyonzi lava tikombaka va nga twisisa tinomboro ta masungulo kusukela ka 0 kufikela ka 10, va nyike migingiriko leyi engetelekeke va tirha hi tinomboro ta muxaka lowu. Tshamela ku va vutisa swivutiso hi tinomboro ni tibondi ta tinomboro ta muxaka lowu kukondza u tiyiseka leswaku va swi kota ku tirha hi ku titshemba hi tinomboro to sukela ka 0 kufikela ka 10.

Switirhisiwa hinkwaswo swa Bala Wande swi tsariwe hi tindzimi timbirhi. Swi seketela ku ndlandlamuxiwa ka ririmi ra Matematiki hi Xitsonga ni Xinghezi hi ku hundzuka eka Xitsonga ni Xinghezi hi ku olova loko u vulavula hi Matematiki. Xihlamuselamarito xa Bala Wande xi ta pfuna vadyondzisi ku tirhisa tindzimi to tlula rin'we ku hlamusela marito ya Matematiki loko swi laveka.

Vadyondzisi vo tala va Matematiki va Afrika Dzonga se va tirhisa tindzimi to tala ku pfuna vadyondzi ku twisisa minongoti na marito ya Matematiki. Ku tirhisa tindzimi to tala swi pfumelela vadyondzisi ni vadyondzi ku tirhisa vuswikoti bya vona hinkwabyo bya tindzimi ku dyondza ku nga ri ku tikeriwa hileswi va tivaka ririmi rin'we. Maendlelo lawa ma tirhisiwa na le matikweni man'wana, ma vuriwa ku tirhisiwa ka tindziminyingi 'translanguaging.'

Eka Xiyimo xa Masungulo, ku dyondzisa Matematiki na ku dyondzisa ririmi swa fambisana. Nongoloko wa Bala Wande wu endleriwe ku ku pfuna eku dyondziseni.



The Bala Wande Foundation Phase mathematics programme

Funda Wande is a not-for-profit organisation that aims to ensure that all learners in South Africa can read for meaning and calculate with confidence in their home language by the age of 10. Bala Wande is the accompanying mathematics programme that aims to ensure that all learners in South Africa receive an effective grounding in mathematics in the early primary school years.

The Bala Wande mathematics programme provides a day-by-day guide on how to teach mathematics so that learners will develop their mathematical understanding and begin to calculate with confidence. The programme was developed specifically for the South African curriculum and is CAPS-compliant. The content, time allocation and assessment for learning all are based on the CAPS.

The Bala Wande course materials comprise a Teacher's Guide, a Learner Activity Book and manipulatives for both teacher and learners (see pages 6 & 7).

1. Welcome to Grade 2!

We would like learners to establish good habits while doing maths right from the start. Talk to them about looking carefully at what they are supposed to do. Each day when you introduce the independent classwork, help learners develop these habits:

Habit 1: We look for ourselves. What do I see? What must I do?

Habit 2: We draw pictures. What can I draw to help me solve the problem?

Habit 3: We talk out loud about maths.

Our biggest goal this year is to encourage learners to start to talk out loud about maths. Aim to involve as many learners as possible in the active whole class discussions. Walk around and facilitate the independent classwork – ask probing questions to find out if learners understand what they are doing. Listen to the questions they ask and respond as clearly as possible.

Keep your eye out for learners who are struggling with basic number concept. If there are learners who do not seem to understand basic numbers from 0 to 10, give them extra activities to work with numbers in this range. Keep asking them questions about numbers and number bonds in this range until you see that they are able to work confidently with the numbers 0 to 10.

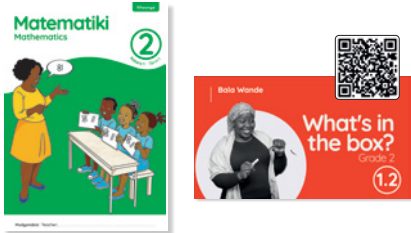
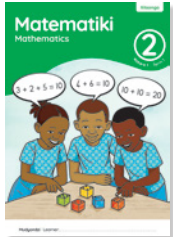
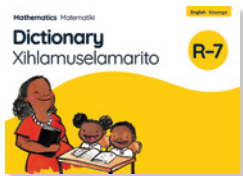
The Bala Wande material is all bilingual. It supports the development of mathematics language in both Xitsonga and English by moving naturally between languages when speaking about mathematics. The Bala Wande dictionary will help teachers use more than one language to explain mathematical words if necessary.

Many South African mathematics teachers already code-switch to help their learners understand mathematical concepts and terms. Code-switching allows teachers and learners to draw on all of their language skills to learn, rather than to be limited by one language only. This practice is used internationally and is also associated with 'translanguaging'.

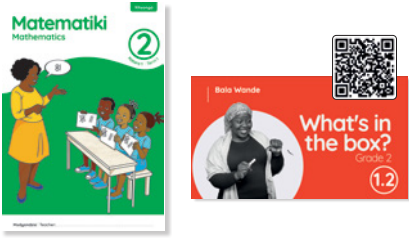
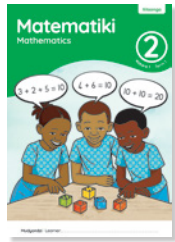
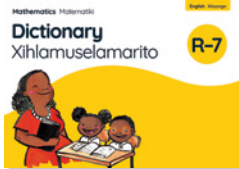
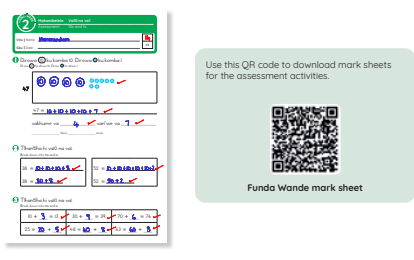
In the Foundation Phase, teaching mathematics and teaching language go together. The Bala Wande programme has been planned to support you in this teaching.



2. Switirhisiwa swo pfuneta mudyondzi ni mudyondzisi swa Bala Wandé

Xiletelo xa Mudyondzisi wa Bala Wandé • nkatsakanyo wa minongoti leyi nga ta dyondzisiwa vhiki ni vhiki • migingiriko ya Menthele ya siku ni siku (Masiku ya 1-4) • migingiriko yikulu yo dyondzisa minongoti naswona yi fambisanaka na tipositara na switirhisiwa (Masiku ya 1-4) • tikopi ta tipheji ta Buku ya Migingiriko ya Mudyondzi ya Bala Wandé ta siku (ti veketeriwe hi ku landzelana eka Xiletelo xa Mudyondzisi) ti na switlhantlho na tinotsi ta mudyondzisi • makambeleso yo dyondza (Siku ra 5, Mavhiki ya 2-8) • nkatsakanyo (Siku ra 5, Mavhiki ya 1-10)	
Buku ya Migingiriko ya Mudyondzi ya Bala Wandé • migingiriko ya siku ni siku leyi fambelanaka na migingiriko ya tidyondzontsongo • migingiriko ya siku ni siku leyi mudyondzi a yi tirhaka hi yexe kumbe hi mitlawa • mitlango leyi fambelanaka na migingiriko ya tidyondzontsongo	
Xihlamuselamarito xa tindzimi timbirhi • xihlamuselamarito xa tindzimi timbirhi xa marito ya Matematiki ya Xiyimo xa Masungulo xi ni tinhlamuselo ni swikombiso	
Tivhidiyo • tivhidiyo ta tidyondzontsongo ti kombisa swifaniso swa vadyondzisi etlilasini va ngenisa tin'wana ta tidyondzontsongo leti kunguhatiweke • tivhidiyo to letela ti na swifaniso swa le tlilasini ku katsa na tiphophayi leti vekaka erivaleni no kombisa madyondziselo lamanene ya Matematiki eka Xiyimo xa Masungulo	
Tiphositara • khalendara • rijisitara ya tlilasi ya marimba ya khume • tiphositara leti fambelanaka na makungu ya tidyondzontsongo	
Switirhisiwa swa mudyondzisi na mudyondzi • switirhisiwa swo hambanahambana swa mudyondzisi na mudyondzi leswi tirhisiwaka etlilasini	
Switirhisiwa swa makambeleso • kungu ra makambeleso ra kotara yin'wana na yin'wana • migingiriko ya nomu na yo endla yi na tiruburiki/nxanameto wa leswi kamberiwaka (2 hi kotara) • migingiriko na mitirho ya makambeleso leyi kunguhatiweke ya siku ra vuntlanu ra vhiki rin'wana na rin'wana (Vhiki ra 2-8: languta mapheji ya le ndzhaku ka xiletelo lexi) • Linki ya khodi ya QR yo xixa maphepha ya timaraka	

2. Bala Wande learner and teacher support materials

Bala Wande Teacher's Guide - overview of the concepts to be taught each week - Mental Maths activities for every day (Days 1–4) - core concept teaching activities supported by posters and manipulatives (Days 1–4) - copies of the Bala Wande Learner Activity Book pages for the day (embedded in sequence in the Teacher's Guide) with solutions and teacher notes - assessment for learning (Day 5, Weeks 2–8) - consolidation (Day 5, Weeks 1–10)	
Bala Wande Learner Activity Book - daily activities that align with the lesson activities - daily activities for learners to work on independently or in groups - games aligned with the lesson activities	
Bilingual dictionary a bilingual dictionary of Foundation Phase mathematical terms with explanations and examples	
Videos - lesson videos showing classroom footage of teachers implementing some of the planned lessons - training videos that provide classroom footage combined with animations that highlight and exemplify good methodologies for the teaching of mathematics in the Foundation Phase	
Posters - a calendar - a ten-frame class register - posters aligned to the lesson plans	
Manipulatives for the teacher and learners a variety of manipulatives for teachers and learners to use in the classroom	
Tools for assessment - assessment plan for each term - oral and practical activities with rubrics/checklists (2 per term) - planned assessment tasks and activities for the 5th day of each week (Weeks 2–8; see back pages of this guide) - QR code link to mark sheet templates	

Nxaxameto wa leswi kamberiwaka • Checklist

Tiphositara • Posters

Khalendara
Calendar



Rijisitara ya tlilasi
Class register



Xikwere xa 100
100 square



Mavito ya tinomboro 0-19
Number names 0-19



Mavito ya tinomboro 10-100
Number names 10-100



Mavito ya tinomboro 100-1000
Number names 100-1000



Masiku ya vhiki
Days of the week



Tin'hweti ta lembe
Months of the year



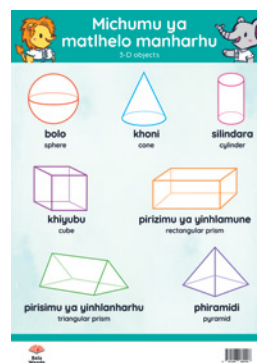
Mali
Money



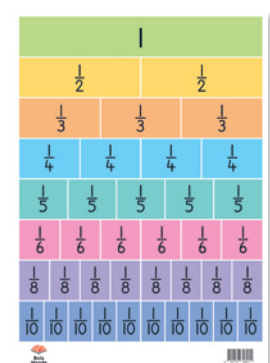
Swivumbeko swa mathelo mambirhi
2-D shapes



Michumu ya mathelo manharhu
3-D objects



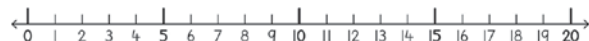
Makhumbi ya tifurakixini
Fraction walls



Ndzhati wa tinomboro 0-20 (wo kala tinomboro)
Number line 0-20 (blank)



Ndzhati wa tinomboro 0-20
Number line 0-20



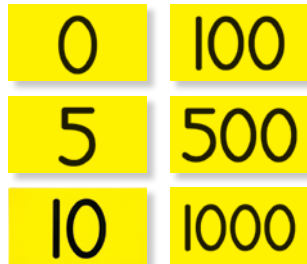
Switirhisiwa swa mudyondzisi ni mudyondzi • Teacher and learner manipulatives

Makhadi ya tinomboro 0-1000 (mudyondzisi)

Number cards 0-1000 (teacher)

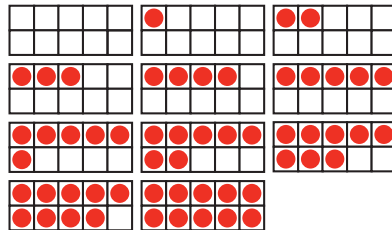
Makhadi ya tinomboro 0-20 (mudyondzi)

Number cards 0-20 (learner)



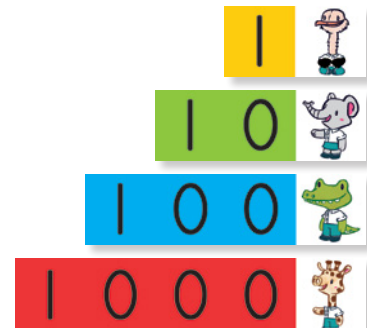
Makhadi ya tidoto 0-10 (ya nkombiso)

Dot cards 0-10 (demo size)



Makhadi ya fuladi 0-1000 (mudyondzisi ni mudyondzi)

Flard cards 0-1000 (teacher and learner)



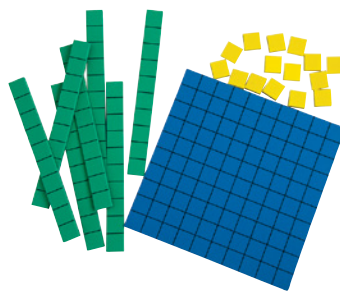
Tibuloko ta multifix (mudyondzisi)

Multifix blocks (teacher)



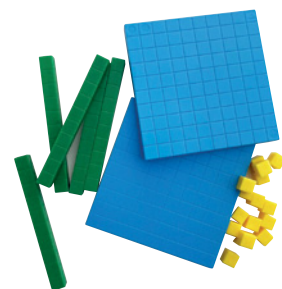
Tibuloko ta masungulo ya khume - 100, 10, 1 (ta nkombiso)

Base ten blocks - 100s, 10s, 1s (demo, magnetic)



Tibuloko ta masungulo ya khume - 100, 10, 1 (to rigana mudyondzi)

Base ten blocks - 100s, 10s, 1s (learner size)



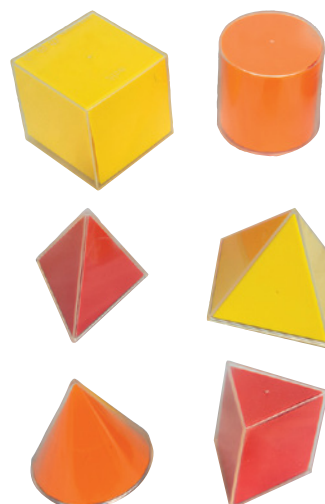
Tiawara ta 24 ta xikombankarhi lexisongo (Mudyondzisi ni mudyondzi)

24-hour small clock (teacher and learner)



Tinete ta swivumbeko swa matlhelo ma3 (3D) (swa nkombiso swa mudyondzisi)

3-D object nets (teacher demo)



Madayizi ma2 ya mudyondzi un'we

2 dice per learner



Thepu yo pima

Tape measure



3. Ku tirhisa nongoloko wa Matematiki wa Bala Wande

Lulamisela vhiki rin'wana na rin'wana

Tirhisa nkatsakanyo lowu nga ephejini ro sungula ku lulamisela vhiki.

Nkatsakanyo wa xihatla wa Menthele na migingiriko ya tidyondzontsongo swa vhiki rero na switirhisiwa sweswo vadyondzisi va ta swi lava

Nxaxameto wa swikongomelo swa vhiki lowu nga tirhisiwaka ku kambela loko tlilasi ya wena yi tirha kahle

Nhlamuselo ya nghingiriko wa makambelelo lowu endliwaka hi Siku ra 5 ra vhiki

VHIKI 1 • WEEK 1

Vangani va10? Vangani va1?

Menthele: Ndzi nyike swa tllala; ndzi nyike leswitsongo eka		Switirhisiwa
Ntlango: Vangani va10? Vangani va1?		xikwere xa 100 tibuloko ta multifix



Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Ku thantsha tinomboro hi va10 na va1	LAB, tibuloko ta multifix
2	Ku thantsha tinomboro hi va10 na va1	LAB, tibuloko ta multifix
3	Vangani va10? Vangani va1?	LAB, tibuloko ta multifix
4	Vangani va1?	LAB
5	Nkatsakanyo na makambelelo ya dyondzo	LAB

Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:

tirhisa tibuloko ta multifix ku thantsha tinomboro hi va10 na va1.

tirhisa tidoto na swifaniso leswi alovisiweke ku yimela tinomboro tanihi va10 na va1.

Makambelelo

Makambelelo ya mafundza ku hava vhiki leri.

U fanele ku xisa vadyondzi siku na siku etlilasi ya wena na ku tsala tinotsi tanihi xiphemu xa makambelelo ya nkamafundza lama yaka emahlweni ya dyondzo.

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Pheji ya vumbirhi yi tamele vuxokoxoko lebyi engelekeke bya migingiriko ya vhiki.

Nhlamuselo ya Menthele na ntlango wa vhiki rero. Loko ku ri na vhidiyo leyi seketelaka migingiriko leyi ku ta va na tikhodi ta QR.

Nhlamuselo ya minongoti ya nkoka leyi nga ta dyondzisiwa evhikini. Tinotsi mayelana na vutivi bya marito lebyi nga ta kandziyisiwa vhiki leri. Loko ku ri na vhidiyo leyi seketelaka minongoti leya nkoka ku ta va na tikhodi ta QR.

Nxaxameto wa swilo leswi vadyondzisi va fanelaka ku swi xalamukela tanihi swihoxo leswi vadyondzi va talaka ku swi endla, ku kandziyisa miehleketo ya nkoka na ku tiva marito ya nkoka ya vhiki rero.

VHIKI 1 • WEEK 1

Vangani va10? Vangani va1?

Menthele

Vhiki leri hi kongomiso eka minongoti ya swi tele eka na switsongo eka dyondzo ya menthele. Mudyondzi u ta kombisa tinomboro eka xikwere xa 100, vadyondzi va fanele va tiva tinomboro leti nga tikulu kumbe leti nga tisono hi 1, 2, 3 kumbe hi 4. Ku tirhisa xikwere xa 100 swi tihela swi pfuna vadyondzi ku tihlova ku tiva tinomboro ta 1 ku fikelela eka 50. Khutaza vadyondzi ku ku nyika tinhlamulo hi xihatla ku endlela ku ndlandlamuxo visiwikati bya vona bya tsundzuka tibondi ta tinomboro hi mfanelo.

Ntlango

Vhiki leri hi ta tlanga ntlango, Vangani va10? Vangani va1? Hi tirhisa tibuloko ta hina. Mudyondzi u ta vitana nomboro, vadyondzi va fanele ku yi eka hi tibuloko ta vona. Mudyondzi un'we u aka vakhume, kufani loyi un'wana u endla vat. Pfunela vadyondzi ku sigerisano ku endla leswi hi vumbirhi. Loko va akile nomboro, va pfumelele ku vulavula hi leswi va swi kombiseke - vangani va10? vangani va1? I nomboro yini?

Ndlandlamuxo wa nongoti

Vhiki leri hi kongomiso eka ku tiva va10 na va1 eka tinomboro. Timbiri hi ku tirhisa swifaniso leswi khomelaka na swadrirowa. Nhlwisa wa nkoka wa ndhawu i wa nkoka swinene eka ku kuma xitshumo xa mikhakuleto ya matematiki. Vadyondzi va fanele ku antswisa ntswiso lowu tyeke wa nkoka wa ndhawu natwana swi lava ku tihlova swinene ku thantsha na ku eka tinomboro ta tidjiti timbiri. Eka ntirho wa hina wa va10 na va1 hi ta kongomiso eka:

- ku tirhisa tibuloko ta multifix ku thantsha tinomboro hi va10 na va1.
- ku tirhisa tidoto na swidrirowa leswi alovisiweke ku yimela tinomboro ta va10 na va1.

Leswi languteriwaka vhiki leri

- Kongomiso eka ku ya emahlweni kusuka eka ku tirhisa tibuloko ku ya tirihi hi swidrirowa swa 2-D. Vadyondzi va fanele va kota ku suka eka tibuloko ta multifix ku ya eka swanokangwa swa drirowa leswi nga ta va swi yimela va10 na va1.
- Khutaza vadyondzi ku vulavula hi leswi va swi endlela hi ku swi vitana tanihi "xihondzo xa va10" kumbe "milla wa va10". Pfuna vadyondzi ku tirihi hi sisteme ya vakhume hi ku va va kota ku tiva leswaku ku na vakhume vangani na leswaku ku na va1 vangani eka nomboro, ku ri na ku ku swi hlojela hinkwazwa.

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3. Using the Bala Wandé mathematics programme

Prepare for each week

How many 10s? How many 1s?

		Resources
Mental Maths: Give me more than, give me less than.		100 square
Game: How many 10s? How many 1s?		multifix blocks



Day	Lesson activity	Lesson resources
1	Breaking down numbers into 10s and 1s	LAB, multifix blocks
2	Breaking down numbers into 10s and 1s	LAB, multifix blocks
3	How many 10s? How many 1s?	LAB, multifix blocks
4	How many 10s? How many 1s?	LAB
5	Consolidation and assessment for learning	LAB

After this week the learner should be able to:

use multifix blocks to break down numbers into 10s and 1s.	✓
use dots and simplified drawings to represent numbers as 10s and 1s.	

Assessment
There is no formal assessment this week.
You should observe the learners in your class daily and make notes as part of your informal ongoing assessment for learning.

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Use the overview on the first page to prepare for the week.

A quick overview of the Mental Maths and lesson activities for the week and the resources teachers will need

A list of aims for the week that can be used to check whether your class is on track

A description of the assessment activity which is done on Day 5 of the week

How many 10s? How many 1s?

Mental Maths This week we focus on the concepts of more than and less than in mental maths. The teacher will point to numbers on the 100 square and learners must identify 1, 2, 3 or 4 more or less. The use of the 100 square also allows learners to practice identifying numbers 1-50. Encourage learners to provide responses quickly in order to develop their ability to recall number facts efficiently.	
Game This week we will play the game How many 10s? How many 1s? using our blocks. The teacher calls out a number and the learners must build it with their blocks. One learner builds the tens and the other learner makes the ones. Let them take turns to do both. When they have built the number let them talk about what they have shown - how many 10s? how many 1s? what is the number?	
Concept development This week we focus on identifying 10s and 1s in two-digit numbers using concrete apparatus and drawings. An understanding of place value is essential in the solution of mathematical calculations. Learners need to establish a sound understanding of place value and so need much practice in the breaking down and building up of two-digit numbers. In our work on 10s and 1s, we will focus on: - using multifix blocks to break down numbers into 10s and 1s - using dots and simplified drawings to represent numbers as 10s and 1s	

What to look out for this week

- Focus on the progression from using blocks to doing 2-D drawings. Learners need to be able to make the shift from multifix blocks to the more abstract representation of drawing 10s and 1s.
- Encourage learners to verbalise what they are doing by referring to 'towers of ten' or 'groups of ten'. Help them work with a system of tens by being able to identify how many tens and how many ones in a number, rather than counting all.

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The second page provides more details about the week's activities.

A description of the Mental Maths and game for the week. If there is a video that supports these activities the QR codes are provided.

A description of the key concepts to be taught over the week. Notes about the vocabulary to emphasise this week. If there is a video that supports these key concepts the QR codes are provided.

A list of things teachers must watch out for such as mistakes learners often make, important ideas to emphasise and key vocabulary for the week.

Leswi vadyondzisi va fanelaka ku swi endla ku lulamisela vhiki rin'wana na rin'wana

- Hlaya xiletelo na dyondzontsongo yin'wana na yin'wana u lulamisela vhiki rero (hlalela vhidiyo loko swi laveka).
- Loko u hetile ku dyondzisa dyondzontsongo, ehleketisisa hileswi yi fambiseke xiswona. Tsala tinotsi ta leswi fambeke kahle na leswi swi lavaka u swi endla hi ndlela yin'wana nkarhi lowu taka.
- Eka Mavhiki ya 2-8, lulamisela nghingiriki wa makambeleso wa vhiki rero. Emavhiki lawa ku endlwaka makambeleso ya nomu na yo endla, vadyondzisi va fanele va kunguhata marhekhodele ya nhluvuko wa mudyondzi hi un'we va tirhisa ruburiki kumbe nxaxameto wa leswi kamberiwaka evhikini.

Siku rin'wana na rin'wana

Tirhisa rijisitara ku hlayela vadyondzi lava nga etlilasi

Nongoloko wa Bala Wande wu endle phositara yo hlawuleka ya rijisitara ya tlilasi. Siku na siku, mudyondzi un'wana na un'wana u ta tifunghelela hi ku dirowa vuhlalu kumbe a tsala maletere lama sungulaka mavito eka rijisitara. Tiyisekisa leswaku vadyondzi va tata marimba ya khume hi nxaxamelo eka rijisitara.

Loko ku sungula tlilasi ya Matematiki, tirhisa rijisitara ku hlayela nhlayo ya vadyondzi lava nga kona etlilasi. Xikombiso, "Khume, makumembirhi, makumenharhu, makumemune, mune. Vadyondzi va makumemune mune va kona namuntlha."

Loko nghingiriki lowu wu vuyeleriwa siku rin'wana na rin'wana wu tiyisa miehleketo ya leswaku ku ntlawhata na ku hlayela hi vakhume swa tirha naswona swi endla vadyondzi va nga ha hlayeli hi van'we.



Vulavurisana na vadyondzi hi siku u tirhisa khalendara

Tirhisa khalendara ku komba lembe, n'hwet, siku na tlilasi siku rin'wana na rin'wana. Fungha siku eka khalendara leyi nga ekhumbini. Katsa na masiku man'wana na man'wana ya ku velekiwa. Leswi i xiphemu xin'wana xo dyondzisa hi nkarhi siku rin'wana na rin'wana ra lembe.

Migingiriki ya mfuwo

Ku na migingiriki yo engetela leyi endleriweke Masiku ya 1-4. Tsala migingiriki leyi ebodweni eku heleni ka dyondzontsongo ku pfuna vadyondzi lava hatlaka va heta ntirho wa le tlilasi.

A hi vulavule hi Matematiki

Nchumu wo hlawuleka hi LAB ya Giredi ya 2 hileswaku hi Siku ra 5 vhiki rin'wana na rin'wana dyondzontsongo yi va na xiyenge xa ririmi. Leswi swi endla u va na nkarhi wo vulavula matematiki hi Xinghezi na Xitsonga na ku pfuxeta swivulwa swa nkoka na marito lama dyondziweke evhikini rero.

A hi vulavule hi Matematiki!

Let's talk Maths!

Hi Xitsonga hi ri:	In English we say:
hlanganisa	add
susa	take away
hlanganisa n'we	add one
susa n'we	take away one
pimanisa	compare
Homu yikulu eka ximanga.	The cow is bigger than the cat.
Ximanga xitsongo eka homu.	The cat is smaller than the cow.
Mune u nkulu eka nharhu.	Four is more than three.
Nharhu u ntsongo eka mune.	Three is less than four.

WEEK 1 • DAY 1

Breaking down numbers into 10s and 1s

Migingiriki ya mfuwo • Enrichment activities

Siku 1 • Day 1	Siku 2 • Day 2
I swingani swo engetela ku kuma 20? How many more to get to 20? 7 + ____ = 20 19 + ____ = 20 5 + ____ = 20 13 + ____ = 20 10 + ____ = 20 4 + ____ = 20 15 + ____ = 20 8 + ____ = 20 17 + ____ = 20 2 + ____ = 20	Hlanganisa. Add. 27 + 2 = ____ 6 + 5 = ____ 13 + 4 = ____ 41 + 7 = ____ 5 + 8 = ____ 34 + 5 = ____ 62 + 6 = ____ 85 + 3 = ____ 56 + 1 = ____ 7 + 8 = ____
Siku 3 • Day 3	Siku 4 • Day 4
Susa. Subtract. 15 - 6 = ____ 38 - 6 = ____ 45 - 4 = ____ 8 - 7 = ____ 26 - 5 = ____ 67 - 3 = ____ 89 - 4 = ____ 54 - 2 = ____ 18 - 9 = ____ 77 - 2 = ____	Metisa patirani. Complete the pattern. 31 32 33 ____ 55 54 53 ____ 65 70 75 ____ 76 66 56 ____ 43 53 63 ____ 22 32 42 ____ 74 75 76 ____ 49 48 47 ____ 37 47 57 ____ 40 45 50 ____

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What teachers need to do to prepare for each week

- Read the guide and prepare for the week and for each lesson (watch the videos if relevant).
- After teaching the lesson, reflect on how it went. Make notes on what went well and what to do differently next time.
- In Weeks 2–8, prepare for the assessment activity of the week. In the weeks in which there is an oral and practical assessment, teachers need to plan how to record each learner's progress using the rubric or checklist over the course of the week.

Each day

Use the register to count the learners in the class

The Bala Wande programme has created a special class register poster. Every day, each learner will mark themselves by putting a dot or their initials on the register. Ensure that the learners fill the ten frames on the register in order.

At the start of the maths class, use the register to count the number of learners present. For example, "Ten, twenty, thirty, forty, four. Forty-four learners are present today."

This repeated daily activity reinforces the idea that grouping and counting in tens is efficient and steers learners away from counting in ones.



Discuss the date with learners using the calendar

Use the calendar to identify the year, month, day and date with the class each day. Mark the date on the wall calendar. Note any birthdays. This forms part of the teaching of time every day of the year.



Enrichment activities

There are enrichment activities provided for Days 1–4. Write these activities on the board at the end of a lesson for learners who finish the classwork activities more quickly.

Let's talk Maths!

A special feature of the Grade 2 LAB is that on Day 5 every week, there is a language component to the lesson. This gives you an opportunity to speak maths in English and Xitsonga and revise key phrases and words learned over the week.

A hi vulavule hi Matematiki!
Let's talk Maths!

Hi Xitsonga hi ri: hlanganisa _____ susa _____ hlanganisa n'we _____ susa n'we _____ pimanisa _____ Homu yikulu eka ximanga. _____ Ximanga xitsongo eka homu. _____ Mune u nkulu eka nharhu. _____ Nharhu u ntsongo eka mune. _____	In English we say: add _____ take away _____ add one _____ take away one _____ compare _____ The cow is bigger than the cat. _____ The cat is smaller than the cow. _____ Four is more than three. _____ Three is less than four. _____
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WEEK 1 • DAY 1
Breaking down numbers into 10s and 1s

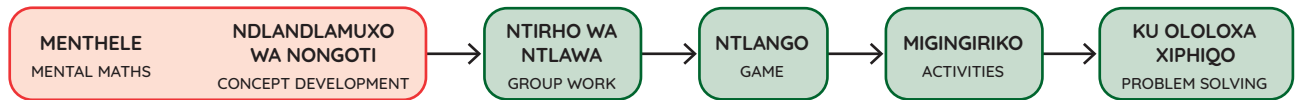
Mingiriko ya mfuwo • Enrichment activities

Siku 1 • Day 1 I swingani awo engetelo ku kuma 20? How many more to get to 20? 7 + ____ = 20 19 + ____ = 20 5 + ____ = 20 13 + ____ = 20 10 + ____ = 20 4 + ____ = 20 15 + ____ = 20 8 + ____ = 20 17 + ____ = 20 2 + ____ = 20	Siku 2 • Day 2 Hlanganisa. Add. 27 + 2 = ____ 6 + 5 = ____ 13 + 4 = ____ 41 + 7 = ____ 5 + 8 = ____ 34 + 5 = ____ 62 + 6 = ____ 85 + 3 = ____ 56 + 1 = ____ 7 + 8 = ____
Siku 3 • Day 3 Susa. Subtract. 15 - 6 = ____ 38 - 6 = ____ 45 - 4 = ____ 8 - 7 = ____ 26 - 5 = ____ 67 - 3 = ____ 89 - 4 = ____ 54 - 2 = ____ 18 - 9 = ____ 77 - 2 = ____	Siku 4 • Day 4 Hetiso patironi. Complete the pattern. 31 32 33 _____ 55 54 53 _____ 65 70 75 _____ 76 66 56 _____ 43 53 63 _____ 22 32 42 _____ 74 75 76 _____ 99 88 87 _____ 37 47 57 _____ 40 45 50 _____

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Tirhisa dayagiramu ya nkholuko ku vona ku landzelana ka mingiriko ya siku

Eku sunguleni ka siku rin'wana na rin'wana, ku na dayagiramu ya nkholuko leji katsakanyaka ku landzelana ka mingiriko ya siku.



Endla nghingiriko wa Menthele (timinete ta 15)

Menthele i xiphemu xa nkoka xa dyondzontsongo yin'wana na yin'wana. **Ku hlayela ku katsiwele eka swiyenge swa Menthele swa dyondzontsongo.** Hi tirhisa mingiriko ya Menthele ku tiyisisa leswaku vadyondzi va tiva swilo swa nkoka swa masungulo. Ku na tivhidiyo leti kombisaka ku endliwa mingiriko ya Menthele etlilasini naswona ku na nhlamuselo ya Menthele eka nkatsakanyo wa vhiki. Loko vhiki rin'wana na rin'wana ri sungula, ku na swifaniso leswi landzelanaka swi kombisa nghingiriko wa Menthele lowu fanelaka ku endliwa siku rin'wana na rin'wana ra vhiki.



Endla Ndlandlamuxo wa Minongoti (timinete ta 30)

Ndlandlamuxo wa minongoti i ku tirha ka vadyondzi swin'we hi tlilasi va bula minongoti ya nkoka ya Matematiki wa siku, va nga si avana va va swintlawana kumbe ku tirha hi un'we. Ku na tivhidiyo leti kombisaka ku endliwa mingiriko ya Menthele etlilasini naswona ku na nhlamuselo ya Menthele eka nkatsakanyo wa vhiki. Eka Xiletelo xa Mudyondzisi ku na swifaniso leswi landzelanaka swi kombisa Mingiriko ya ndlandlamuxo wa minongoti.



Tlango ntlango (timinete ta 15)

Mitlango yi pfuna vadyondzi leswaku vuvikoti bya vona byi titirhela na ku va va tsaka loko va tlanga. Hi tirhisa mitlango ya vhiki na vhiki ku dyondzisa na ku katsakanya minongoti ya nkoka ya masungulo na vuswikoti lebyi vadyondzi va fanelaka ku byi tiva.

Mitlango yi humelela eka LAB hi xivumbeko xa tiphophayi. Ku na nhlamuselo ya matlangelo ya ntlango na swikombiso swo pfuna vadyondzi ku landzela matlangelo.

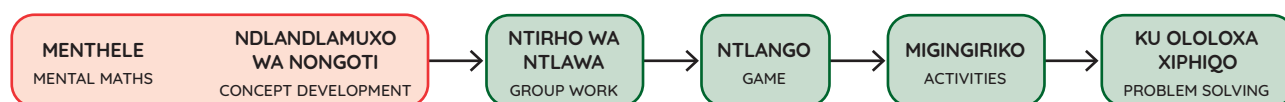
Ntlango: Matematiki wo hatlisa hi makhadi - xaxameta Game: Fast maths with cards - order

- Hlanganisela makhadi kusukela ka 0 kufikela ka 20.
Mix cards from 0 to 20.
- Veka ma va nyandza.
Place in a pile.
- Pfula makhadi manharhu.
Flip up three cards.
- Xaxameta kusuka ka leyitsongo swinene kufikela ka leyikulu swinene.
Order from smallest to biggest.



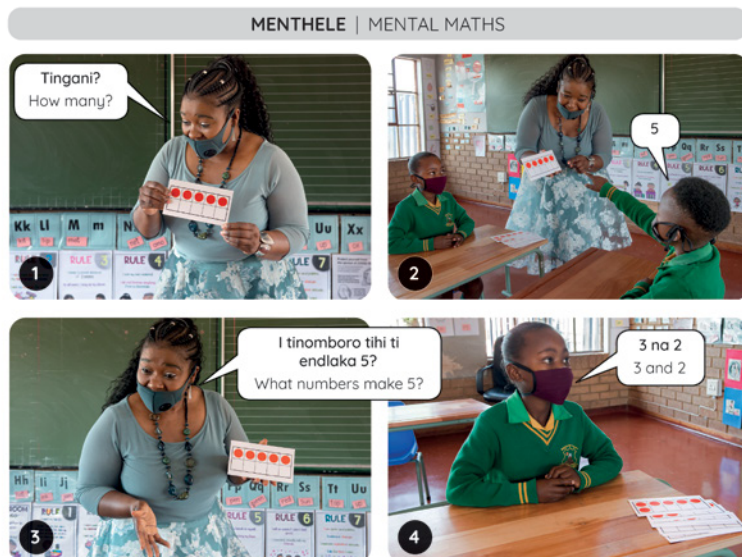
Use the flow diagram to see the sequence of activities for the day

At the start of each day, there is a flow diagram which summarises the sequence of activities for the day.



Do the Mental Maths activity (15 minutes)

Mental Maths is an important component of every lesson. **Counting is included in the Mental Maths component of the lesson.** We use the Mental Maths activities to ensure that learners become fluent in the basic facts. There are some videos showing the Mental Maths activities in action in the classroom and there is a description of the Mental Maths activity in the overview for the week. At the start of each week, there is a photographic sequence that illustrates the Mental Maths activity that must be done every day of the week.



Do the Concept Development (30 minutes)

Concept development is when the learners work together as a class to discuss the key mathematical concept of the day, before they break into smaller groups or work individually. There are some videos showing the concept development activities in action in the classroom and there is a description of the activities in the overview for the week. In the Teacher's Guide, there is a daily photographic sequence to demonstrate the concept development activities.



Play the game (15 minutes)

Games help learners automatise skills and enjoy themselves while they do it. We use weekly games to teach and consolidate important basic concepts and skills learners need to know.

The games appear in the LAB in cartoon format. Steps for how to play the game are provided and an illustration to help learners follow the steps is also given.

Ntlango: Matematiki wo hatlisa hi makhadi - xaxameta Game: Fast maths with cards - order

- Hlanganisela makhadi kusukela ka 0 kufikela ka 20.
Mix cards from 0 to 20.
- Veka ma va nyandza.
Place in a pile.
- Pfula makhadi manharhu.
Flip up three cards.
- Xaxameta kusuka ka leyitsongo swinene kufikela ka leyikulu swinene.
Order from smallest to biggest.



Buku ya Migingiriko ya Mudyondzi ya Bala Wande ya kumeka endzeni ka Xiletelo xa Mudyondzisi

Ku na switlhantlho swo pfuneta mudyondzisi. Eka tipheji tin'wana ku tsariwe tinhlamuselo to koma (hi Xinghezi) tanihi ndzetelo lowu engetelekeke.

Mfungho wa rihlaza wu komba leswaku leri i phepha ro tirhela.

Swileriso na vuxokoxoko hinkwabyo swi hlamuseriwa hi Xitsonga na Xinghezi lexi hundzuluxeriweke ehansi.

Migingiriko ya fana na leyi vadyondzi va yi vonaka etibukwini ta vona. Xikombiso, laha hi na phophayi ya ntlango lowu nga ta tlangiwa hi vadyondzi. Kombisa tlilasi hinkwayo ntlango u nga si pfumelela vadyondzi ku tlanga hi vambirhimbirhi kumbe hi mitlawa.

Maphepha yo tirhela ya mudyondzi ma na xikombiso lexi tirihiweke (xi kombisiwe hi muvala wa nkwalala le ndzhaku na penisele yo tshwuka).

WEEK 2 • DAY 1
Double

2 **SIKU 1 • DAY 1**
Mbirihata Double

MENTHELE (MENTAL MATHS) → NOLANDLAMURO WA NONGOTI (CONCEPT DEVELOPMENT) → NTLANGHO WA NTLAWA (GROUP WORK) → NTLANGHO SANE (SANE) → MIGINGIRIKO (ACTIVITIES) → KU QOLOKA XIPHISO (PROBLEM SOLVING)

Ntlango: Matematiiki wo hatlisa hi makhadi - kutlula hi2
Game: Fast maths with cards - 2 more

- Tlaga ni munghana. Play with a friend.
- Hlanganisa makhadi kusuka ka 0 kufikela ka 10. Veka ma va nyandza. Mix cards from 0 to 10. Put in a pile.
- Pfula khadi rin'we. Flip one card.
- Hlanganisa 2. Add 2.
- Endla u kala u heta nyandza. Work through the pile.
- Endla nakambe. Hatlisa! Do it again. Faster!

Take turns

Loko hi mbirihata, hi vuyelela nomboro ka 2. When we double, we repeat a number 2 times.

Mbirihata 4 Double 4	Mbirihata 3 Double 3	Mbirihata 5 Double 5
Mbirihato wa 4 i 8. Double 4 is 8. $4 + 4 = 8$ $4 \times 2 = 8$ Ku na va4 vambirhi eka 8. There are two 4s in 8.	Mbirihato wa 3 i 6. Double 3 is 6. $3 + 3 = 6$ $3 \times 2 = 6$ Ku na va3 vambirhi eka 6. There are two 3s in 6.	Mbirihato wa 5 i 10. Double 5 is 10. $5 + 5 = 10$ $5 \times 2 = 10$ Ku na va5 vambirhi eka 10. There are two 5s in 10.

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PHEPHA RA NTLHO | WORKSHEET

Ku lulamisela vhiki rin'wana na rin'wana u fanela ku:

- hlaya Xiletelo xa Mudyondzisi na ku lulamisela vhiki na dyondzontsongo yin'wana na yin'wana.
- hlalela tivhidiyo - tona ti kombisa swifaniso leswi tekiweke etitlilasini laha migingiriko ya tidyondzontsongo yi rhangethe kona ku dyondzisiwa naswona vadyondzisi lava yi dyodziseke va nyikaka ntwisiso ni switsundzuxo.

Loko u hetile ku dyondzisa dyondzontsongo, ehleketisisa hileswi yi fambiseke xiswona. Tsala tinotsi ta miehleketo ya wena ya ndlela yin'wana leyi u nga swi endlaka hayona loko u dyondzisa dyondzontsongo leyi enkarhini lowu taka.

Eka Mavhiki ya 2-8 u ta fanela ku lulamisela nghingiriko wa vhiki. I swa nkoka leswaki emavhiki lawa ku nga na migingiriko ya nomu na yo endla u kunguhata ndlela yo rhekhoda nhluvuko wa mudyondzi hi un'we u tirhisa ruburiki kumbe nxaxameto wa leswi kamberiwaka evhikini.

The Bala Wande Learner Activity Book pages are embedded in the Teacher's Guide

Solutions are provided to support the teacher. On some pages, short comments are written (in English) for additional guidance.

The green tag indicates that this is a worksheet.

All instructions and information are given in Xitsonga with an English translation below.

The activities are exactly as the learners will see them in their books. Here, for example, we have a cartoon of a game that the learners will play. In introducing a new game to the learners, it is best to demonstrate the game to the whole class before letting them play in pairs or groups.

Learner worksheets have a worked example (indicated by the grey background and the red pencil).

WEEK 2 • DAY 1
Double

2 **SIKU 1 • DAY 1**
Mbirihata Double

MENTHELE
HEALTHY MATHS

NDLANDLAMUKO
WIA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MGINGIRIKO
ACTIVITIES

KU QOLOLOSA
XIPHIQO
PROBLEM SOLVING

Ntlango: Matemati ki hatlisa hi makhadi - kutlula hi2
Game: Fast maths with cards - 2 more

• Tlanga ni munghana.
Play with a friend.

• Hlanganisela makhadi kusuka ka 0 kufikela ka 10.
Veka ma va nyandza.
Mix cards from 0 to 10. Put in a pile.

• Pfula khadi rin'we.
Flip one card.

• Hlanganisa 2.
Add 2.

• Endla u kala u heta nyandza.
Work through the pile.

• Endla nakambe. Hatlisa!
Do it again. Faster!

Take turns

Loko hi mbirihata, hi vuyelela nomboro ka 2.
When we double, we repeat a number 2 times.

Mbirihata 4
Double 4

Mbirihato wa 4 i 8.
Double 4 is 8.
 $4 + 4 = 8$
 $4 \times 2 = 8$
Ku na va4 vambirhi eka 8.
There are two 4s in 8.

Mbirihata 3
Double 3

Mbirihato wa 3 i 6.
Double 3 is 6.
 $3 + 3 = 6$
 $3 \times 2 = 6$
Ku na va3 vambirhi eka 6.
There are two 3s in 6.

Mbirihata 5
Double 5

Mbirihato wa 5 i 10.
Double 5 is 10.
 $5 + 5 = 10$
 $5 \times 2 = 10$
Ku na va5 vambirhi eka 10.
There are two 5s in 10.

(You can also put 5 dots)

47

To prepare for each week, you need to:

- read the Teacher's Guide and prepare for the week and for each lesson.
- watch the videos – these show clips from real classrooms where the lesson activities have been trialled and the teachers who have taught them provide insights and advice.

After you have taught the lesson, reflect on how it went. Make notes on your ideas for what you would do differently if you taught the lesson again.

In Weeks 2–8 you will need to prepare for the assessment activity of the week. It is particularly important in the weeks in which there is an oral and practical assessment that you plan how you will be able to record each learner's progress using the rubric or checklist over the course of the week.

4. Kungu ra kotara

	Siku 1	Siku 2	Siku 3	Siku 4	Siku 5
Vhiki 1 Vangani va10? Vangani va1?	Ku tlhantlha tinomboro hi va10 na va1	Ku tlhantlha tinomboro hi va10 na va1	Vangani va10? Vangani va1?	Va10 na va1	Makambebele na nkatsakanyo
Vhiki 2 Ku dirowa va10	Va10 na va1	Tinomboro kufikela ka 100	Tinomboro kufikela ka 100	Va10 na va1	Makambebele na nkatsakanyo
Vhiki 3 Ku hlanganisa na ku susa kufikela ka 100	Ku hlanganisa va10	Ku susa va10	Ku hlanganisa va1 eka tinomboro letikulu	Ku susa va1 eka tinomboro letikulu	Makambebele na nkatsakanyo
Vhiki 4 Ku andzisa i ka mitlawe leyi ringanaka	Mitlawe ya 2	Mbirihato	Mitlawe ya 10	Mitlawe ya 5	Makambebele na nkatsakanyo
Vhiki 5 Ku hlanganisa na ku susa hi mindzhati ya tinomboro	Ku hlanganisa na ku susa va1 eka tinomboro letikulu	Ku hlanganisa na ku susa va1 eka tinomboro letikulu	A hi hlanganiseni hi hatlisa!	A hi suse hi hatlisa!	Makambebele na nkatsakanyo
Vhiki 6 Ntiko	Ku pimanisa ntiko	Ku pimanisa ntiko	Ku pima ntiko	Ku pima ntiko	Makambebele na nkatsakanyo
Vhiki 7 Swivumbeko swa 2-D	Ku vula mavito ya swivumbeko swa 2-D	Swivumbeko swa 2-D	Tithangiramu	Swivumbeko swa 2-D	Makambebele na nkatsakanyo
Vhiki 8 Tifurakixini	Tihafu	Tikotara na xanharhu	Xantlanu na xatsevu	Tifurakixini ta xiheri	Makambebele na nkatsakanyo
Vhiki 9 Ku ntlawahata na ku ava	Ku avela va2	Ku avela ku va na nsalo	Ku ntlawahata	Ku ntlawahata ku va na nsalo	Makambebele na nkatsakanyo
Vhiki 10 Mpfuxeto	Va10 na va1	Ku hlanganisa na ku susa kufikela ka 100	Mbirihata u hafula	Mitlawe ya 5 na 10	Tifurakixini na ku ava

Tinomboro, Tioparexini na Vuxaka	Tipatironi, Tifankixini ni Alijebura	Ndhawu ni Xivumbeko (Jometiri)	Mpimo	Matirhiselo ya Vuxokoxoko bya Tinhlayo
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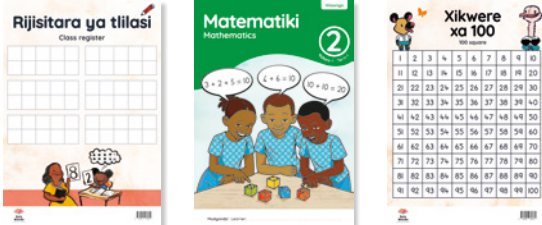
4. Term plan

	Day 1	Day 2	Day 3	Day 4	Day 5
Week 1 How many 10s? How many 1s?	Breaking down numbers into 10s and 1s	Breaking down numbers into 10s and 1s	How many 10s? How many 1s?	10s and 1s	Assessment and consolidation
Week 2 Drawing 10s	10s and 1s	Numbers to 100	Numbers to 100	10s and 1s	Assessment and consolidation
Week 3 Adding and subtracting to 100	Adding 10s	Subtracting 10s	Adding 1s in bigger numbers	Subtracting 1s in bigger numbers	Assessment and consolidation
Week 4 Multiplication is about equal groups	Groups of 2	Doubling	Groups of 10	Groups of 5	Assessment and consolidation
Week 5 Adding and subtracting with number lines	Adding and subtracting 1s in bigger numbers	Adding and subtracting 1s in bigger numbers	Let's add more quickly!	Let's subtract more quickly!	Assessment and consolidation
Week 6 Mass	Comparing mass	Comparing mass	Measuring mass	Measuring mass	Assessment and consolidation
Week 7 2-D Shapes	Naming 2-D shapes	2-D shapes	Tangrams	2-D shapes	Assessment and consolidation
Week 8 Fractions	Halves	Quarters and thirds	Fifths and sixths	Fraction of a whole	Assessment and consolidation
Week 9 Grouping and sharing	Sharing between 2	Sharing with a remainder	Grouping	Grouping with a remainder	Assessment and consolidation
Week 10 Revision	10s and 1s	Adding and subtracting up to 100	Double and half	Groups of 5 and 10	Fractions and sharing

Numbers, Operations and Relationships	Patterns, Functions and Algebra	Space and Shape (Geometry)	Measurement	Data Handling
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Handwriting practice area with 20 horizontal dotted lines.

Vangani va10? Vangani va1?

		Switirhisiwa
Menthele: Ndzi nyike swo tlula; ndzi nyike leswitsongo eka		xikwere xa 100
Ntlango: Vangani va10? Vangani va1?		tibuloko ta multifix
		
Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Ku tlhantlha tinomboro hi va10 na va1	LAB, tibuloko ta multifix
2	Ku tlhantlha tinomboro hi va10 na va1	LAB, tibuloko ta multifix
3	Vangani va10? Vangani va1?	LAB, tibuloko ta multifix
4	Vangani va1?	LAB
5	Nkatsakanyo na makambeelo yo dyondza	LAB

Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:	✓
tirhisa tibuloko ta multifix ku tlhantlha tinomboro hi va10 na va1.	
tirhisa tidoto na swifaniso leswi olovisiweke ku yimela tinomboro tanihi va10 na va1.	

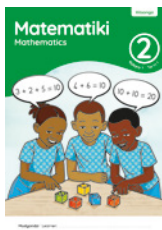
Makambeelo

Makambeelo ya mafundza ku hava vhiki leri.

U fanele ku xiya vadyondzi siku na siku etlilasi ya wena na ku tsala tinotsi tanihi xiphemu xa makambeelo ya nkamafundza lama yaka emahlweni ya dyondzo.

How many 10s? How many 1s?

	Resources
Mental Maths: Give me more than; give me less than.	100 square
Game: How many 10s? How many 1s?	multifix blocks



Day	Lesson activity	Lesson resources
1	Breaking down numbers into 10s and 1s	LAB, multifix blocks
2	Breaking down numbers into 10s and 1s	LAB, multifix blocks
3	How many 10s? How many 1s?	LAB, multifix blocks
4	How many 10s? How many 1s?	LAB
5	Consolidation and assessment for learning	LAB

After this week the learner should be able to:	✓
use multifix blocks to break down numbers into 10s and 1s.	
use dots and simplified drawings to represent numbers as 10s and 1s.	

Assessment

There is no formal assessment this week.

You should observe the learners in your class daily and make notes as part of your informal ongoing assessment for learning.

Vangani va10? Vangani va1?

Menthele

Vhiki leri hi kongomisa eka minongoti ya swi tele eka na switsongo eka dyondzo ya menthele. Mudyondzisi u ta komba tinomboro eka xikwere xa 100, vadyondzi va fanele va tiva tinomboro leti nga tikulu kumbe leti nga titsongo hi 1, 2, 3 kumbe hi 4. Ku tirhisa Xikwere xa 100 swi tlhela swi pfuna vadyondzi ku titoloveta ku tiva tinomboro ta 1 kufikela eka 50. Khutaza vadyondzi ku ku nyika tinhlamulo hi xihatla ku endlela ku ndlandlamuxa vuswikoti bya vona byo tsundzuka tibondi ta tinomboro hi mfanelo.

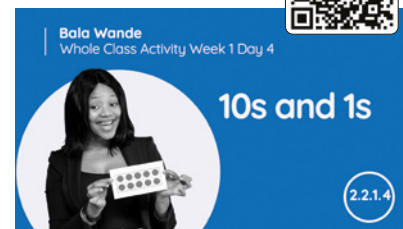
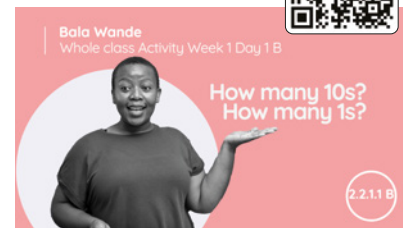
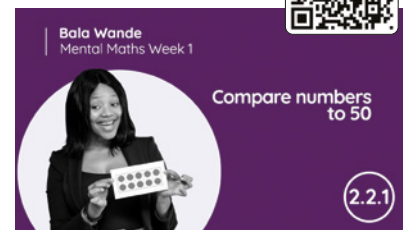
Ntlango

Vhiki leri hi ta tlanga ntlango, Vangani va10? Vangani va1? Hi tirhisa tibuloko ta hina. Mudyondzisi u ta vitana nomboro, vadyondzi va fanele ku yi aka hi tibuloko ta vona. Mudyondzi un'we u aka vakhume, kutani loyi un'wana u endla va1. Pfumelela vadyondzi ku siyerisana ku endla leswi hi vumbirhi. Loko va akile nomboro, va pfumelele ku vulavula hi leswi va swi kombiseke – vangani va10? vangani va1? I nomboro yihi?

Ndlandlamuxo wa nongoti

Vhiki leri hi kongomisa eka ku tiva va10 na va1 eka tinomboro timbirhi hi ku tirhisa swipfuneti leswi khomekaka na swidirowiwa. Ntwisiso wa nkoka wa ndhawu i wa nkoka swinene eka ku kuma xitshunxo xa mikhakhuleto ya matematiki. Vadyondzi va fanele ku antswisa ntwisiso lowu tiyeke wa nkoka wa ndhawu naswona swi lava ku titoloveta swinene ku tlhantlha na ku aka tinomboro ta tidijiti timbirhi. Eka ntirho wa hina wa va10 na va1 hi ta kongomisa eka:

- ku tirhisa tibuloko ta multifix ku tlhantlha tinomboro hi va10 na va1.
- ku tirhisa tidoto na swidirowiwa leswi olovisiweke ku yimela tinomboro ta va10 na va1.



Leswi languteriwaka vhiki leri

- Kongomisa eka ku ya emahlweni kusuka eka ku tirhisa tibuloko ku ya tirha hi swidirowiwa swa 2-D. Vadyondzi va fanele va kota ku suka eka tibuloko ta multifix ku ya eka swianakanyiwa swo dirowiwa leswi nga ta va swi yimela va10 na va1.
- Khutaza vadyondzi ku vulavula hi leswi va swi endlaka hi ku swi vitana tanihi 'xihondzo xa va10' kumbe 'mitlawa ya va10'. Pfuna vadyondzi ku tirha hi sisiteme ya vakhume hi ku va va kota ku tiva leswaku ku na vakhume vangani na leswaku ku na va1 vangani eka nomboro, ku ri na ku swi hlayela hinkwaswo.

How many 10s? How many 1s?

Mental Maths

This week we focus on the concepts of more than and less than in mental maths. The teacher will point to numbers on the 100 square and learners must identify 1, 2, 3 or 4 more or less. The use of the 100 square also allows learners to practice identifying numbers 1–50. Encourage learners to provide responses quickly in order to develop their ability to recall number facts efficiently.

Game

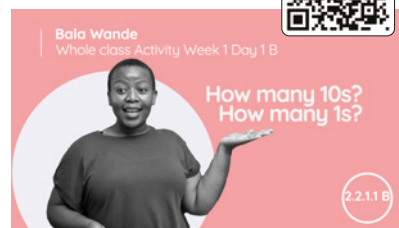
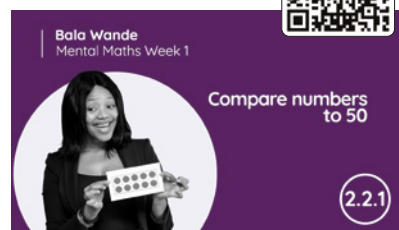
This week we will play the game How many 10s? How many 1s? using our blocks. The teacher calls out a number and the learners must build it with their blocks. One learner builds the tens and the other learner makes the ones. Let them take turns to do both. When they have built the number let them talk about what they have shown – how many 10s? how many 1s? what is the number?

Concept development

This week we focus on identifying 10s and 1s in two-digit numbers using concrete apparatus and drawings. An understanding of place value is essential in the solution of mathematical calculations.

Learners need to establish a sound understanding of place value and so need much practice in the breaking down and building up of two-digit numbers. In our work on 10s and 1s, we will focus on:

- using multifix blocks to break down numbers into 10s and 1s.
- using dots and simplified drawings to represent numbers as 10s and 1s.



What to look out for this week

- Focus on the progression from using blocks to doing 2-D drawings. Learners need to be able to make the shift from multifix blocks to the more abstract representation of drawing 10s and 1s.
- Encourage learners to verbalise what they are doing by referring to 'towers of ten' or 'groups of ten'. Help them work with a system of tens by being able to identify how many tens and how many ones in a number, rather than counting all.

VHIKI 1 • SIKU 1

Ku tlhantlha tinomboro hi va10 na va1



MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

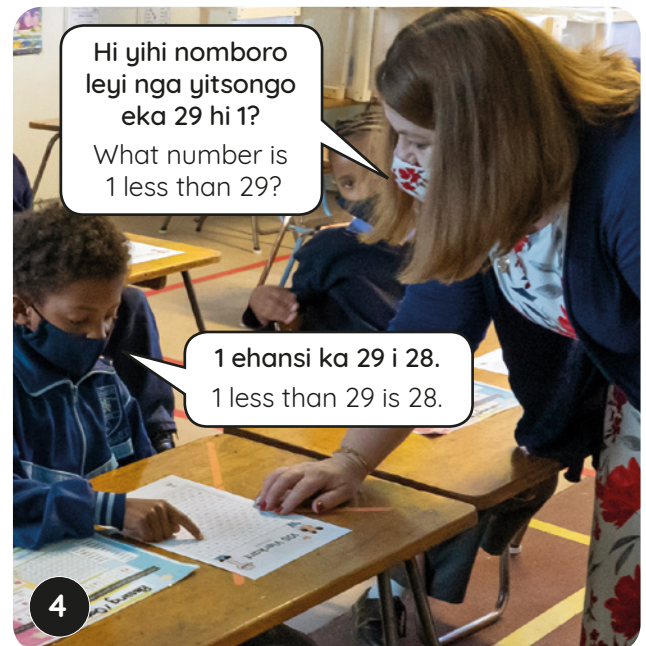
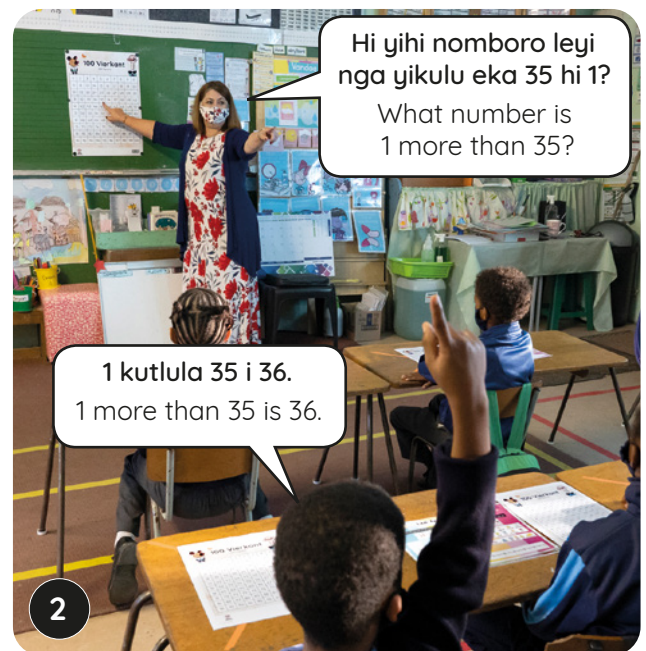
MENTHELE | MENTAL MATHS

Pfumelela ku tirha mikarhi yo hlayanyana hi swi tele eka na switsongo eka nomboro leyi nyikiweke.

Allow multiple opportunities for working with more and less than a given number.

Tsundzuka ku kamba siku na ku maka rijisitara siku rin'wana na rin'wana.

Remember to check the date and mark the register every day.



WEEK 1 • DAY 1

Breaking down numbers into 10s and 1s

Migingiriko ya mfuwo • Enrichment activities

Siku 1 • Day 1

I swingani swo engetela ku kuma 20?

How many more to get to 20?

$$7 + \underline{\quad} = 20$$

$$19 + \underline{\quad} = 20$$

$$5 + \underline{\quad} = 20$$

$$13 + \underline{\quad} = 20$$

$$10 + \underline{\quad} = 20$$

$$4 + \underline{\quad} = 20$$

$$15 + \underline{\quad} = 20$$

$$8 + \underline{\quad} = 20$$

$$17 + \underline{\quad} = 20$$

$$2 + \underline{\quad} = 20$$

Siku 2 • Day 2

Hlanganisa.

Add.

$$27 + 2 = \underline{\quad}$$

$$6 + 5 = \underline{\quad}$$

$$13 + 4 = \underline{\quad}$$

$$41 + 7 = \underline{\quad}$$

$$5 + 8 = \underline{\quad}$$

$$34 + 5 = \underline{\quad}$$

$$62 + 6 = \underline{\quad}$$

$$85 + 3 = \underline{\quad}$$

$$56 + 1 = \underline{\quad}$$

$$7 + 8 = \underline{\quad}$$

Siku 3 • Day 3

Susa.

Subtract.

$$15 - 6 = \underline{\quad}$$

$$38 - 6 = \underline{\quad}$$

$$45 - 4 = \underline{\quad}$$

$$11 - 7 = \underline{\quad}$$

$$26 - 5 = \underline{\quad}$$

$$67 - 3 = \underline{\quad}$$

$$89 - 4 = \underline{\quad}$$

$$54 - 2 = \underline{\quad}$$

$$18 - 9 = \underline{\quad}$$

$$77 - 2 = \underline{\quad}$$

Siku 4 • Day 4

Hetisa patironi.

Complete the pattern.

$$31 \ 32 \ 33 \ \underline{\quad} \ \underline{\quad} \ \underline{\quad}$$

$$55 \ 54 \ 53 \ \underline{\quad} \ \underline{\quad} \ \underline{\quad}$$

$$65 \ 70 \ 75 \ \underline{\quad} \ \underline{\quad} \ \underline{\quad}$$

$$76 \ 66 \ 56 \ \underline{\quad} \ \underline{\quad} \ \underline{\quad}$$

$$43 \ 53 \ 63 \ \underline{\quad} \ \underline{\quad} \ \underline{\quad}$$

$$22 \ 32 \ 42 \ \underline{\quad} \ \underline{\quad} \ \underline{\quad}$$

$$74 \ 75 \ 76 \ \underline{\quad} \ \underline{\quad} \ \underline{\quad}$$

$$99 \ 98 \ 97 \ \underline{\quad} \ \underline{\quad} \ \underline{\quad}$$

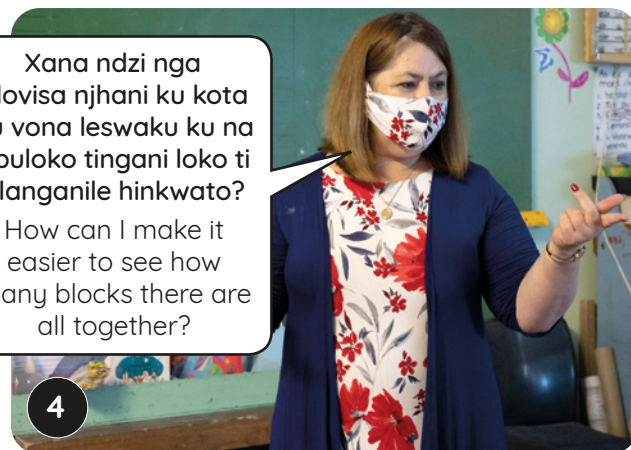
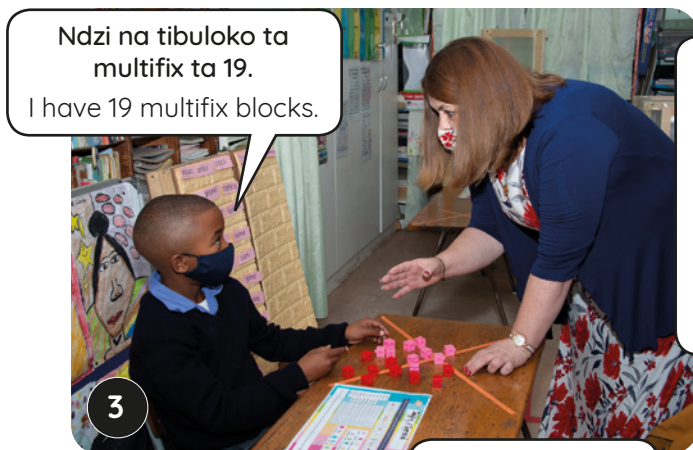
$$37 \ 47 \ 57 \ \underline{\quad} \ \underline{\quad} \ \underline{\quad}$$

$$40 \ 45 \ 50 \ \underline{\quad} \ \underline{\quad} \ \underline{\quad}$$

VHIKI 1 • SIKU 1

Ku tlhantlha tinomboro hi va10 na va1

NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



Vuyelela magoza lama nga laha henhla hi ku tirhisa tinomboro to hambana. Khutaza vadyondzi ku vulavula hi nhlayo ya va10 na va1 lava nga na vona. Tiysisisa leswaku vadyondzi va aka swihondzo leswi yimelaka va10 hi tibuloko ta vona ta multifix. Ku vulavula hi ku aka va10 swi ta pfuna vadyondzi ku entisa ntwisiso wa vona.

Repeat the steps above using different numbers. Encourage learners to talk about the number of 10s and 1s they have. Ensure that learners represent the 10s by building towers of tens with their multifix blocks. Talking about building 10s will help learners deepen their understanding.



Breaking down numbers into 10s and 1s

WEEK

1

SIKU 1 • DAY 1

Ku tlhantlha tinomboro hi va10 na va1

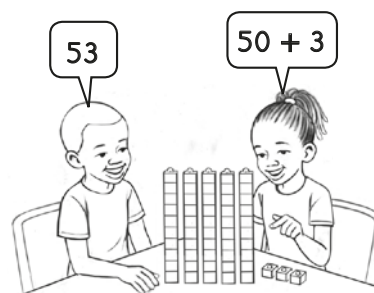
Breaking down numbers into 10s and 1s



Ntlango: Vangani va10? Vangani va1?

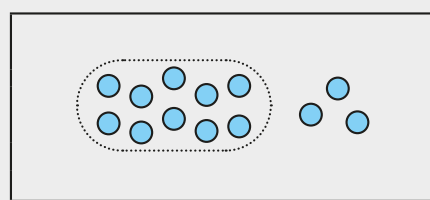
Game: How many 10s? How many 1s?

- Tirhani hi vambirhi hi tibuloko ta n'wina.
Work in pairs with your blocks.
- Akani nomboro mi tirhisa tibuloko ta n'wina.
Build the number using your blocks.
- I vakhume vangani?
I van'we vangani?
How many tens? How many ones?
- I mani nomboro?
What is the number?



- 1** Bana xirhendzevutana eka mitlawa ya 10. I mani nomboro?
Circle groups of 10. What is the number?

Loko u vona nomboro, languta vakhume!
When you see a number, look for the tens!



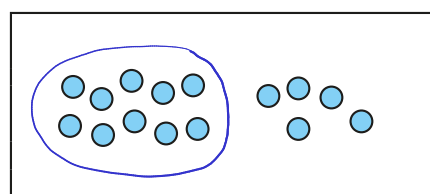
Vangani va10? 1

How many 10s? 1

Vangani va1? 3

How many 1s? 3

13



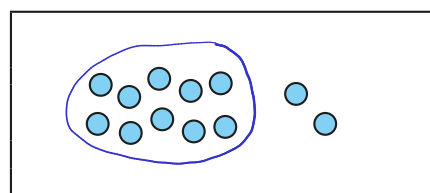
Vangani va10? 1

How many 10s? 1

Vangani va1? 5

How many 1s? 5

15



Vangani va10? 1

How many 10s? 1

Vangani va1? 2

How many 1s? 2

12

VHIKI 1 • SIKU 1

Ku tlhantlha tinomboro hi va10 na va1

- 2 Bana xirhendzevutana eka vakhume.
I mani nomboro?

Circle the tens. What is the number?

		Vangani va10? <u>1</u> How many 10s? <u>1</u> Vangani va1? <u>4</u> How many 1s? <u>4</u> <u>10</u> + <u>4</u> = <u>14</u>
		Vangani va10? <u>2</u> How many 10s? _____ Vangani va1? <u>8</u> How many 1s? _____ <u>10</u> + <u>8</u> = <u>18</u>



Ndzi nga aka tinomboro hi tikhigubu. Ndzi nga dirowa tinomboro hi tidoto. Ndzi tshamela ku endla mitlawa ya 10.

I can build numbers with cubes. I can draw numbers with dots. I always make groups of 10.



Tlhantlha nomboro hi va10 na va1. Tsala xivulwa xa tinomboro. Rhanga u veka va10.

Break down the number into 10s and 1s. Write a number sentence. Put the 10s first.

- 3 Tlhantlha nomboro hi va10 na va1.

Break down the number into 10s and 1s.

16 = <u>10 + 6</u>	17 = <u>10 + 7</u>
19 = <u>10 + 9</u>	12 = <u>10 + 2</u>

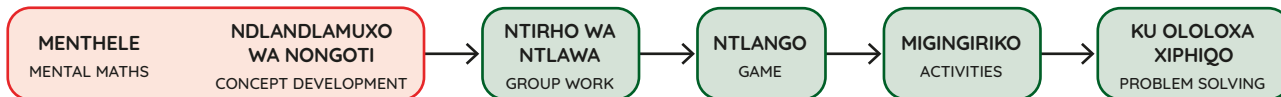
- 4 Khakhuleta!

Calculate!

10 + <u>1</u> = 11	10 + <u>4</u> = 14	10 + <u>7</u> = 17
10 + <u>2</u> = 12	10 + <u>5</u> = 15	10 + <u>8</u> = 18

WEEK 1 • DAY 2

Breaking down numbers into 10s and 1s



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Tirhisa tibuloko ku ndzi komba nomboro leyi nga na khume u1 na va1 va 3.

Use your blocks to show me the number that has 1 ten and 3 ones.

Yimisa voko ku komba leswaku u hetile.

Raise your hand to show me when you're done.

Xana u ake nomboro yihi?
What number did you build?

1



13

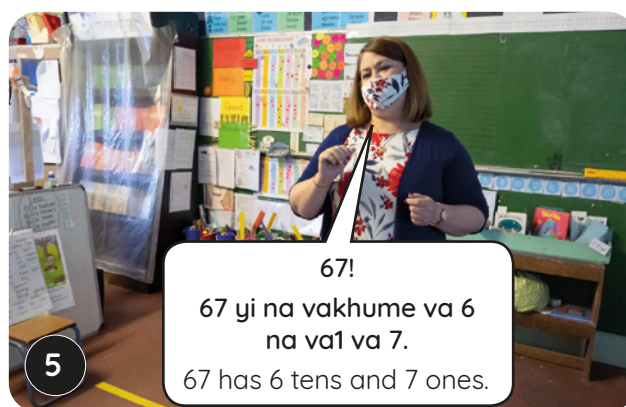


13 u na khume u1 na va1 va 3.
13 has 1 ten and 3 ones.

Tirhisa tibuloko ku ndzi komba nomboro leyi nga na vakhume va 6 na va1 va 7.

Use your blocks to show me the number that has 6 tens and 7 ones.

4



67!

67 yi na vakhume va 6 na va1 va 7.
67 has 6 tens and 7 ones.

Vuyelela magoza lama nga laha henhla hi ku tirhisa tinomboro to hambana. Nyika vadyondzi nkarhi wo hlayanyana leswaku va kombisa hi ku tirhisa tibuloko ta multifix ku yimela tinomboro tanihi va10 na va1.

Repeat the steps above using different numbers. Provide multiple opportunities for learners to represent numbers as 10s and 1s using their multifix blocks.

VHIKI 1 • SIKU 2

Ku tlhantlha tinomboro hi va10 na va1

VHIKI • WEEK
1

SIKU 2 • DAY 2

Ku tlhantlha tinomboro hi va10 na va1

Breaking down numbers into 10s and 1s

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

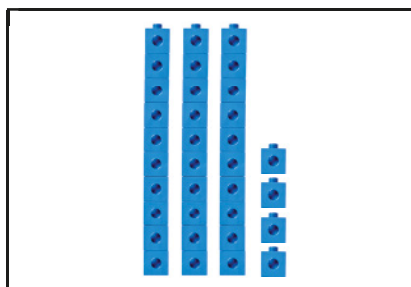
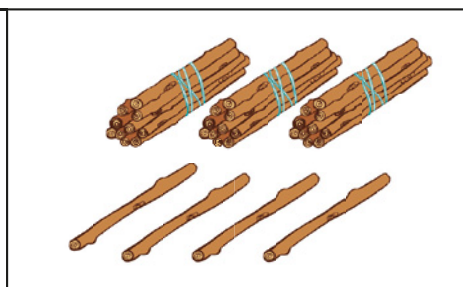
NTLANGO
GAME

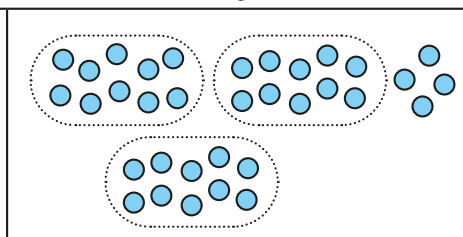
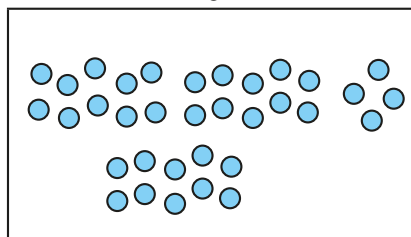
MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

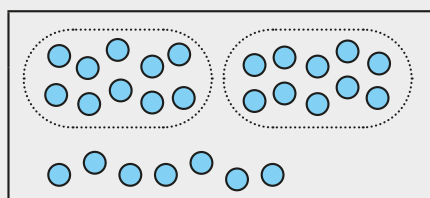
Loko ndzi hlangua ni nomboro,
ndza vutisa, "I vakhume
vangani? I van'we vangani?"

When I meet a number,
I ask, "How many tens?
How many ones?"

Ndzi nga aka
tinomboro ndzi
tirhisa tikhiyubu.
I can build numbers
using cubes.

vakhume vanharhu
na mune
thirty-four

vakhume vanharhu
na mune
thirty-four

Loko ndzi dirowa,
ndzi ba
xirhendzevutana eka
khume hi un'we!
When I draw,
I circle each ten!

vakhume vanharhu
na mune
thirty-four

I Bana xirhendzevutana eka mitlawwa ya 10. I mani nomboro?
Circle groups of 10. What is the number?


vakhume vambirhi van'we va nkombo
two tens seven ones

Vangani va10? 2

How many 10s? 2

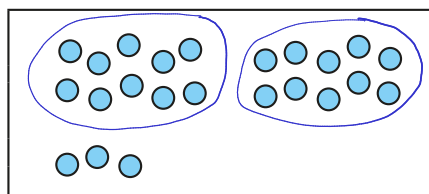
Vangani va1? 7

How many 1s? 7

27

WEEK 1 • DAY 2

Breaking down numbers into 10s and 1s



Vangani val0? 2

How many 10s? _____

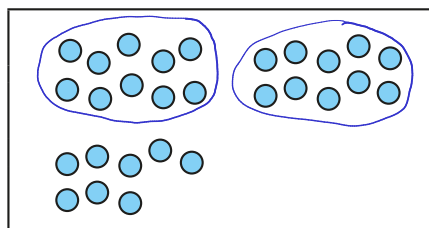
Vangani val? 3

How many 1s? _____

23

vakhume va _____ van'we va _____

two tens three ones



Vangani val0? 2

How many 10s? _____

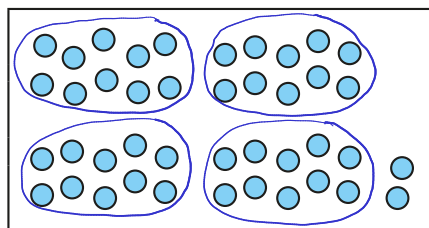
Vangani val? 8

How many 1s? _____

28

vakhume va _____ van'we va _____

two tens eight ones



Vangani val0? 4

How many 10s? _____

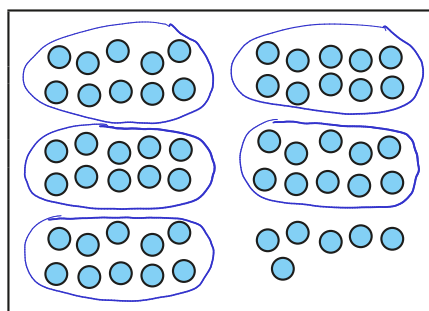
Vangani val? 2

How many 1s? _____

42

vakhume va _____ van'we va _____

four tens two ones



Vangani val0? 5

How many 10s? _____

Vangani val? 6

How many 1s? _____

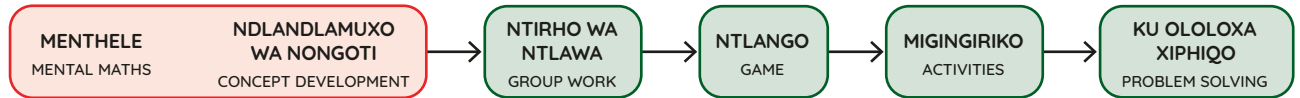
56

vakhume va _____ van'we va _____

five tens six ones

VHIKI 1 • SIKU 3

Vangani va10? Vangani va1?



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Xana u nga ndzi komba nomboro 34 hi ku tirhisa tibuloko ta wena?
Can you show me the number 34 using your blocks?

1

Ndzi hlayerile tibuloko ta 34.
I counted out 34 blocks.

2

A hi diroweni nomboro ya 34.
Let's draw the number 34.

3

Ndzi nga dirowa tidoto ta 34!
I can draw 34 dots!

Xana ku na va10 na va1 vangani eka 34?
How many 10s and 1s there are in 34?

4

Ku na vakhume va 3 na va1 va 4.
There are 3 tens and 4 ones.

Xana u nga ndzi kombisa njhani va10 na va1 hi ti buloko na tidoto ta wena?
How can you show me the 10s and 1s with your multifix blocks and your dots?

5

Ndzi endle swihondzo swi3 swa va10 naswona ndzi na va1 va 4.
I made 3 towers of 10 and I have 4 ones.

Ndzi nga tsondzela mitlawa yi3 ya vakhume naswona ku na nsalo wa 4 wa tidoto.
I can circle 3 groups of ten and 4 dots are left over.

6

Vuyelela magoza lama nga laha henhla hi ku tirhisa tinomboro to hambana. Tiyisisa leswaku va tsondzela va10 hi mfanelo. Khutaza vadyondzi ku vulavula hi nhlayo ya va10 na va1.

Repeat the steps above using different numbers. Make sure they are correctly circling 10s. Encourage learners to talk about the number of 10s and 1s.

WEEK 1 • DAY 3

How many 10s? How many 1s?



SIKU 3 • DAY 3

Vangani va10? Vangani val?
How many 10s? How many 1s?

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

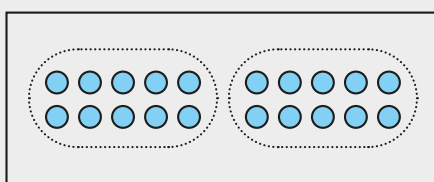
MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

1 Bana xirhendzevutana
eka mitlawwa ya 10.
I mani nomboro?

Circle groups of 10. What is the number?

Vangani val0?
Vangani val?
How many 10s?
How many 1s?



Vangani val0? 2

How many 10s? 2

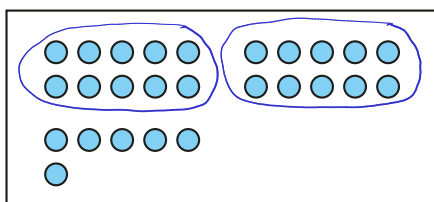
Vangani val? 0

How many 1s? 0

20

vakhume vambirhi van'we va ziri

two tens zero ones



Vangani val0? 2

How many 10s? 2

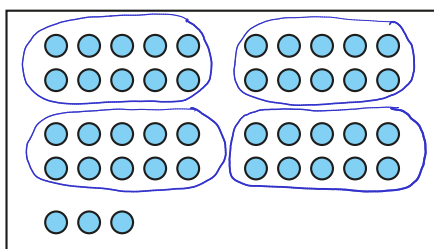
Vangani val? 6

How many 1s? 6

26

vakhume va _____ van'we va _____

two tens six ones



Vangani val0? 4

How many 10s? 4

Vangani val? 3

How many 1s? 3

43

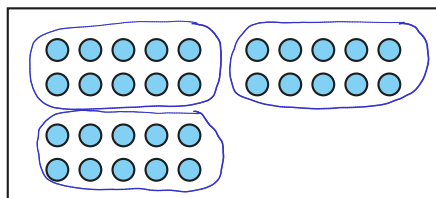
vakhume va _____ van'we va _____

four tens three ones

VHIKI 1 • SIKU 3

Vangani va10? Vangani va1?

- 2 Bana xirhendzevutana eka mitlawa ya 10. I mani nomboro?
Circle groups of 10. What is the number?

Vangani va10? 3

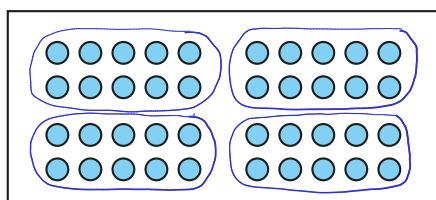
How many 10s? _____

Vangani va1? 0

How many 1s? _____

30

vakhume va _____ van'we va _____

three tens zero onesVangani va10? 4

How many 10s? _____

Vangani va1? 0

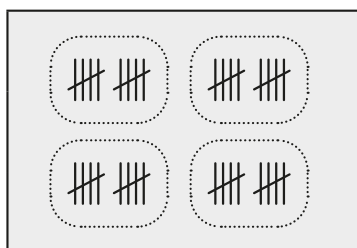
How many 1s? _____

40

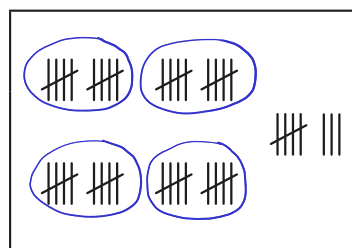
vakhume va _____ van'we va _____

four tens zero ones

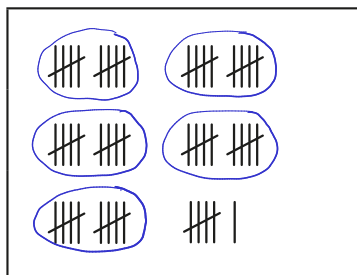
- 3 Bana xirhendzevutana eka mitlawa ya 10. I mani nomboro?
Circle groups of 10. What is the number?



40



48



56

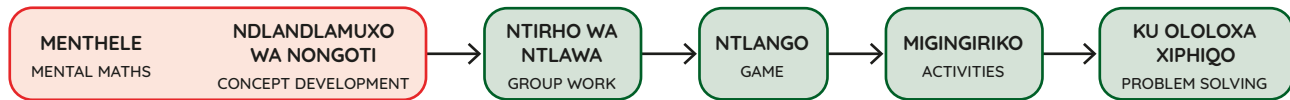
Xana u ni tikhiyubu?
Aka tinomboro u
tirhisa tikhiyubu!
Do you have cubes?
Build the numbers
using cubes!



How many 10s? How many 1s?

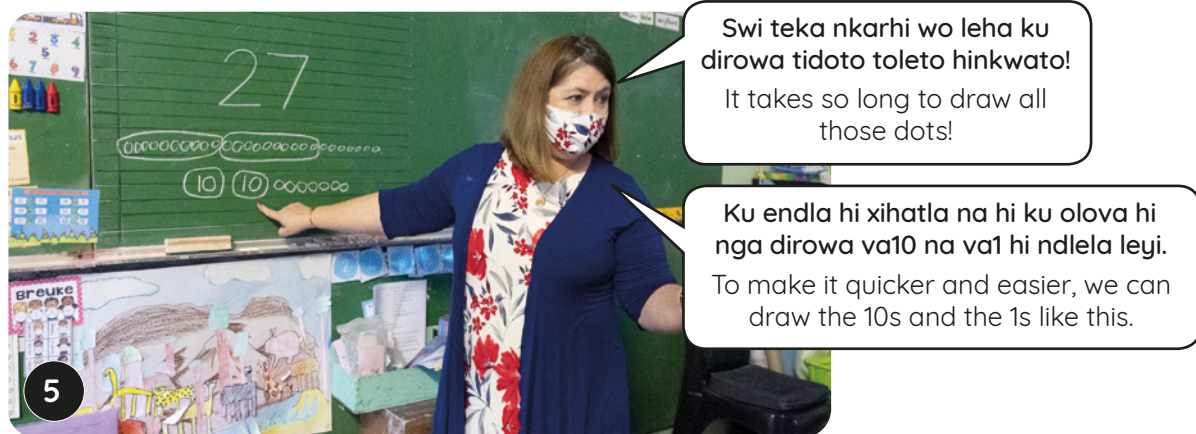
Week 1 • Day 3

7



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Xana i mani nomboro leyi ndzi yi tsaleke exitsalelweni?
What number have I written on the board?



Vuyelela magoza lama nga laha henhla hi ku tirhisa tinomboro to hambana. Khutaza vadyondzi ku vulavula hi tinomboro ta va10 na va1. Tiyisisa leswaku vadyondzi va dirowa vakhume hilaha va kombisiweke hakona, ku ri na ku dirowa khume wa tidoto.

Repeat the steps above using different numbers. Encourage learners to talk about the number of 10s and 1s. Ensure that learners draw the tens as shown, rather than drawing ten dots.

VHIKI 1 • SIKU 4

Va10 na va1

VHIKI • WEEK
1

SIKU 4 • DAY 4

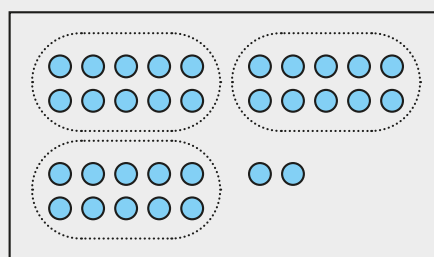
Va10 na va1
10s and 1sMENTHELE
MENTAL MATHSNDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENTNTIRHO WA
NTLAWA
GROUP WORKNTLANGO
GAMEMIGINGIRIKO
ACTIVITIESKU OLOLOXA
XIPHIQO
PROBLEM SOLVING

1 Bana xirhendzevutana eka mitlawa ya 10. I mani nomboro?

Circle groups of 10. What is the number?

Vangani val0?
Vangani val?

How many 10s?
How many 1s?



Vangani val0? 3

How many 10s? 3

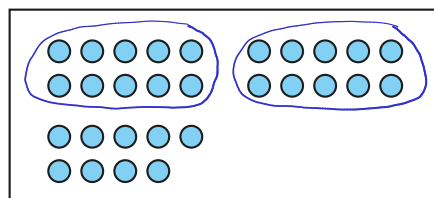
Vangani val? 2

How many 1s? 2

32

vakhume vanharhu van'we vambiri

three tens two ones



Vangani val0? 2

How many 10s? 2

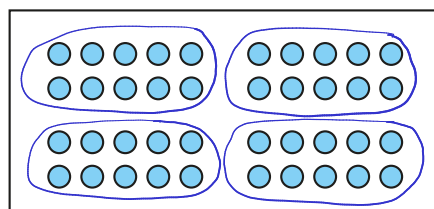
Vangani val? 9

How many 1s? 9

29

vakhume va _____ van'we va _____

two tens nine ones



Vangani val0? 4

How many 10s? 4

Vangani val? 0

How many 1s? 0

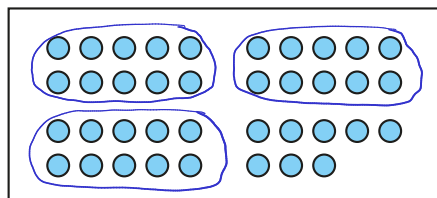
40

vakhume va _____ van'we va _____

four tens zero ones

2 Bana xirhendzevutana eka mitlawa ya 10. I mani nomboro?

Circle groups of 10. What is the number?



Vangani val0? 3

How many 10s? _____

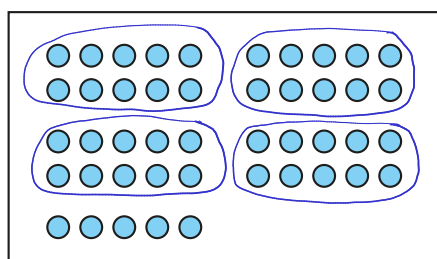
Vangani val? 8

How many 1s? _____

38

vakhume va _____ van'we va _____

three tens eight ones



Vangani val0? 4

How many 10s? _____

Vangani val? 5

How many 1s? _____

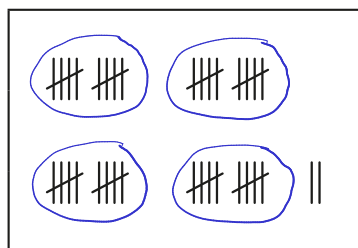
45

vakhume va _____ van'we va _____

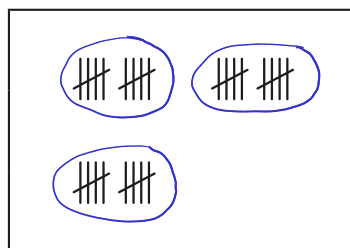
four tens five ones

3 Bana xirhendzevutana eka mitlawa ya 10. I mani nomboro?

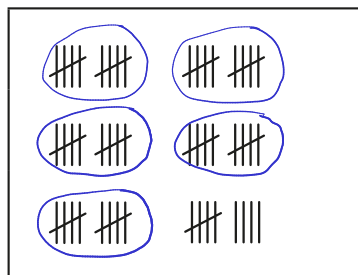
Circle groups of 10. What is the number?



42



30



59

Xana u ni tikhiyubu?
Aka tinomboro u
tirhisa tikhiyubu!

Do you have cubes?
Build the numbers
using cubes!



VHIKI 1 • SIKU 5

Makambelelo na nkatsakanyo



SIKU 5 • DAY 5

Nkatsakanyo
ConsolidationMENTHELE
MENTAL MATHSMAKAMBELELO
ASSESSMENTNTIRHO WA
NTLAWA
GROUP WORKNTLANGO
GAMEMIGINGIRIKO
ACTIVITIESKU OLOLOXA
XIPHIQO
PROBLEM SOLVING

A hi vulavule hi Matematiki!

Let's talk Maths!

Hi Xitsonga hi ri:

Vangani val0?

Vangani val?

Bana xirhendzevutana eka mitlawa ya 10.

I mani nomboro?

Thantlha hi val0 na val.

In English we say:

How many 10s?

How many 1s?

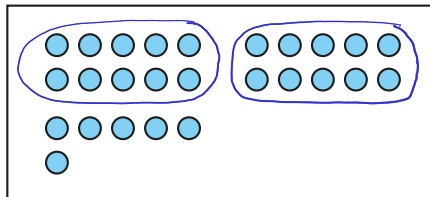
Circle groups of 10.

What is the number?

Break down into 10s and 1s.



I Bana xirhendzevutana eka mitlawa ya 10. I mani nomboro?
Circle groups of 10. What is the number?

Vangani val0? 2

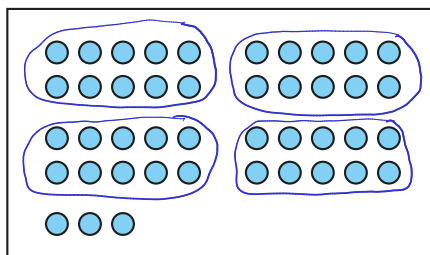
How many 10s? _____

Vangani val? 6

How many 1s? _____

26

vakhume va _____ van'we va _____

two tens six onesVangani val0? 4

How many 10s? _____

Vangani val? 3

How many 1s? _____

43

vakhume va _____ van'we va _____

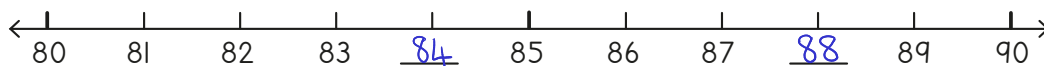
four tens three ones

WEEK 1 • DAY 5

Assessment and consolidation

2 Tata.

Complete.



3 Ololoxa.

Solve.

$82 + 6 = \underline{88}$	$85 + 5 = \underline{90}$	$83 + 6 = \underline{89}$
$89 - 4 = \underline{85}$	$90 - 6 = \underline{84}$	$87 - 5 = \underline{82}$

4



I vana vangani?

How many children?

6

Mahlo mangani?

How many eyes?

12

5

Vana i 4, mahlo mangani?

4 children, how many eyes?

8

Vana i 5, matsolo mangani?

5 children, how many knees?

10

Vana i 6, tindleve tingani?

6 children, how many ears?

12

Vana i 10, milenge yingani?

10 children, how many feet?

20

6 Khakhuleta.

Calculate.

$2 \times 3 = \underline{6}$	$2 \times 5 = \underline{10}$	$2 \times 6 = \underline{12}$	$2 \times 2 = \underline{4}$
------------------------------	-------------------------------	-------------------------------	------------------------------

7 Khakhuleta.

Calculate.

Hafu:	6	3	7	$3\frac{1}{2}$
Halve:				
Mbirhahata:	6	12	7	14
Double:				

Consolidation

Week 1 • Day 5

11

Ku dirowa va10

		Switirhisiwa
Menthele: Ku xaxameta tinomboro kufikela ka 50		ku hava
Ntlango: BANA MAVOKO, bana majota eka tinomboro!, Ntlango: Tlula, kandziya tinomboro		ku hava
		
Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Va10 na va1	LAB
2	Tinomboro kufikela ka 100	LAB, Xikwere xa 100
3	Tinomboro kufikela ka 100	LAB, makhadi ya fuladi
4	Va10 na va1	LAB, makhadi ya fuladi
5	Nkatsakanyo na makambelelo yo dyondza	LAB

Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:	✓
tirhisa swifaniso swa tinomboro na matafula ya tinomboro ku yimela tinomboro tanihi va10 na va1.	
tirhisa swivulwa swa tinomboro ku komba tinomboro tanihi va10 na va1.	
kombisa tinomboro hi ku tirhisa makhadi ya nkoka wa ndhawu.	

Makambelelo (languta eka tipheji ta le ndzhaku ka xiletelo lexi)

Makambelelo yo tsariwa: Tinomboro, Tioparexini na Vuxaka – Va10 na va1

Drawing 10s

	Resources
Mental Maths: Ordering numbers to 50	none
Game: CLAP and click numbers!, Jump and step numbers	none



Day	Lesson activity	Lesson resources
1	10s and 1s	LAB
2	Numbers to 100	LAB, 100 square
3	Numbers to 100	LAB, flard cards
4	10s and 1s	LAB, flard cards
5	Consolidation and assessment for learning	LAB

After this week the learner should be able to:	✓
use number pictures and number tables to represent numbers as 10s and 1s.	
use number sentences to show numbers as 10s and 1s.	
represent numbers using place value cards.	

Assessment (see back pages of this guide)

Written assessment: Numbers, Operations and Relationships – 10s and 1s

Ku dirowa va10

Menthele

Vhiki leri hi kongomisa eka ku landzelelanisa tinomboro ku suka eka leyitsongo swinene ku ya eka leyikulu swinene, na kusuka eka leyikulu swinene ku ya eka leyitsongo swinene. Vadyondzi va fanele va kota ku tiva nomboro leyikulu na leyitsongo, na ku xaxameta tinomboro hi mfanelo.

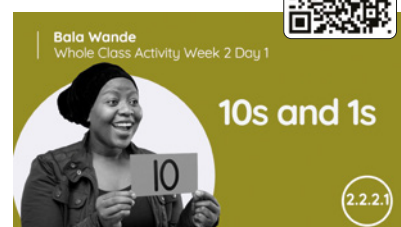
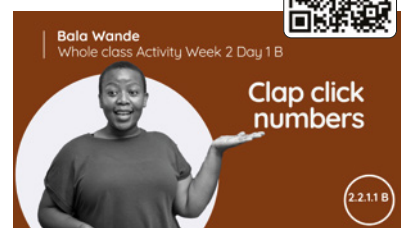
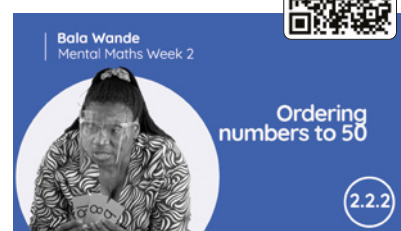
Ntlango

Eka ntlango wa vhiki leri, vitanela tinomboro eka tlilasi. Vadyondzi va fanele va yingisela hi vukheta kutani va phokotela eka khume un'wana na un'wana na ku ba jota eka va1 van'wana na van'wana eka nomboro leyi u yi vitanelaka. Leswi swi ta va pfuna ku tiva va10 na va1 eka tinomboro na ku vona tinomboro tanihi loko ti endlwa hi va10 na va1. Eka ntlango wa vumbirhi, mudyondzi un'wana u vitanela nomboro. Kutani un'wanyana a tlula vakhume a kandziya van'we. Khutaza vadyondzi ku wu tlanga na le kaya.

Ndlandlamuxo wa nongoti

Vhiki leri hi ya emahlweni na ku kongomisa eka ku tiva va10 na va1 eka tinomboro ta tidijiti timbirhi na ku yisa emahlweni kusuka eka swifaniso swa tinomboro na matafula ya tinomboro ku ya eka swidirowiwa swa 2-D ku ya eka makhadi ya fuladi. Ku fanele ku tekiwa nkarhi eka nkatsakanyo wa ntwisiso wa vadyondzi hi nkoka wa ndhawu ku va pfuna leswaku va kota ku ololoxa swiphiso swo khakhuleta eka matematiki. Vadyondzi va fanele ku antswisa ntwisiso lowu tiyeke wa nkoka wa ndhawu naswona swi lava ku titoloveta swinene ku tlhantlha na ku aka tinomboro ta tidijiti timbirhi:

- tirhisa swifaniso swa tinomboro na matafula ya tinomboro ku yimela tinomboro tanihi va10 na va1.
- tirhisa swivulwa swa tinomboro ku komba tinomboro tanihi va10 na va1.
- kombisa tinomboro hi ku tirhisa makhadi ya nkoka wa ndhawu (makhadi ya fuladi).



Leswi languteriwaka vhiki leri

- Kongomisa eka ku yisa emahlweni ku ya eka swianakanyiwa leswi yimelaka va10 na va1. Ku tirhisa makhadi ya nkoka wa ndhawu i xiphemu xa nkoka lexi faneleke xa nhluvukiso wa nongoti wa nkoka wa ndhawu.
- Khutaza vadyondzi ku vula hi nomu swivulwa swa vona swa tinomboro leswaku va ta kota ku engetela ntwisiso wa vona wa sisiteme ya va10 na va1.

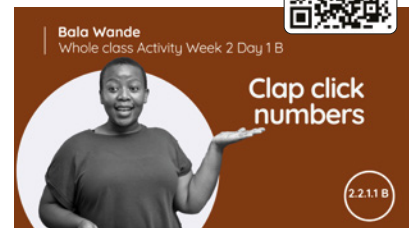
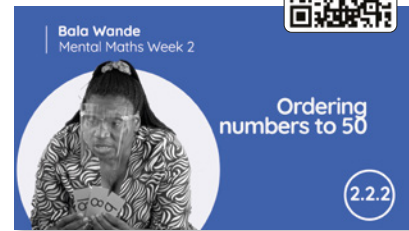
Drawing 10s

Mental Maths

This week we focus on sequencing numbers from smallest to biggest, and from biggest to smallest. Learners need to be able to identify the bigger and smaller number, and to arrange numbers in order.

Games

In this week's game you call out numbers to the class. The learners must listen carefully and then clap for each ten and click for each one in the number that you call. This will help them identify the 10s and the 1s in numbers and to see numbers as made of 10s and 1s. In the second game, one learner calls a number. The other learner jumps the tens and steps the ones. Encourage learners to also play at home.



Concept development

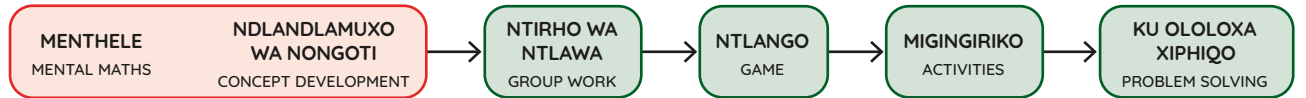
This week we continue to focus on identifying 10s and 1s in two-digit numbers with the progression from number pictures and number tables to 2-D drawings to flard cards. Time needs to be spent on consolidating learners' understanding of place value in order to assist them in solving mathematical calculations efficiently. Learners need to establish a sound understanding of place value and so need much practice in the breaking down and building up of two-digit numbers. In our work on 10s and 1s, we will focus on:

- using number pictures and number tables to represent numbers as 10s and 1s.
- using number sentences to show numbers as 10s and 1s.
- representing numbers using place value cards (flard cards).



What to look out for this week

- Focus on the progression to a more abstract representation of 10s and 1s. The use of place value cards is an important part of the necessary conceptual development of place value.
- Encourage learners to verbalise their number sentences so that they can reinforce their understanding of the system of 10s and 1s.



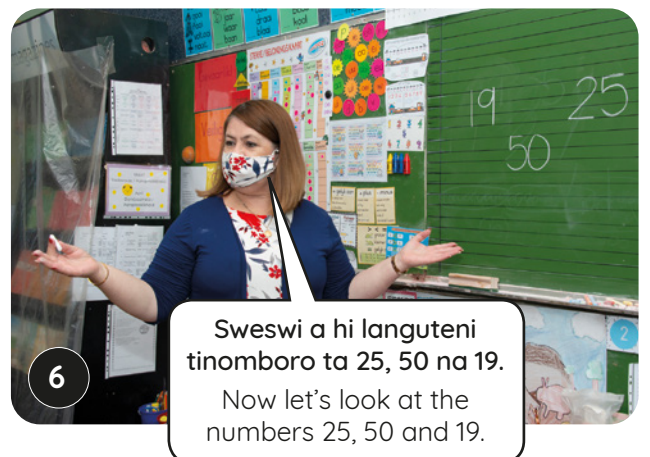
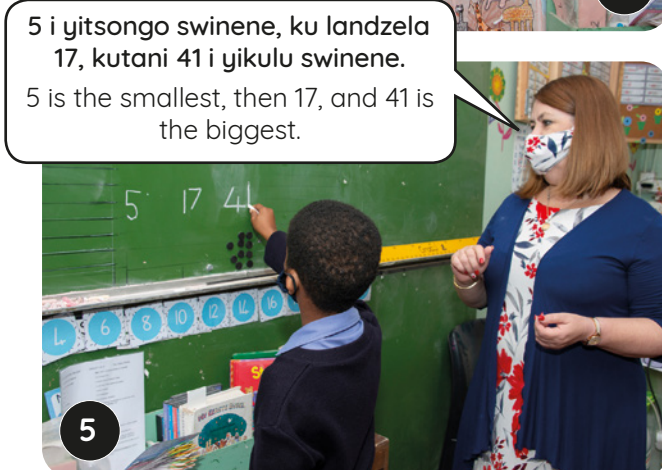
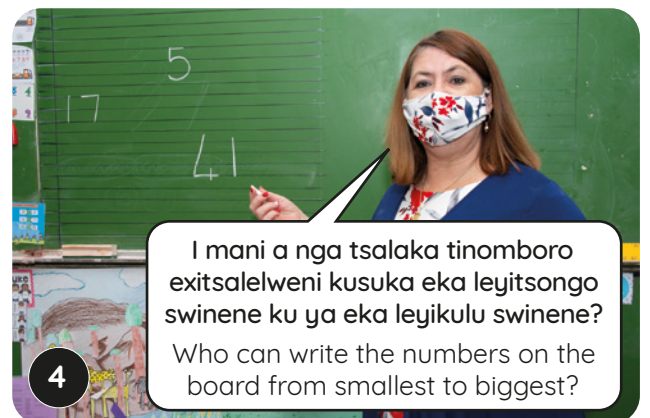
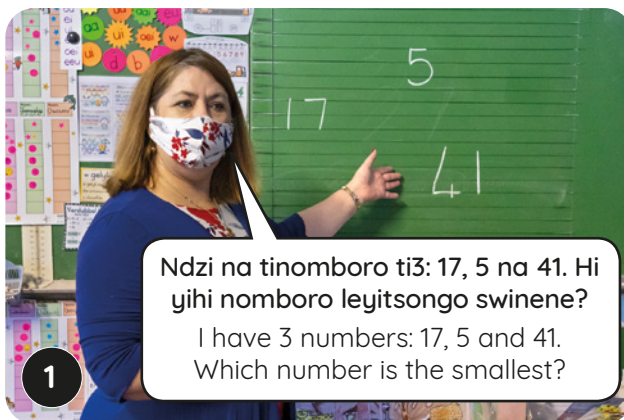
MENTHELE | MENTAL MATHS

Pfumelela nkarhi wo hlayanyana wo xaxameta tinomboro – leyitsongo swinene kuya eka leyikulu swinene kumbe leyikulu swinene kuya eka leyitsongo swinene.

Allow multiple opportunities for ordering numbers – smallest to biggest or biggest to smallest.

Tsundzuka ku kamba siku na ku maka rijisitara siku rin’wana na rin’wana.

Remember to check the date and mark the register every day.



WEEK 2 • DAY 1

10s and 1s

Migingiriko ya mfuwo • Enrichment activities

Siku 1 • Day 1

Vangani val0? Vangani val?
How many 10s? How many 1s?

43 ____

19 ____

62 ____

29 ____

56 ____

11 ____

38 ____

74 ____

85 ____

99 ____

Siku 2 • Day 2

Vangani val0? Vangani val?
How many 10s? How many 1s?

66 ____

23 ____

91 ____

58 ____

49 ____

13 ____

21 ____

34 ____

77 ____

82 ____

Siku 3 • Day 3

Vangani val0? Vangani val?
How many 10s? How many 1s?

93 ____

25 ____

79 ____

31 ____

88 ____

67 ____

15 ____

46 ____

52 ____

36 ____

Siku 4 • Day 4

Vangani val0? Vangani val?
How many 10s? How many 1s?

16 ____

85 ____

39 ____

27 ____

71 ____

94 ____

44 ____

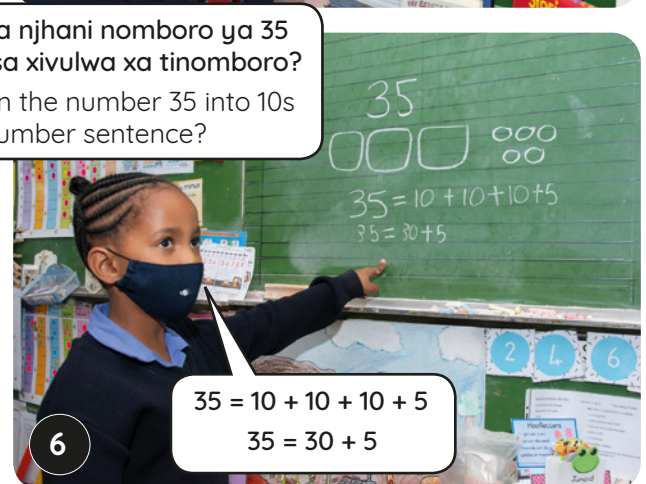
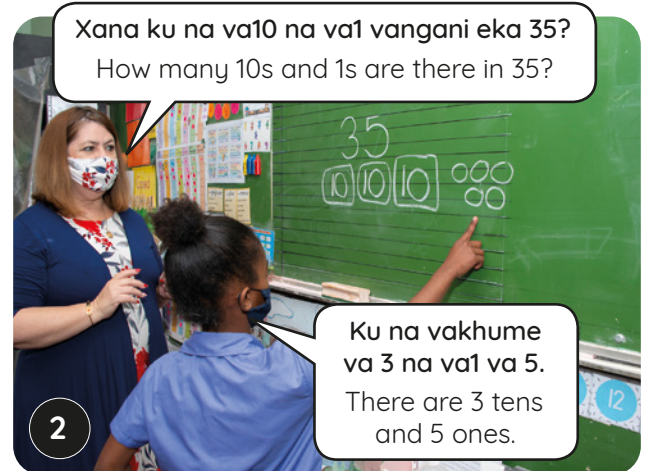
12 ____

68 ____

55 ____



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



Vugelela magoza lama nga laha henhla hi ku tirhisa tinomboro to hambana. Khutaza vadyondzi ku vulavula hi nhlayo ya va10 na va1 lava nga na vona. Tiyisisa leswaku vadyondzi va hetisa tafula kutani va tsala xivulwa xa tinomboro ku endlela leswaku va titoloveta ku tlhantlha tinomboro hi va10 na va1.

Repeat the steps above using different numbers. Encourage learners to talk about the number of 10s and 1s. Ensure that learners complete the table and write the number sentence in order to practise breaking down numbers into 10s and 1s.



SIKU 1 • DAY 1

Va10 na va1

10s and 1s

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

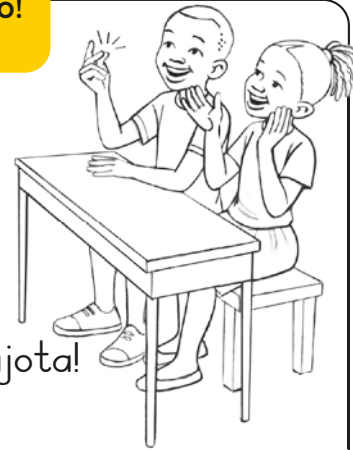
MISINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHISO
PROBLEM SOLVING

Ntlango: BANA MAVOKO, bana majota eka tinomboro!

Game: CLAP and click numbers!

- Mudyondzisi wa wena u vita nomboro.
Your teacher calls a number.
- BANA MAVOKO eka khume hi un'we, bana majota eka n'we hi un'we.
CLAP for each ten, click for each one.
- 32: BANA MAVOKO, BANA MAVOKO, BANA MAVOKO, bana majota, bana majota!
32: CLAP CLAP CLAP click click!
- Vakhume vanharhu na van'we va2.
Three tens and 2 ones.
- BANA MAVOKO, bana majota eka tinomboro leti mudyondzisi wa wena a ti vitaka!
CLAP click the numbers your teacher calls!



Loko ndzi hlangana ni nomboro, ndza vutisa, "I vakhume vangani? I van'we vangani?"

When I meet a number, I ask, "How many tens? How many ones?"



vakhume vanharhu na mune thirty-four	vakhume vanharhu na mune thirty-four	vakhume vanharhu na mune thirty-four



Loko ndzi dirowa tinomboro, 10 ndzi n'wi dirowisa xileswi: 10

Kutani, 34 ndzi n'wi dirowisa xileswi:

When I draw numbers, I draw a 10 like this: 10

So, I draw 34 like this:

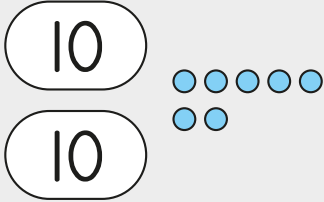
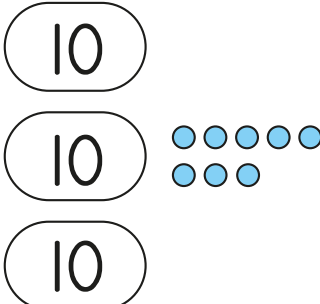
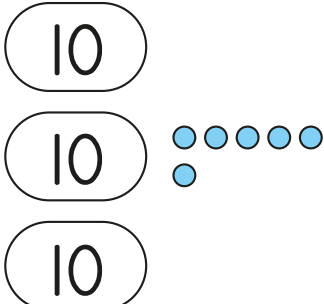
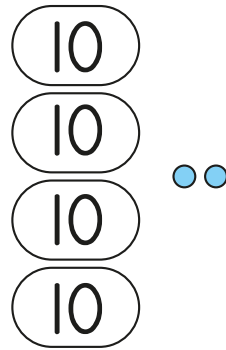
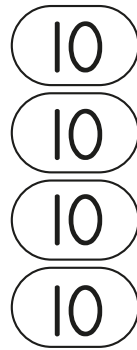
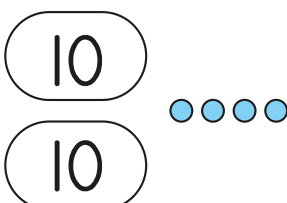
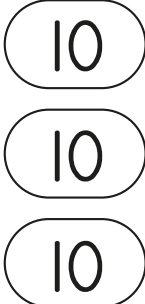


Kusukela sweswi, u nga va dirowi van'we hinkwavo. Tirhisa 10 ku komba 10.

From now on, do not draw all the ones. Use a 10 to show 10.

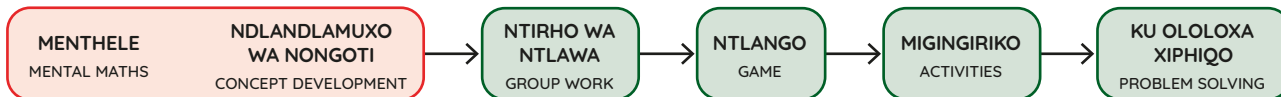
I mani nomboro?

What is the number?

 <table border="1"> <thead> <tr> <th>10:</th> <th>1:</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>7</td> </tr> <tr> <td colspan="2">27</td> </tr> </tbody> </table>	10:	1:	2	7	27		 <table border="1"> <thead> <tr> <th>10:</th> <th>1:</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>8</td> </tr> <tr> <td colspan="2">38</td> </tr> </tbody> </table>	10:	1:	3	8	38	
10:	1:												
2	7												
27													
10:	1:												
3	8												
38													
 <table border="1"> <thead> <tr> <th>10:</th> <th>1:</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>6</td> </tr> <tr> <td colspan="2">36</td> </tr> </tbody> </table>	10:	1:	3	6	36		 <table border="1"> <thead> <tr> <th>10:</th> <th>1:</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>7</td> </tr> <tr> <td colspan="2">17</td> </tr> </tbody> </table>	10:	1:	1	7	17	
10:	1:												
3	6												
36													
10:	1:												
1	7												
17													
 <table border="1"> <thead> <tr> <th>10:</th> <th>1:</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>2</td> </tr> <tr> <td colspan="2">42</td> </tr> </tbody> </table>	10:	1:	4	2	42		 <table border="1"> <thead> <tr> <th>10:</th> <th>1:</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>0</td> </tr> <tr> <td colspan="2">40</td> </tr> </tbody> </table>	10:	1:	4	0	40	
10:	1:												
4	2												
42													
10:	1:												
4	0												
40													
 <table border="1"> <thead> <tr> <th>10:</th> <th>1:</th> </tr> </thead> <tbody> <tr> <td>2</td> <td>4</td> </tr> <tr> <td colspan="2">24</td> </tr> </tbody> </table>	10:	1:	2	4	24		 <table border="1"> <thead> <tr> <th>10:</th> <th>1:</th> </tr> </thead> <tbody> <tr> <td>3</td> <td>0</td> </tr> <tr> <td colspan="2">30</td> </tr> </tbody> </table>	10:	1:	3	0	30	
10:	1:												
2	4												
24													
10:	1:												
3	0												
30													

WEEK 2 • DAY 2

Numbers to 100



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

1

Kuma nomboro leyi nga na khume u1 na va1 va 8 eka swikwere swa n'wina swa 100.
Find the number that has 1 ten and 8 ones on your 100 square.

2

18!

3

Xana u nga tsala xivulwa xa tinomboro ku kombisa va10 na va1 eka 18?
Can you write a number sentence to show the 10s and 1s in 18?

4

$10 + 8 = 18$

5

Sweswi kuma nomboro leyi nga na vakhume va 4 na va1 va2.
Now find a number that has 4 tens and 2 ones.

6

42!

7

Xana hi xihl xivulwa xa tinomboro?
What is the number sentence?

$10 + 10 + 10 + 10 + 2 = 42$
 $40 + 2 = 42$

Vuyelela magoza lama nga laha henhla hi ku tirhisa tinomboro to hambana. Khutaza vadyondzi ku tiva hi xihatla tinomboro leti nga na va10 na va1 vo hambanahambana. Pfumelela vadyondzi ku va na nkarhi wo tsala swivulwa swa tinomboro swo tala ku hlulukisa vuswikoti bya vona byo twisisa nongoti na maendlelo.

Repeat the steps above using different numbers. Encourage learners to identify numbers with different 10s and 1s quickly. Give them opportunities to write many number sentences to develop their conceptual and procedural understanding.



SIKU 2 • DAY 2

Tinomboro kufikela ka 100

Numbers to 100

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

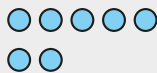
NTLANGO
GAME

MINGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHISO
PROBLEM SOLVING

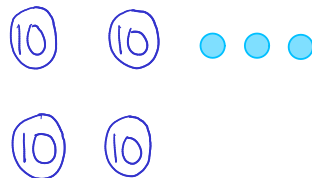
- 1 Dirowa (10) ku komba 10. Dirowa (1) ku komba 1.
Draw (10) to show 10. Draw (1) to show 1.

27



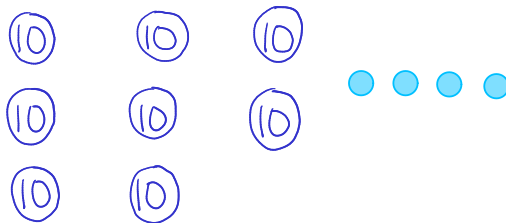
$$27 = 10 + 10 + 7$$

43



$$43 = 10 + 10 + 10 + 10 + 3$$

84

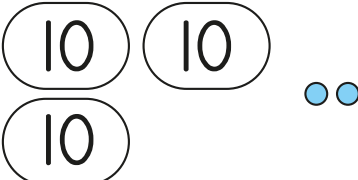


$$84 = 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 4$$

2 I mani nomboro?

What is the number?

	<table border="1"> <tr> <th>10:</th> <th>1:</th> </tr> <tr> <td>4</td> <td>6</td> </tr> </table>	10:	1:	4	6	 46
10:	1:					
4	6					
$46 = 10 + 10 + 10 + 10 + 6$						
$46 = 40 + 6$						

	<table border="1"> <tr> <th>10:</th> <th>1:</th> </tr> <tr> <td>3</td> <td>2</td> </tr> </table>	10:	1:	3	2	 32
10:	1:					
3	2					
$32 = 10 + 10 + 10 + 2$						
$32 = 30 + 2$						

	<table border="1"> <tr> <th>10:</th> <th>1:</th> </tr> <tr> <td>4</td> <td>7</td> </tr> </table>	10:	1:	4	7	 47
10:	1:					
4	7					
$47 = 10 + 10 + 10 + 10 + 7$						
$47 = 40 + 7$						

3 Tlhantlha hi val0 na val.

Break down into 10s and 1s.



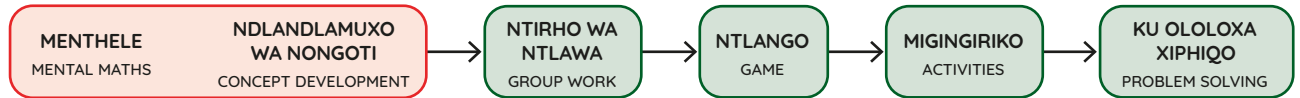
$34 = 10 + 10 + 10 + 4$
$34 = 30 + 4$

$26 = 10 + 10 + 6$
$26 = 20 + 6$

$42 = 10 + 10 + 10 + 10 + 2$
$42 = 40 + 2$

$58 = 10 + 10 + 10 + 10 + 10 + 8$
$58 = 50 + 8$

Tinomboro kufikela ka 100



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Xana i mani nomboro legi ndzi yi tsaleke exitsalelweni?
What number have I written on the board?



Dirowa va10 na va1 eka 47.
Draw the 10s and 1s in 47.



Ku na vakhume va 4 na va1 va 7.
There are 4 tens and 7 ones.

Xaxameta makhadi ya va10 na va1
hi nxaxamelo kusuka eka leyitsongo
swinene ku ya eka leyikulu swinene.
Arrange the 10s and 1s cards in order
from smallest to biggest.

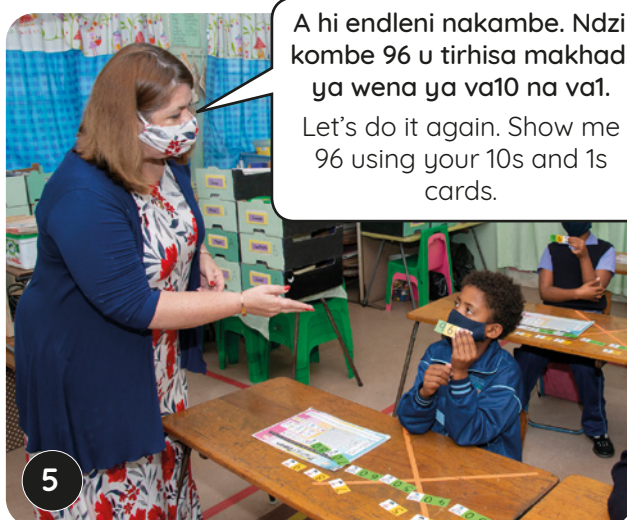


1, 2, 3, 4, 5, 6, 7, 8, 9
10, 20, 30, 40, 50, 60, 70, 80, 90

Ndzi kombe 47 u tirhisa makhadi ya
wena ya va10 na va1.
Show me 47 using your 10s and 1s cards.



A hi endleni nakambe. Ndzi
kombe 96 u tirhisa makhadi
ya wena ya va10 na va1.
Let's do it again. Show me
96 using your 10s and 1s
cards.



Vuyelela magoza lama nga laha henhla hi
ku tirhisa tinomboro to hambana. Khutaza
vadyondzi ku vulavula hi nhlayo ya va10 na
va1. Tiyisisa leswaku va komba tinomboro
hi mfanelo va tirhisa makhadi ya vona ya
fuladi.

Repeat the steps above using different
numbers. Encourage learners to talk about
the number of 10s and 1s. Ensure that learners
show the numbers correctly using their flard
cards.

WEEK
2

SIKU 3 • DAY 3

Tinomboro kufikela ka 100
Numbers to 100

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

Ntlango: Tlula, kandziya tinomboro
Game: Jump and step numbers

10 = tlula
jump

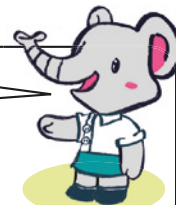
● = kandziya
step

- Munghana wa wena u vita nomboro.
Your friend calls a number.
- Tlula vakhume.
Jump the tens.
- Kandziya van'we.
Step the ones.
- Tlaga ekaya.
Play at home.



Ringeta leswi loko u ri ehandle.

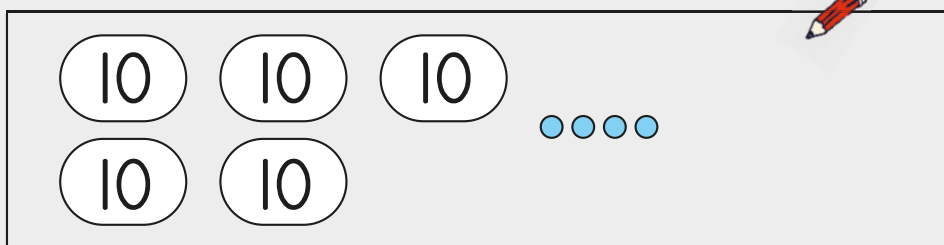
Try this when you are outside.



1 Dirowa 10 ku komba 10. Dirowa ● ku komba 1.

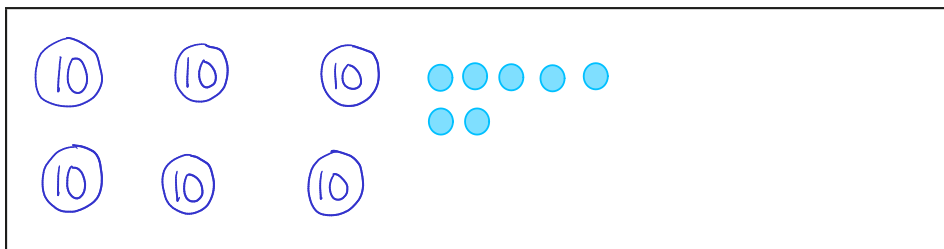
Draw 10 to show 10. Draw ● to show 1.

54



$$54 = 10 + 10 + 10 + 10 + 10 + 4$$

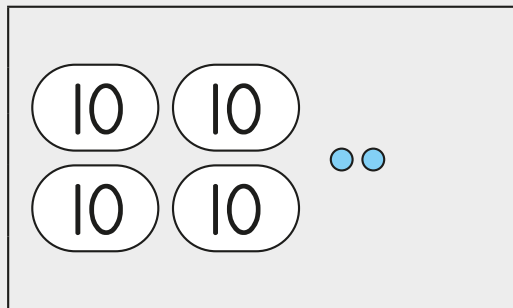
67



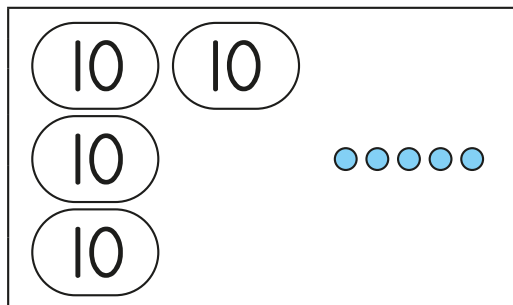
$$67 = 10 + 10 + 10 + 10 + 10 + 10 + 7$$

2 I mani nomboro?

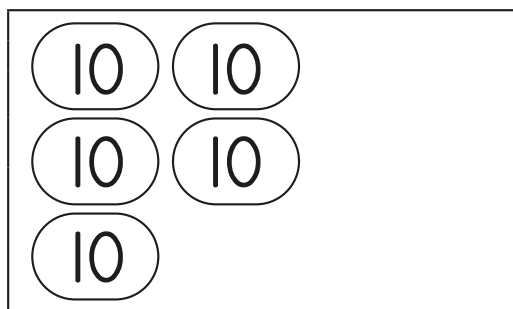
What is the number?



10:	1:	42
4	2	
$42 = 10 + 10 + 10 + 10 + 2$		
$42 = 40 + 2$		



10:	1:	45
4	5	
$45 = 10 + 10 + 10 + 10 + 5$		
$45 = 40 + 5$		



10:	1:	50
5	0	
$50 = 10 + 10 + 10 + 10 + 10$		
$50 = 50 + 0$		

3 Tlhantlha hi val0 na val.

Break down into 10s and 1s.

$$26 = 10 + 10 + 6$$

$$26 = 20 + 6$$

$$57 = 10 + 10 + 10 + 10 + 10 + 7$$

$$57 = 50 + 7$$

$$42 = 10 + 10 + 10 + 10 + 2$$

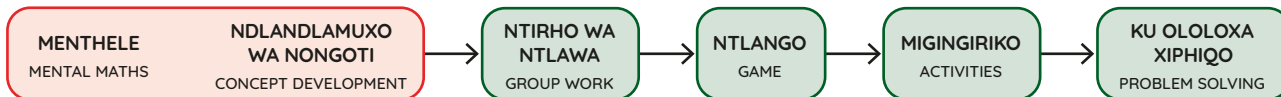
$$42 = 40 + 2$$

$$35 = 10 + 10 + 10 + 5$$

$$35 = 30 + 5$$

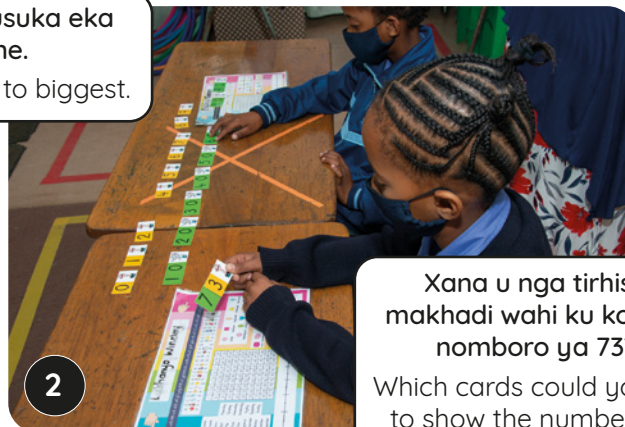
WEEK 2 • DAY 4

10s and 1s

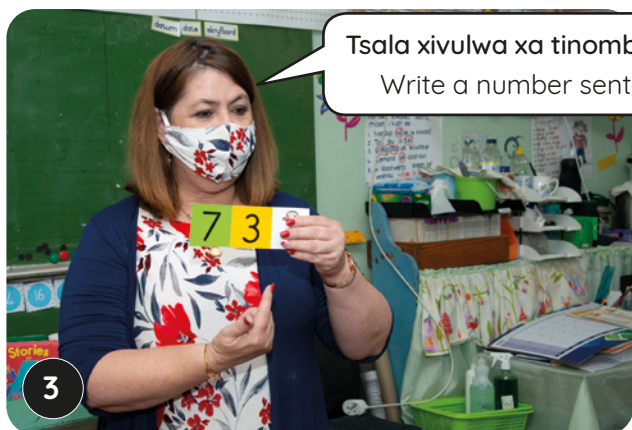


NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

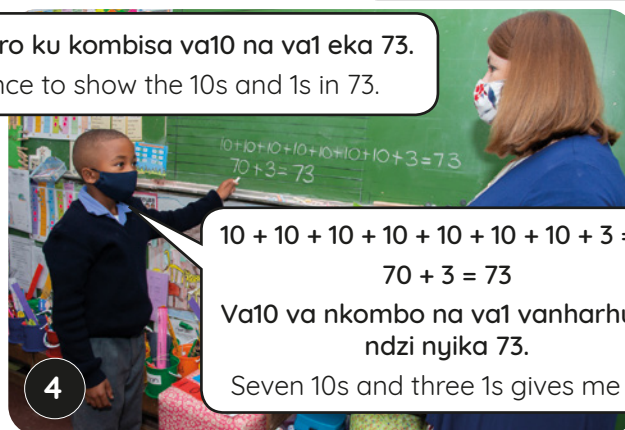
Xaxameta makhadi ya va10 na va1 hi nxaxamelo kusuka eka leyitsongo swinene ku ya eka leyikulu swinene.
Arrange your 10s and 1s cards in order from smallest to biggest.



Xana u nga tirhisa makhadi wahi ku komba nomboro ya 73?
Which cards could you use to show the number 73?



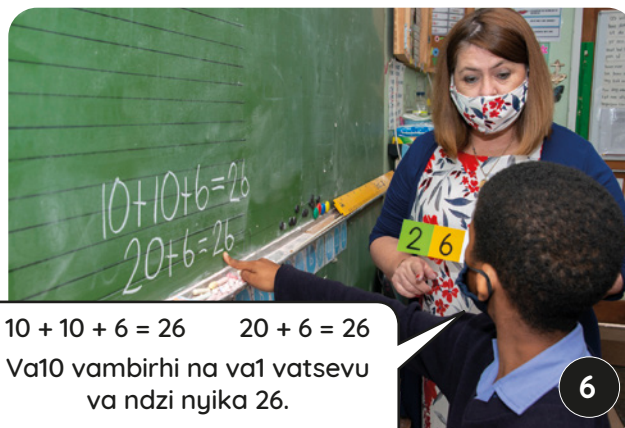
Tsala xivulwa xa tinomboro ku kombisa va10 na va1 eka 73.
Write a number sentence to show the 10s and 1s in 73.



$10 + 10 + 10 + 10 + 10 + 10 + 10 + 3 = 73$
 $70 + 3 = 73$
Va10 va nkombo na va1 vanharhu va ndzi nyika 73.
Seven 10s and three 1s gives me 73.



Sweswi a hi ringeteni nomboro yin'wana.
Now let's try another number.



$10 + 10 + 6 = 26$ $20 + 6 = 26$
Va10 vambirhi na va1 vatsevu va ndzi nyika 26.
Two 10s and six 1s gives me 26.

Vuyelela magoza lama nga laha henhla hi ku tirhisa tinomboro to hambana. Khutaza vadyondzi ku komba tinomboro hi mfanelo hi ku tirhisa makhadi ya vona ya fuladi na ku vulavula hi swivulwa swa tinomboro leswi va swi tsalaka.

Repeat the steps above using different numbers. Encourage learners to show the numbers correctly using their flard cards and to talk about the number sentences they write.

VHIKI • WEEK
2

SIKU 4 • DAY 4

Va10 na va1
10s and 1s

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MINGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING



Ndzi nga aka
tinomboro hi
tibuloko!

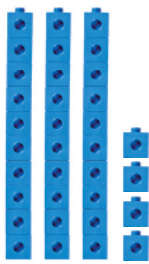
I can build numbers
with blocks!

Ndzi nga dirowa
swifaniso swa
tinomboro.

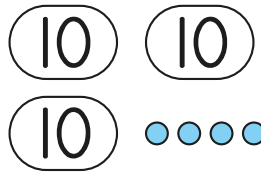
I can draw
number pictures.

Nakambe ndzi nga komba
tinomboro ndzi tirhisa
makhadi ya va10 na va1.

I can also show numbers
using 10s and 1s cards.



vakhume vanharhu
na mune
thirty-four



vakhume vanharhu
na mune
thirty-four



vakhume vanharhu
na mune
thirty-four

10 20 30 40 50
60 70 80 90

1 2 3 4 5
6 7 8 9

1 I makhadi wahi ya va10 na va1 ma endlaka tinomboro leti?

Which 10s and 1s cards make these numbers?

39

30	9	39
----	---	----

16

10	6	16
----	---	----

27

20	7	27
----	---	----

34

30	4	34
----	---	----

57

50	7	57
----	---	----

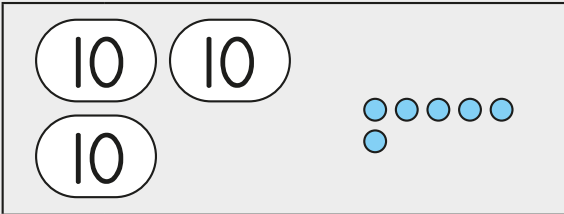
63

60	3	63
----	---	----

10s and 1s

- 2 Dirowa nomboro. Yi kombe hi makhadi ya val0 na val. Tsala swivulwa swa tinomboro.

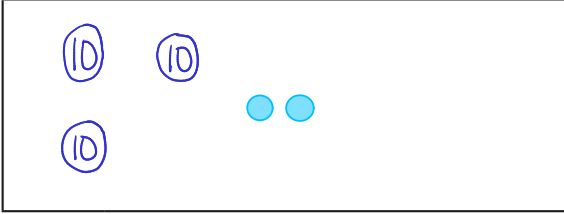
Draw the number. Show it with 10s and 1s cards. Write the number sentences.



$36 = 10 + 10 + 10 + 6$



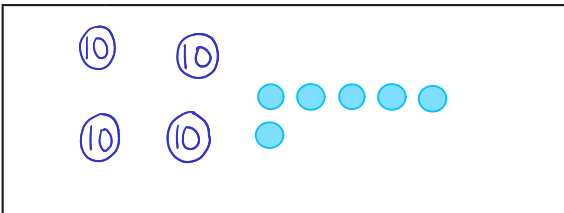
$36 = 30 + 6$



$32 = 10 + 10 + 10 + 2$



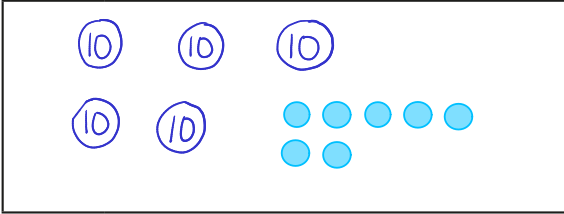
$32 = 30 + 2$



$46 = 10 + 10 + 10 + 10 + 6$



$46 = 40 + 6$



$57 = 10 + 10 + 10 + 10 + 10 + 7$



$57 = 50 + 7$



SIKU 5 • DAY 5

Nkatsakanyo Consolidation

MENTHELE
MENTAL MATHS

MAKAMBELELO
ASSESSMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

A hi vulavule hi Matematiki!

Let's talk Maths!

Hi Xinghezi hi ri:

Bana majota eka 1 hi un'we.

Tlula 10 hi un'we.

Kandziya 1 hi un'we.

Nkoka wa 3 eka 34 i 30.

Nkoka wa 4 eka 34 i 4.

Tlhantlha val0 na val.

In English we say:

Snap each 1.

Jump each 10.

Step each 1.

The value of the 3 in 34 is 30.

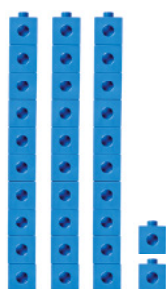
The value of the 4 in 34 is 4.

Break down into 10s and 1s.



1 I mani nomboro?

What is the number?



Vangani val0? 3

How many 10s?

Vangani val? 2

How many 1s?

$$30 + 2 = 32$$

10	● ● ● ●	10:	1:	54
10	10	5	4	

2 Khakhuleta.

Calculate.

$10 + \underline{5} = 15$	$10 + \underline{3} = 13$	$10 + \underline{8} = 18$
---------------------------	---------------------------	---------------------------

3 Tlhantlha hi val0 na val.

Break down into 10s and 1s.

$14 = \underline{10} + \underline{4}$	$19 = \underline{10} + \underline{9}$	$11 = \underline{10} + \underline{1}$
---------------------------------------	---------------------------------------	---------------------------------------

Assessment and consolidation

4 Ololoxa.

Solve.

$73 + 4 = \underline{77}$	$32 + 6 = \underline{38}$	$28 + 2 = \underline{30}$
$59 - 5 = \underline{54}$	$38 - 7 = \underline{31}$	$43 - 2 = \underline{41}$
$39 + 10 = \underline{49}$	$56 + 10 = \underline{66}$	$84 + 10 = \underline{94}$
$69 + 10 = \underline{79}$	$17 + 10 = \underline{27}$	$54 + 10 = \underline{64}$

5

	Mavoko mangani? How many hands?	6
	Tintiho tingani? How many fingers?	30

6

Mavoko i 3, tintiho tingani? 3 hands, how many fingers?	15	Milenge i 5, swikunwana swingani? 5 feet, how many toes?	25
Mavoko i 7, tintiho tingani? 7 hands, how many fingers?	35	Milenge i 10, swikunwana swingani? 10 feet, how many toes?	50

7 Khakhuleta.

Calculate.

$5 \times 2 = \underline{10}$	$5 \times 3 = \underline{15}$	$5 \times 4 = \underline{20}$	$5 \times 5 = \underline{25}$
-------------------------------	-------------------------------	-------------------------------	-------------------------------

8 Khakhuleta.

Calculate.

Hafu: Halve:	8	4	9	$4\frac{1}{2}$
Mbirhihata: Double:	8	16	9	18

Ku hlanganisa na ku susa kufikela ka 100

		Switirhisiwa
Menthele: Ndzi nyike leyikulu eka; ndzi nyike leyitsongo eka.		xikwere xa 100
Ntlango: 1, 2, 3, komba! – Ku hlanganisa		ku hava
		
Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Ku hlanganisa va10	LAB, tibuloko ta multifix
2	Ku susa va10	LAB, tibuloko ta multifix
3	Ku hlanganisa va1 eka tinomboro letikulu	LAB, ndzhati wa tinomboro wa 0-20, ndzhati wa tinomboro lowu nga hava nchumu
4	Ku susa va1 eka tinomboro letikulu	LAB, ndzhati wa tinomboro wa 0-20, ndzhati wa tinomboro lowu nga hava nchumu
5	Nkatsakanyo na makambelelo yo dyondza	LAB

Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:	✓
lemuka ku fana exikarhi ka ku hlanganisa na ku susa va1 na ku hlanganisa na ku susa vakhume.	
tirhisa ndzhati wa tinomboro ku hlanganisa va1 swiya eka nomboro ya tidijiti timbirhi handle ko tlulela eka vakhume.	
tirhisa ndzhati wa tinomboro ku susa va1 kusuka eka nomboro ya tidijiti timbirhi handle ko tlulela eka vakhume.	

Makambelelo (languta eka tipheji ta le ndzhaku ka xiletelo lexi)

Makambelelo yo tsariwa: Tinomboro, Tioparexini na Vuxaka – Ku hlanganisa na ku susa

Makambelelo ya swanomo na swo endla: Tinomboro, Tioparexini na Vuxaka: Xiya vadyondzi ku kambela vuswikoti bya vona byo kota ku kombisa tinomboro, ku hlanganisa na ku susa.

Adding and subtracting to 100

		Resources
Mental Maths: Give me more than; give me less than.		100 square
Game: 1, 2, 3, show! – addition		none
		
Day	Lesson activity	Lesson resources
1	Adding 10s	LAB, multifix blocks
2	Subtracting 10s	LAB, multifix blocks
3	Adding 1s in bigger numbers	LAB, 0–20 number line, blank number line
4	Subtracting 1s in bigger numbers	LAB, 0–20 number line, blank number line
5	Consolidation and assessment for learning	LAB

After this week the learner should be able to:	✓
recognise the similarities between adding and subtracting ones and adding and subtracting tens.	
use a number line to add ones to two-digit numbers without bridging the ten.	
use a number line to subtract ones from two-digit numbers without bridging the ten.	

Assessment (see back pages of this guide)

Written assessment: Numbers, Operations and Relationships – Addition and subtraction

Oral and practical assessment: Numbers, Operations and Relationships – Observe learners to assess their ability to represent numbers, add and subtract.

Ku hlanganisa na ku susa kufikela ka 100

Menthele

Vhiki leri hi kongomisa eka milongoti ya yikulu eka na yitsongo eka eka menthele. Mudyondzisi u ta kombetela tinomboro eka xikwere xa 100 kutani a nyika vadyondzi nkarhi wo tiva tinomboro leti nga tikulu na ku va titsongo hi 5 na leti nga tikulu na ku va titsongo hi 10. Ku tirhisa Xikwere xa 100 swi pfumelela vadyondzi ku kota ku tiva tinomboro ta 1 kufikela eka 50. Khutaza vadyondzi ku nyika tinhlamulo hi xihatla ku endlela ku hluvukisa vuswikoti bya vona byo tsundzuka tinomboro.

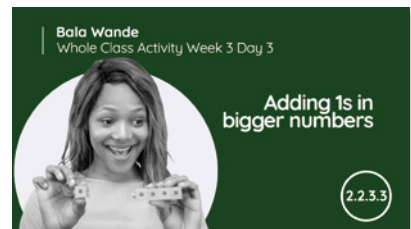
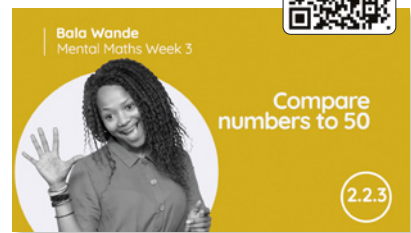
Ntlango

Vhiki leri hi ta tlanga ntlango wa 1, 2, 3, kombisa! – ku hlanganisa. Eka ntlango lowu, vadyondzi va ta titoloveta ku hlanganisa. Loko va tlanga hi voko rin'we, va ta hlanganisa tinomboro leti nga riki na ntsengo lowu tlulaka 10 naswona loko va tlanga hi mavoko mambirhi, va ta hlanganisa tinomboro leti nga riki na ntsengo lowu tlulaka 20. Kasi hi hala tlhelo vadyondzi van'wana va nga va va ha hlanganisa na ku hlayela hi ku tirhisa tintiho, swi na nkoka swinene ku va khutaza ku titoloveta ku ololoxa xiphiqo hi nhloko.

Ndlandlamuxo wa nongoti

Vhiki leri hi kongomisa eka ku hlanganisa na ku susa kufika eka 100. Swi na nkoka swinene eka vadyondzi ku lemuka leswaku loko va kota ku hlanganisa na ku susa va1, va ta swi kota ku hlanganisa na ku susa vakhume. Eka ntirho wa hina wo hlanganisa na ku susa, hi ta kongomisa eka:

- ku lemuka ku fana exikarhi ka ku hlanganisa na ku susa va1 na ku hlanganisa na ku susa ka vakhume.
- ku tirhisa ndzhathi wa tinomboro ku hlanganisa va1 swiya eka nomboro ya tidijiti timbirhi handle ko tlulela eka vakhume.
- ku tirhisa ndzhathi wa tinomboro ku susa va1 kusuka eka nomboro ya tidijiti timbirhi handle ko tlulela eka vakhume.



Leswi languteriwaka vhiki leri

- Pfuna vadyondzi ku twisisa leswaku loko va kota ku hlanganisa na ku susa va1, va ta swi kota ku hlanganisa na ku susa vakhume. Khutaza vadyondzi ku tiva tipatironi to ololoxa swiphiqo swa matematiki, leswi swi ta va pfuna ku kota ku tirha hi xihatla na hi ku hetiseka.

Adding and subtracting to 100

Mental Maths

This week we focus on the concepts of more than and less than in Mental Maths. The teacher will point to numbers on the 100 square and provide opportunities for learners to identify 5 more and less, and 10 more and less. The use of the 100 square also allows learners to practise identifying numbers 1–50. Encourage learners to provide responses quickly in order to develop their ability to recall number facts efficiently.

Game

This week we will play the game 1, 2, 3, show! – addition. In this game, learners will practise addition. When they play with one hand, they will add numbers with a total not more than 10 and when they play with two hands, they will add numbers with a total not more than 20. While some learners may still add using their fingers and counting. It is important to encourage learners to work towards solving the problems mentally.

Concept development

This week we focus on addition and subtraction to 100. It is important for learners to recognise that if they are able to add and subtract ones, then they will also be able to add and subtract tens. In our work on addition and subtraction, we will focus on:

- recognising the similarities between adding and subtracting ones and adding and subtracting tens.
- using a number line to add ones to two-digit numbers without bridging the ten.
- using a number line to subtract ones from two-digit numbers without bridging the ten.



What to look out for this week

- Help learners to realise that if they are able to add or subtract ones, then they are also able to add or subtract tens. Encourage them to identify patterns in solving mathematical problems as this will enable them to work more quickly and efficiently.



MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

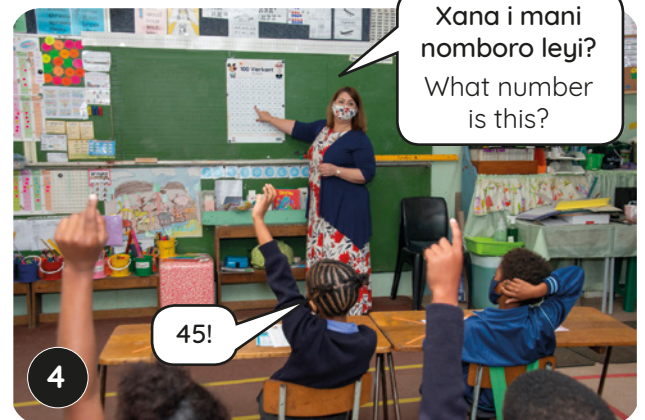
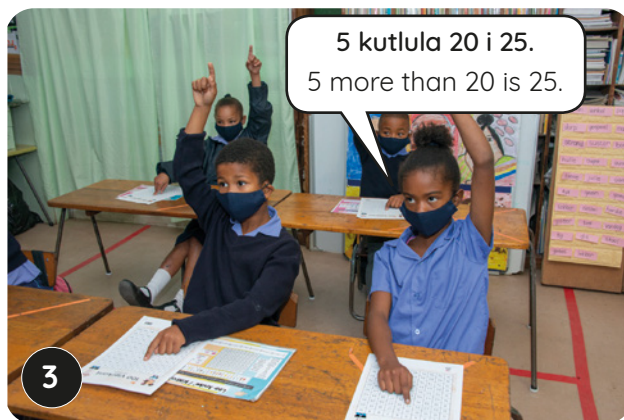
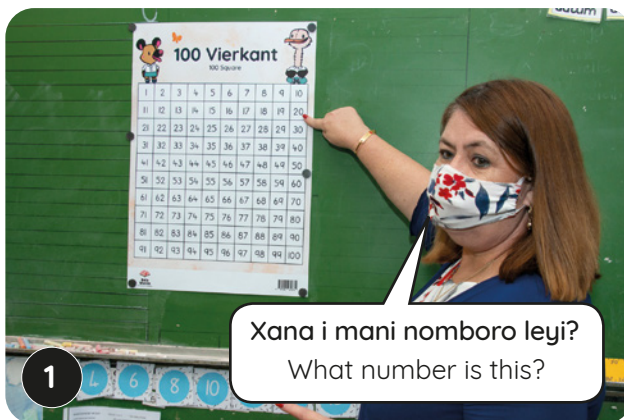
MENTHELE | MENTAL MATHS

Pfumelela vadyondzi mikarhi yo hlayanyana ku kuma tinomboro leti nga tikulu hi ntlhanu (kumbe khume) eka nomboro leyi nyikiweke.

Allow multiple opportunities for finding five (or ten) more and less than a given number.

Tsundzuka ku kamba siku na ku maka rijisitara siku rin'wana na rin'wana.

Remember to check the date and mark the register every day.



WEEK 3 • DAY 1

Adding 10s

Migingiriko ya mfuwo • Enrichment activities

Siku 1 • Day 1

Tirhisa makhadi ya wena ya val0 na val ku endla:

Use your 10s and 1s cards to make:

36

85

14

95

77

48

61

53

18

26

Siku 2 • Day 2

Tirhisa makhadi ya wena ya val0 na val ku endla:

Use your 10s and 1s cards to make:

59

23

78

34

82

15

49

96

64

28

Siku 3 • Day 3

Tsala swivulwa swa tinomboro ku komba val0 na val.

Write number sentences to show the 10s and 1s.

$$71 = \underline{\quad} + \underline{\quad}$$

$$56 = \underline{\quad} + \underline{\quad}$$

$$22 = \underline{\quad} + \underline{\quad}$$

$$89 = \underline{\quad} + \underline{\quad}$$

$$47 = \underline{\quad} + \underline{\quad}$$

$$13 = \underline{\quad} + \underline{\quad}$$

$$38 = \underline{\quad} + \underline{\quad}$$

$$93 = \underline{\quad} + \underline{\quad}$$

$$69 = \underline{\quad} + \underline{\quad}$$

$$11 = \underline{\quad} + \underline{\quad}$$

Siku 4 • Day 4

Tsala swivulwa swa tinomboro ku komba val0 na val.

Write number sentences to show the 10s and 1s.

$$71 = \underline{\quad} + \underline{\quad}$$

$$56 = \underline{\quad} + \underline{\quad}$$

$$22 = \underline{\quad} + \underline{\quad}$$

$$89 = \underline{\quad} + \underline{\quad}$$

$$47 = \underline{\quad} + \underline{\quad}$$

$$13 = \underline{\quad} + \underline{\quad}$$

$$38 = \underline{\quad} + \underline{\quad}$$

$$93 = \underline{\quad} + \underline{\quad}$$

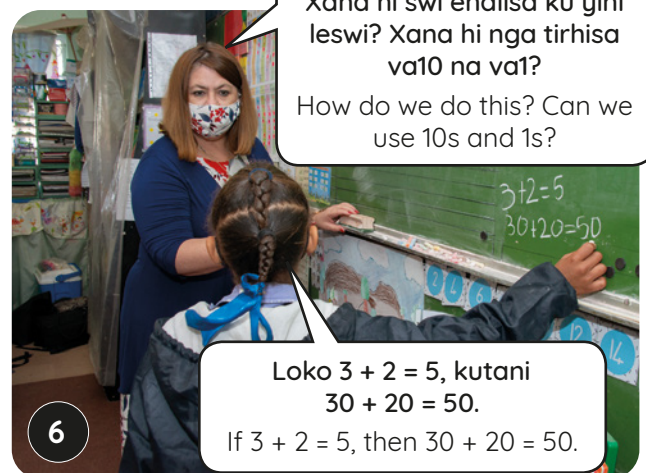
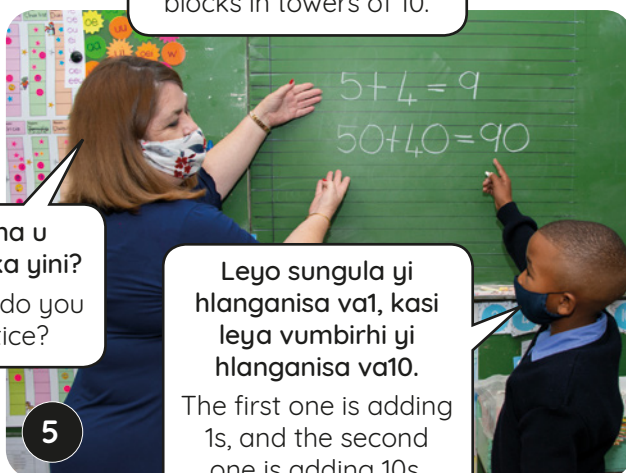
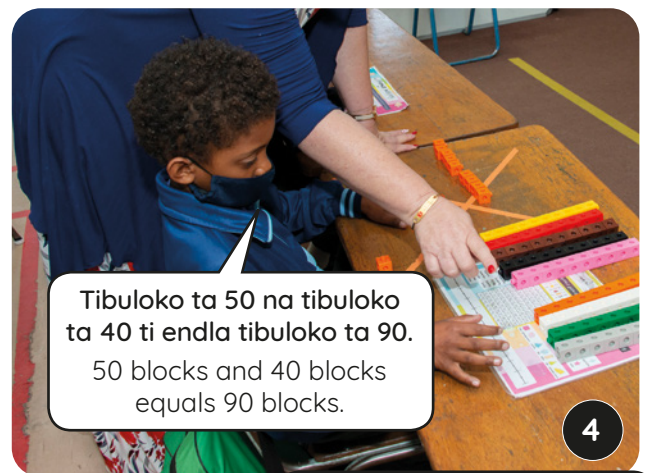
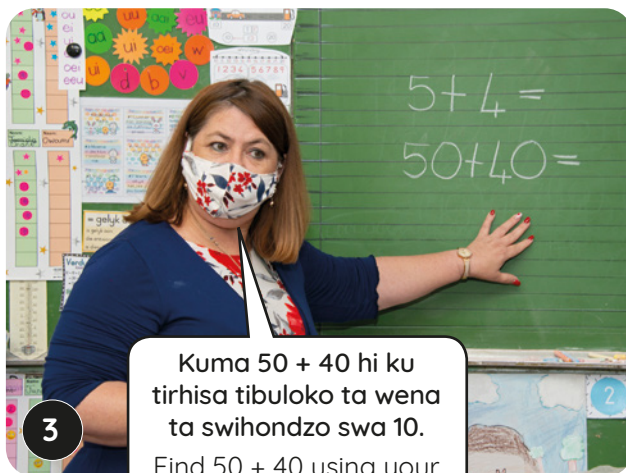
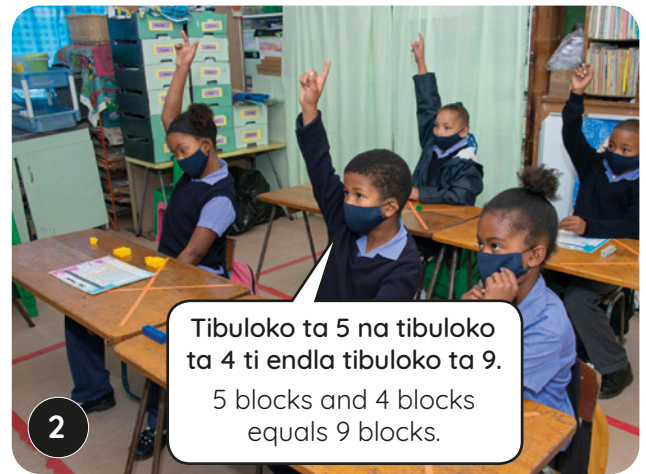
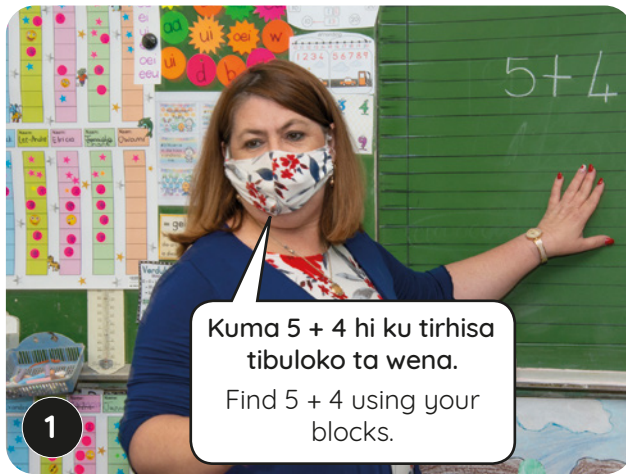
$$69 = \underline{\quad} + \underline{\quad}$$

$$11 = \underline{\quad} + \underline{\quad}$$

VHIKI 3 • SIKU 1

Ku hlanganisa va10

NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



Khutaza vadyondzi ku pimanisa swiphiqo swo hambanahambana swo hlanganisa hi va1 na va10. Pfuna vadyondzi ku vona leswaku loko va swi kota ku hlanganisa hi va1, va nga swi kota ku hlanganisa na hi vakhume.

Encourage learners to compare a variety of addition with 1s and addition with 10s problems. Help learners to see that if they can add ones, they can also add tens.



VHUKI • WEEK
3

SIKU 1 • DAY 1

Ku hlanganisa va10

Adding 10s

MENTHELE
MENTAL MATHSNDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENTNTIRHO WA
NTLAWA
GROUP WORKNTLANGO
GAMEMIGINGIRIKO
ACTIVITIESKU OLOLOXA
XIPHIQO
PROBLEM SOLVING**Ntlango: 1, 2, 3, komba! – ku hlanganisa**

Game: 1, 2, 3, show! – addition

- Tirhani hi vambirhi.
Work in pairs.
- Vulani mi ku 1, 2, 3, komba!
Mudyodzi hi un'we u
komba voko ri l.
Say 1, 2, 3, show! Show 1 hand each.
- Hlanganisani tintiho!
Add the fingers!
- Vulani mi ku 1, 2, 3, komba!
Mudyodzi hi un'we u
komba mavoko vambirhi.
Say 1, 2, 3, show! Show 2 hands each.
- Hlanganisani tintiho.
Langutani va10.
Add the fingers. Look for 10s.
- Endlani nakambe, mi hatlisa.
Go again. Try faster.

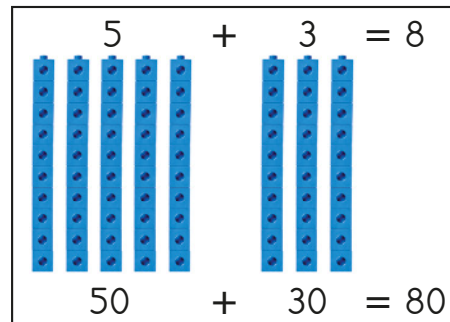
Ndza swi tiva leswaku
 $5 + 3 = 8$. Kutani, ndza
swi tiva leswaku
 $50 + 30 = 80$.

I know that $5 + 3 = 8$,
therefore I know that
 $50 + 30 = 80$.



Ndzi nga hlanganisa
van'we. Kutani,
ndzi nga hlanganisa
vakhume!

I can add ones.
So I can add tens!

**1** Ololoxa u tirhisa tibuloko.

Solve using blocks.

$2 + 3 = \underline{5}$	$4 + 3 = \underline{7}$	$3 + 3 = \underline{6}$
$20 + 30 = \underline{50}$	$40 + 30 = \underline{70}$	$30 + 30 = \underline{60}$

2 Ololoxa hi ku dirowa swifaniso. Tirhisa ⑩ ku dirowa 10.

Solve by drawing pictures. Use ⑩ to draw 10.

$20 + 30$	⑩ ⑩ ⑩ ⑩ ⑩	$= \underline{50}$
$30 + 40$	⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩ ⑩	$= \underline{70}$

Ku hlanganisa va10

- 3 Ololoxa hi ku dirowa swifaniso. Tirhisa ⑩ ku dirowa 10.

Solve by drawing pictures. Use ⑩ to draw 10.

Ndza swi tiva leswaku
 $40 + 30 = 70$. Kutani, ndza
 swi tiva leswaku
 $43 + 30 = 73$.

I know that $40 + 30 = 70$,
 so I know that $43 + 30 = 73$.



$43 + 30$

10	10	10	10	● ● ●
10	10	10		

10:	1:
7	3
73	

$36 + 30$

⑩	⑩	⑩	● ● ● ● ●
⑩	⑩	⑩	●

10:	1:
6	6
66	

$45 + 20$

⑩	⑩	⑩	⑩	● ● ● ● ●
⑩	⑩			

10:	1:
6	5
65	

- 4 Hlanganisa.

Add.

$30 + 20 = \underline{50}$	$40 + 50 = \underline{90}$	$30 + 30 = \underline{60}$
$37 + 20 = \underline{57}$	$45 + 50 = \underline{95}$	$39 + 30 = \underline{69}$

$70 + 20 = \underline{90}$	$30 + 50 = \underline{80}$
$73 + 20 = \underline{93}$	$34 + 50 = \underline{84}$

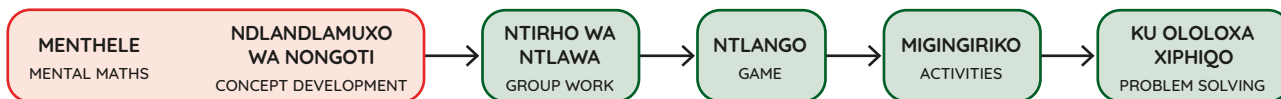
Ndzi nga
 hlanganisa 10 eka
 nomboro yihi
 ni yihi!

I can add 10
 to any number!

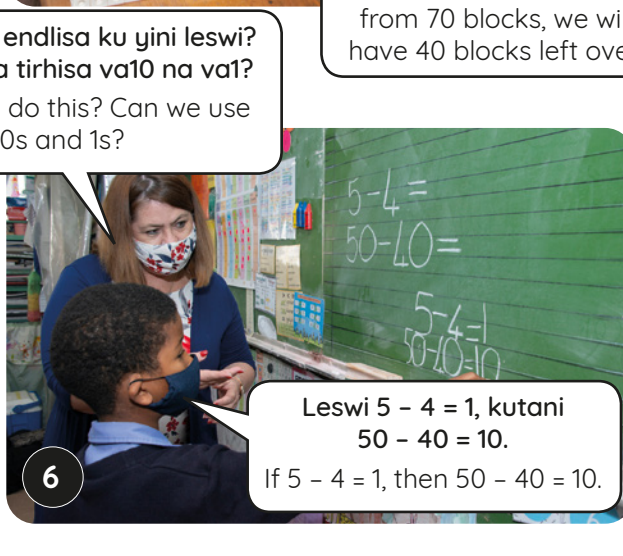
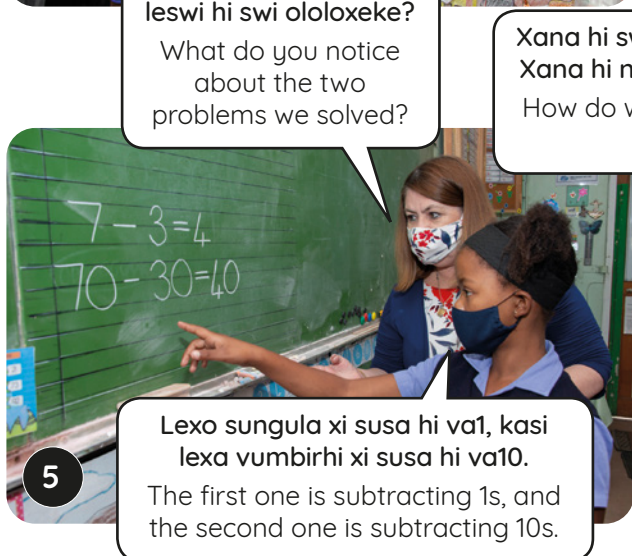
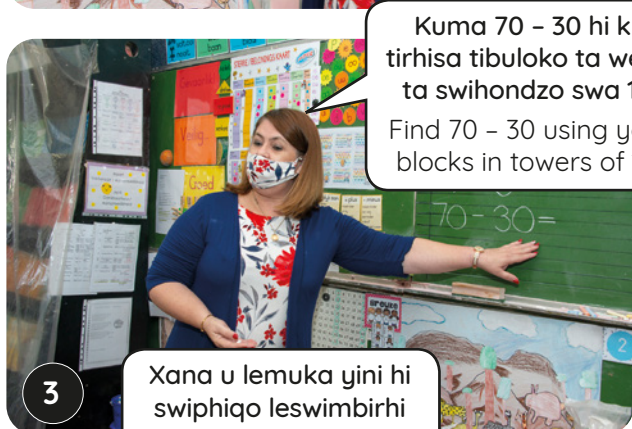
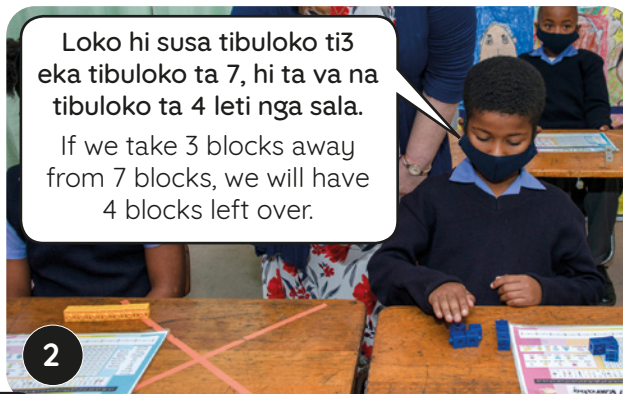


WEEK 3 • DAY 2

Subtracting 10s



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



Khutaza vadyondzi ku pimanisa swiphiqo swo hambanahambana swo susa hi va1 na va10. Pfuno vadyondzi ku vona leswaku loko va swi kota ku susa hi va1, va nga swi kota ku susa na hi va10.

Encourage learners to compare a variety of subtraction with 1s and subtraction with 10s problems. Help learners to see that if they can subtract 1s, then they can also subtract 10s.

VHIKI • WEEK
3

SIKU 2 • DAY 2

Ku susa va10

Subtracting 10s

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

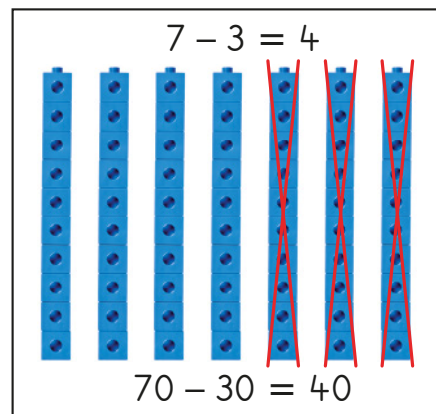


Ndza swi tiva leswaku
 $7 - 3 = 4$, kutani ndza swi
tiva leswaku $70 - 30 = 40$.

I know that $7 - 3 = 4$,
therefore I know that
 $70 - 30 = 40$.

Ndzi nga susa van'we, kutani
ndzi nga susa vakhume!

I can subtract ones,
so I can subtract tens!



1 Ololoxa u tirhisa tibuloko.

Solve using blocks.

$7 - 4 = \underline{3}$	$5 - 2 = \underline{3}$	$6 - 4 = \underline{2}$
$70 - 40 = \underline{30}$	$50 - 20 = \underline{30}$	$60 - 40 = \underline{20}$
$9 - 4 = \underline{5}$	$8 - 4 = \underline{4}$	$9 - 3 = \underline{6}$
$90 - 40 = \underline{50}$	$80 - 40 = \underline{40}$	$90 - 30 = \underline{60}$

2 Ololoxa hi ku dirowa swifaniso. Tirhisa (10) ku dirowa 10.

Solve by drawing pictures. Use (10) to draw 10.

$70 - 20$ (10) (10) ~~(10)~~ ~~(10)~~ (10) = 50

$50 - 30$ (10) (10) ~~(10)~~ ~~(10)~~ ~~(10)~~ = 20



3 Susa.

Subtract.

$30 - 10 = \underline{20}$	$50 - 30 = \underline{20}$	$60 - 40 = \underline{20}$
$70 - 40 = \underline{30}$	$80 - 30 = \underline{50}$	$90 - 20 = \underline{70}$
$60 - 50 = \underline{10}$	$80 - 50 = \underline{30}$	$90 - 40 = \underline{50}$

4 Ololoxa hi ku dirowa swifaniso.

Solve by drawing pictures.

58 - 30

10

10

~~10~~

~~10~~

~~10~~

10:	1:
2	8
28	

65 - 30

10

10

10

~~10~~

~~10~~

~~10~~

10:	1:
3	5
35	

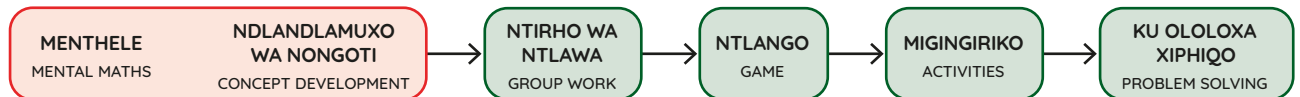
Ndzi nga susa 10 eka nomboro yihi ni yihi!
I can subtract 10 from any number!



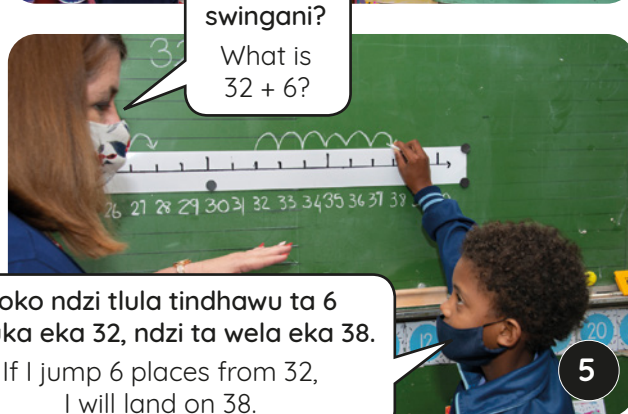
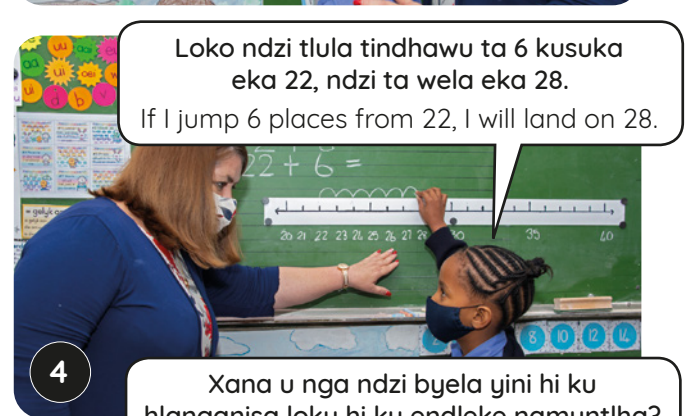
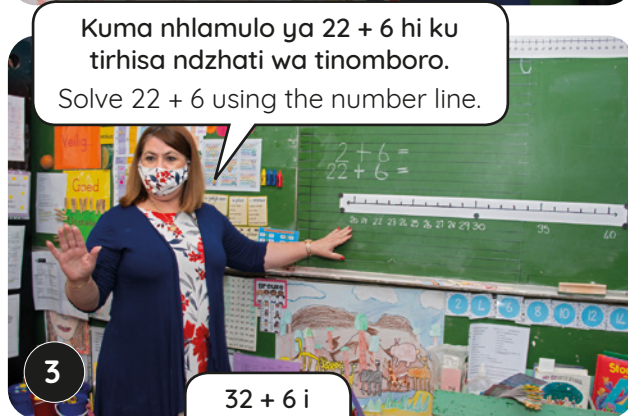
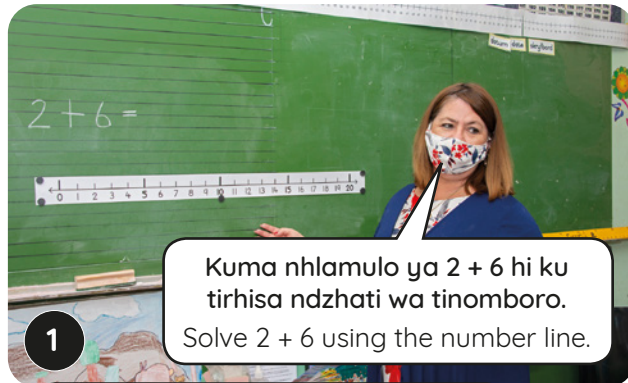
5 Susa.

Subtract.

$50 - 30 = \underline{20}$	$70 - 40 = \underline{30}$	$90 - 20 = \underline{70}$
$58 - 30 = \underline{28}$	$75 - 40 = \underline{35}$	$97 - 20 = \underline{77}$
$60 - 20 = \underline{40}$	$70 - 50 = \underline{20}$	$80 - 60 = \underline{20}$
$62 - 20 = \underline{42}$	$75 - 50 = \underline{25}$	$83 - 60 = \underline{23}$



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



Pfumelela vadyondzi mikarhi yo hlayanyana ku kuma tinhlamulo ta swiphiqo swo hambana leswi ngenisaka ku hlanganisa va1. Khutaza vadyondzi ku vona leswaku loko va hlanganisa va1 eka tinomboro leti nga na tidijiti ti2 (u nga vekeli etlhelo swikombiso leswi tlulelaka halahaya ka khume namuntlha), kutani nomboro leyi nga eka ndhawu ya vakhume a yi hundzuki. Leswi swi ta va pfuna ku twisisa leswaku loko va swi kota ku hlanganisa va1, va nga swi kota ku hlanganisa va1 eka tinomboro letikulu.

Allow learners multiple opportunities to solve a variety of problems that involve adding ones. Encourage learners to see that if they add ones to 2-digit numbers (do not include examples that bridge ten today), then the number in the tens place does not change. This will help them to understand that if they can add ones, then they can also add ones to bigger numbers.

Adding 1s in bigger numbers

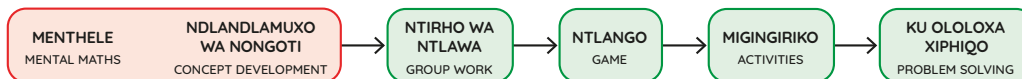
VHUKI • WEEK

3

SIKU 3 • DAY 3

Ku hlenganisa va1 eka tinomoro letikulu

Adding 1s in bigger numbers



Eka rixaxa leri, hi hlayela kusakela ka 41 kufikela ka 50!
In this row we count from 41 to 50!



Ndza swi tiva leswaku $4 + 5 = 9$, kutani ndza swi tiva leswaku $44 + 5 = 49$.
I know that $4 + 5 = 9$, therefore I know that $44 + 5 = 49$.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

+5

41	42	43	44	45	46	47	48	49	50
----	----	----	----	----	----	----	----	----	----

1	$4 + 5 = 9$	$3 + 4 = 7$	$3 + 6 = 9$
	$44 + 5 = 49$	$43 + 4 = 47$	$43 + 6 = 49$

-4

41	42	43	44	45	46	47	48	49	50
----	----	----	----	----	----	----	----	----	----

2	$9 - 4 = 5$	$8 - 3 = 5$	$6 - 3 = 3$
	$49 - 4 = 45$	$48 - 3 = 45$	$46 - 3 = 43$



Ndza swi tiva leswaku $9 - 4 = 5$, kutani ndza swi tiva leswaku $49 - 4 = 45$.
I know that $9 - 4 = 5$, therefore I know that $49 - 4 = 45$.

$7 - 4 = 3$	$9 - 6 = 3$
$47 - 4 = 43$	$49 - 6 = 43$

Ku hlanganisa va1 eka tinomboro letikulu



A hi langute va50! Eka rixaxa leri, hi hlalela kusukela ka 51 kufikela ka 60.

Let's look at the 50s! In this row we count from 51 to 60.

51	52	53	54	55	56	57	58	59	60
----	----	----	----	----	----	----	----	----	----

+4

3

$$55 + 4 = 59$$

$$52 + 6 = 58$$

$$55 + 5 = 60$$

$$54 + 3 = 57$$

$$51 + 5 = 56$$

$$57 + 2 = 59$$

$$57 - 2 = 55$$

$$59 - 4 = 55$$

$$53 - 3 = 50$$

$$58 - 4 = 54$$

$$57 - 5 = 52$$

$$59 - 6 = 53$$

+3

61	62	63	64	65	66	67	68	69	70
----	----	----	----	----	----	----	----	----	----

4

$$62 + 3 = 65$$

$$64 + 4 = 68$$

$$65 + 5 = 70$$

$$64 + 5 = 69$$

$$66 + 3 = 69$$

$$67 + 3 = 70$$

$$68 - 3 = 65$$

$$68 - 5 = 63$$

$$64 - 3 = 61$$

$$65 - 2 = 63$$

$$69 - 6 = 63$$

$$66 - 4 = 62$$

5

Thozi u bake makokisi ya 69. Ndyangu wa ka vona wu dyile 6. Ku sale makokisi mangani?



Thozi baked 69 scones. Her family ate 6. How many scones remain?

$$69 - 6 = 63$$

Sipho u rhwale tilitara ta 70 ta mati. U halate tilitara ta 5. Ku sale tilitara tingani?

Sipho carried 70 litres of water. He spilled 5 litres. How many litres are left?

$$70 - 5 = 65 \text{ litres}$$

WEEK 3 • DAY 4

Subtracting 1s in bigger numbers

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

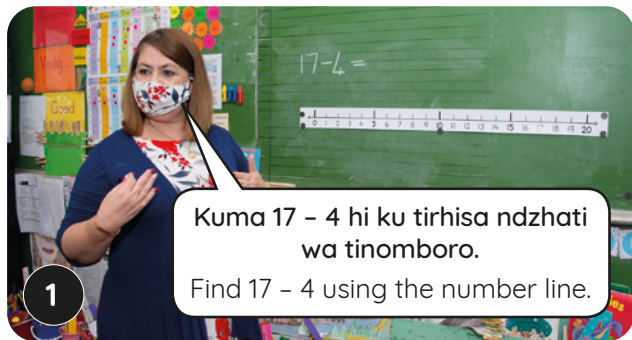
NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

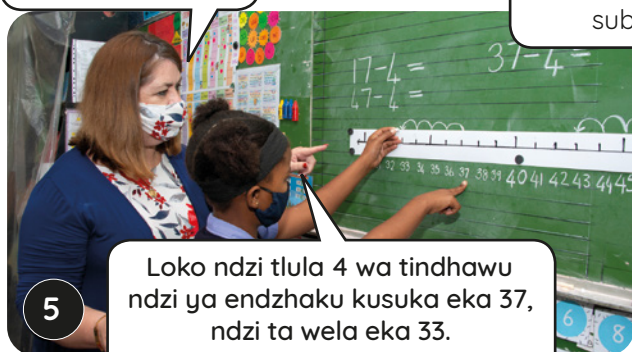


Xana i mani 47 - 4 hi ku tirhisa ndzhathi wa tinomboro?
What is 47 - 4 using the number line?



37 - 4 i swingani?
What is 37 - 4?

Xana u nga ndzi byela yini hi ku susa loku hi ku endleke namuntlha?
What can you tell me about the subtraction we did today?



Pfumelela vadyondzi mikarhi yo hlayanyana ku kuma tinhlamulo ta swiphiqo swo hambana leswi ngenhisaka ku susa va1. Khutaza vadyondzi ku vona leswaku loko va susa va1 eka tinomboro leti nga na tidijiti ti2 (u nga vekeli etlhelo swikombiso leswi tlulelaka halahaya ka khume namuntlha), nomboro leyi nga le ka ndhawu ya vakhume a yi hundzuki. Leswi swi ta va pfuna ku twisisa leswaku loko va swi kota ku susa va1, va nga swi kota ku susa va1 eka tinomboro letikulu.

Allow learners multiple opportunities to solve a variety of problems that involve subtracting ones. Encourage them to see that if they subtract ones from 2-digit numbers (do not include examples that bridge ten today), then the number in the tens place does not change. This will help them to understand that if they can subtract ones, they can also subtract ones in bigger numbers.

Ku susa va1 eka tinomboro letikulu



SIKU 4 • DAY 4

Ku susa va1 eka tinomboro letikulu

Subtracting 1s in bigger numbers

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHISO
PROBLEM SOLVING

Eka rixaxa leri, hi hlayela
kusukela ka 71 kufikela ka 80!

In this row we count
from 71 to 80!



Ndza swi tiva leswaku
 $5 + 4 = 9$, kutani ndza swi
tiva leswaku $75 + 4 = 79$.

I know that $5 + 4 = 9$,
therefore I know that
 $75 + 4 = 79$.

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

+4

71	72	73	74	75	76	77	78	79	80
----	----	----	----	----	----	----	----	----	----

1

$5 + 4 = 9$	$2 + 4 = 6$	$3 + 6 = 9$
$75 + 4 = 79$	$72 + 4 = 76$	$73 + 6 = 79$

-4

71	72	73	74	75	76	77	78	79	80
----	----	----	----	----	----	----	----	----	----

2

$8 - 4 = 4$	$9 - 7 = 2$	$8 - 5 = 3$
$78 - 4 = 74$	$79 - 7 = 72$	$78 - 5 = 73$



Ndza swi tiva leswaku
 $8 - 4 = 4$, kutani ndza
swi tiva leswaku
 $78 - 4 = 74$.

I know that $8 - 4 = 4$,
therefore I know that
 $78 - 4 = 74$.

$6 - 2 = 4$	$9 - 3 = 6$
$76 - 2 = 74$	$79 - 3 = 76$

Subtracting 1s in bigger numbers



A hi langute va80! Eka rixaxa leri, hi hlalela kusakela ka 81 kufikela ka 90.

Let's look at the 80s! In this row we count from 81 to 90.

81	82	83	84	85	86	87	88	89	90
----	----	----	----	----	----	----	----	----	----

+3

3

$85 + 3 = 88$	$83 + 6 = 89$	$86 + 4 = 90$
$82 + 3 = 85$	$82 + 4 = 86$	$87 + 2 = 89$

$87 - 2 = 85$	$89 - 4 = 85$	$84 - 3 = 81$
$86 - 4 = 82$	$88 - 5 = 83$	$87 - 5 = 82$

+4

91	92	93	94	95	96	97	98	99	100
----	----	----	----	----	----	----	----	----	-----

4

$92 + 4 = 96$	$94 + 3 = 97$	$96 + 4 = 100$
$95 + 5 = 100$	$96 + 2 = 98$	$93 + 3 = 96$

$96 - 3 = 93$	$98 - 5 = 93$	$95 - 3 = 92$
$97 - 2 = 95$	$99 - 7 = 92$	$96 - 6 = 90$

5

Sam a ri ni timabulu ta 81. U wine tin'wana ta 6. Xana u ni timabulu tingani sweswi?

Sam had 81 marbles. He won 6 more. How many marbles does he have now?

$$81 + 6 = 87$$



Asa u na R98. U xava apula ra R5. Xana u na mali muni sweswi?

Asa has R98. She buys an apple for R5. How much money does she have now?

$$R98 - R5 = R93$$





SIKU 5 • DAY 5

Nkatsakanyo Consolidation

MENTHELE
MENTAL MATHS

MAKAMBELELO
ASSESSMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIOO
PROBLEM SOLVING

A hi vulavule hi Matematiki!

Let's talk Maths!

Hi Xinghezi hi ri:

In English we say:

Ololoxa hi ku dirowa swifaniso swa tinomboro. Solve by drawing number pictures.

Ndza swi tiva leswaku $4 + 3 = 7$,
kutani ndza swi tiva leswaku $40 + 30 = 70$.

I know that $4 + 3 = 7$, therefore
I know that $40 + 30 = 70$.

Ndza swi tiva leswaku $9 - 4 = 5$,
kutani ndza swi tiva leswaku $90 - 40 = 50$.

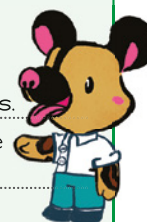
I know that $9 - 4 = 5$, therefore
I know that $90 - 40 = 50$.

Ndza swi tiva leswaku $30 + 40 = 70$,
kutani ndza swi tiva leswaku $35 + 40 = 75$.

I know that $30 + 40 = 70$, therefore
I know that $35 + 40 = 75$.

Ndza swi tiva leswaku $70 - 30 = 40$,
kutani ndza swi tiva leswaku $76 - 30 = 46$.

I know that $70 - 30 = 40$, therefore
I know that $76 - 30 = 46$.



1 Ololoxa u tirhisa patironi.

Solve using the pattern for help.

$3 + 4 = 7$	$2 + 6 = 8$	$8 - 3 = 5$	$9 - 6 = 3$
$30 + 40 = 70$	$20 + 60 = 80$	$80 - 30 = 50$	$90 - 60 = 30$

2 Ololoxa u tirhisa patironi.

Solve using the pattern for help.

$20 + 30 = 50$	$50 + 20 = 70$	$70 - 40 = 30$	$60 - 20 = 40$
$26 + 30 = 56$	$58 + 20 = 78$	$75 - 40 = 35$	$63 - 20 = 43$

3 Ololoxa u tirhisa patironi.

Solve using the pattern for help.

$2 + 3 = 5$	$5 + 4 = 9$	$8 - 2 = 6$	$5 - 3 = 2$
$72 + 3 = 75$	$35 + 4 = 39$	$58 - 2 = 56$	$65 - 3 = 62$

Assessment and consolidation

- 4 Dirowa (10) ku komba 10. Dirowa ● ku komba 1.

Draw (10) to show 10. Draw ● to show 1.

48

$$48 = 10 + 10 + 10 + 10 + 8$$

- 5 Tlhantlha hi val0 na val.

Break down into 10s and 1s.

$$53 = 10 + 10 + 10 + 10 + 10 + 3$$

$$49 = 10 + 10 + 10 + 10 + 9$$

- 6 Ololoxa.

Solve.

$82 + 10 = 92$	$64 + 5 = 69$	$28 + 2 = 30$
$49 - 6 = 43$	$87 - 5 = 82$	$87 - 10 = 77$

- 7

	Mabokisi mangani? How many boxes?	3
	Tikhirayoni tingani? How many crayons?	30

- 8

Vana i 3, tintiho tingani? 3 children, how many fingers?	30	Vana i 4, swikunwana swingani? 4 children, how many toes?	40
Vana i 5, tintiho tingani? 5 children, how many fingers?	50	Vana i 10, swikunwana swingani? 10 children, how many toes?	100

Ku andzisa i ka mitlawa leyi ringanaka

		Switirhisiwa
Menthele: Fizz Pop! – mbirihato wa tinomboro kufikela ka 50		ku hava
Ntlango: Andzisa hi 2, Mbirihata, Andzisa hi 10 na hi 5		tibuloko ta multifix
		
Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Mitlawa ya 2	LAB, tibuloko ta multifix
2	Mbirihato	LAB, tibuloko ta multifix
3	Mitlawa ya 10	LAB, tibuloko ta multifix
4	Mitlawa ya 5	LAB, tibuloko ta multifix
5	Nkatsakanyo na makambeelo yo dyondza	LAB

Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:	✓
mbirihata tinomboro ta le xikarhi ka 0 na 50.	
tirhisa ku hlayela loku tlulaka ku andzisa hi 2, 5 na 10.	
tiva na ku tirhisa swivulwa swa tinomboro swo andzisa.	

Makambelelo (languta eka tipheji ta le ndzhaku ka xiletelo lexi)

Makambelelo yo tsariwa: Tinomboro, Tioparexini na Vuxaka – Ku andzisa

Makambelelo ya swanomo na swo endla: Matirhiselo ya Vuxokoxoko bya Tinhlayo – Tigirafu ta swifaniso (vona girafu ya swifaniso eka LAB, Switirhisiwa)

Multiplication is about equal groups

		Resources
Mental Maths: Fizz Pop! doubling numbers to 50		none
Game: Multiply by 2, Double, Multiply by 10 and by 5		multifix blocks
		
Day	Lesson activity	Lesson resources
1	Groups of 2	LAB, multifix blocks
2	Doubling	LAB, multifix blocks
3	Groups of 10	LAB, multifix blocks
4	Groups of 5	LAB, multifix blocks
5	Consolidation and assessment for learning	LAB

After this week the learner should be able to:	✓
double numbers between 0 and 50.	
use skip counting to multiply by 2, 5 and 10.	
identify and use multiplication number sentences.	

Assessment (see back pages of this guide)

Written assessment: Numbers, Operations and Relationships – Multiplication

Oral and practical assessment: Data Handling – Pictographs (refer to the pictograph in the LAB, Resources)

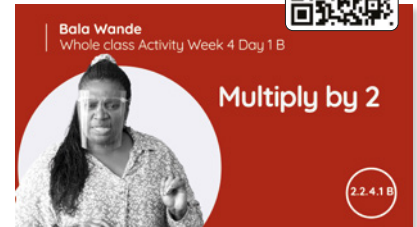
Ku andzisa i ka mitlawa leyi ringanaka

Menthele

Vhiki leri hi ta tlanga ntlango wa Fizz Pop! hi kongomise eka mbirihato. Swi na nkoka swinene eka vadyondzi ku titoloveta mbirihato na ku kota ku tirhisa endlelo leri ro khakhuleta. Ntwisiso wa mbirihato i wa nkoka tanihi leswi vadyondzi va sungulaka ku dyondza hi ku andzisa.

Ntlango

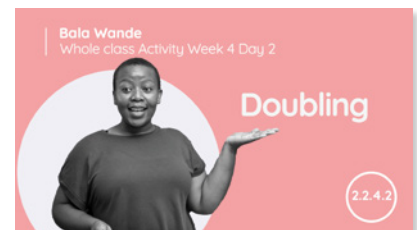
Vhiki leri hi tlanga ntlango lowu, Andzisa hi 2 na Mbirihata. Xikongomelo xa ntlango lowu i ku nyika vadyondzi nkarhi wo titoloveta ku andzisa hi va2 hi ku tirhisa swihondzo swa va2 ku va pfuna ku oloxa swiphiko hi xihatla na hi ku olova. Swi na nkoka swinene ku va vadyondzi va hlayela hi va2 na ku vula xivulwa xa tinomboro leswaku va kota ku hlukukisa ntwisiso wa vona wa nongoti. Nakambe va tlanga Andzisa hi 10 na hi 5, leswi nga ta va pfuna ku ndlandlamuxa vuswikoti bya vona byo andzisa.



Ndlandlamuxo wa nongoti

Vhiki leri hi ta kongomisa eka ku andzisa. Vadyondzi va ta tsundzuka leswaku ku andzisa swi mayelana na mitlawa yo ringana naswona va ta tirhisa ku hlayela hi kutlulatula ku oloxa swiphiko swo andzisa. Eka ntirho wa hina wo andzisa, hi ta kongomisa eka:

- ku tirhisa ku hlayela ko tlulatula ku andzisa hi 2, 5 na 10. Ku andzisa swi mayelana na ku vuyelela mitlawa leyi ringanaka, naswona vadyondzi va fanele va kota ku hlayela hi kutlulatula hi ku titshemba.
- ku mbirihata tinomboro exikarhi ka 0 na 50. Mbirihato i maendlelo yo khakhuleta ya nkoka lama va pfunaka ku oloxa swiphiko hi ku hetiseka.
- Ku tiva na ku tirhisa swivulwa swa tinomboro swa ku andzisa.



Leswi languteriwaka vhiki leri

- Tsundzuxa vadyondzi leswaku ku andzisa swi ngenisa ku vuyelela mitlawa leyi ringaka. Vadyondzi va fanele va titshemba eka ku hlayela hi kutlulatula leswaku va ta kota ku oloxa swiphiko leswi hi ku olova na ku hetiseka.
- Khutaza vadyondzi ku vula hi nomu swivulwa swa tinomboro swo andzisa na ku nyika tinhlamuselo ta tinhlamulo ta swiphiko leswaku va kota ku hlukukisa ntwisiso wa vona wa nongoti.

Multiplication is about equal groups

Mental Maths

This week we will play Fizz Pop! with a focus on doubling. It is important for learners to practise doubling and to become efficient at using this calculation strategy. An understanding of doubling is necessary as learners begin to learn about multiplication.

Games

This week we play the games Multiply by 2 and Double. The purpose of the games is to provide learners with an opportunity to practise multiplying 2s by using towers of 2 to help them solve problems quickly and easily. It is important for learners to count in 2s and to say the number sentence in order to develop their conceptual understanding. The also play Multiply by 10 and by 5, which will help learners develop their multiplication skills.

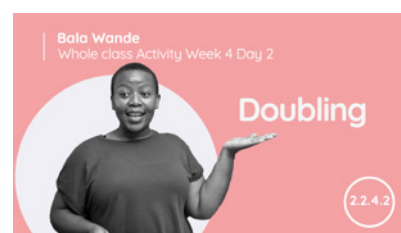
Concept development

This week we focus on multiplication. Learners will recognise that multiplication is about equal groups and will use skip counting to solve multiplication problems. In our work on multiplication, we will focus on:

- using skip counting to multiply by 2, 5 and 10. Multiplication is about repeating equal groups, and so learners need to be able to skip count confidently.
- doubling numbers between 0 and 50. Doubling is an essential calculation strategy that helps learners solve problems efficiently.
- identifying and using multiplication number sentences.

What to look out for this week

- Remind learners that multiplication involves repeating equal groups. Learners need to be confident in skip counting in order to solve these problems quickly and efficiently.
- Encourage learners to verbalise multiplication number sentences and to explain their solution of problems in order to develop their conceptual understanding.



Mitlawa ya 2

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MINGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

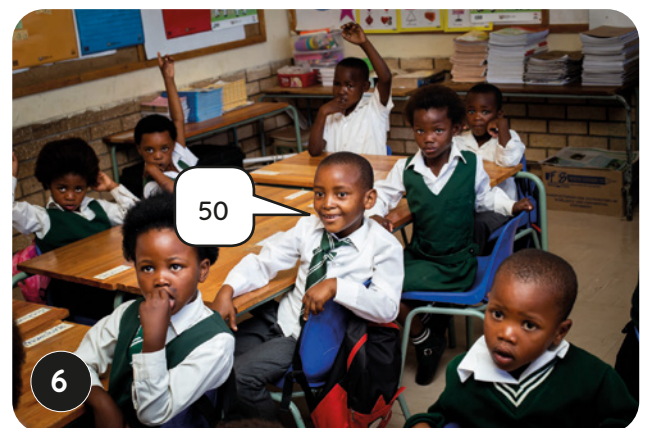
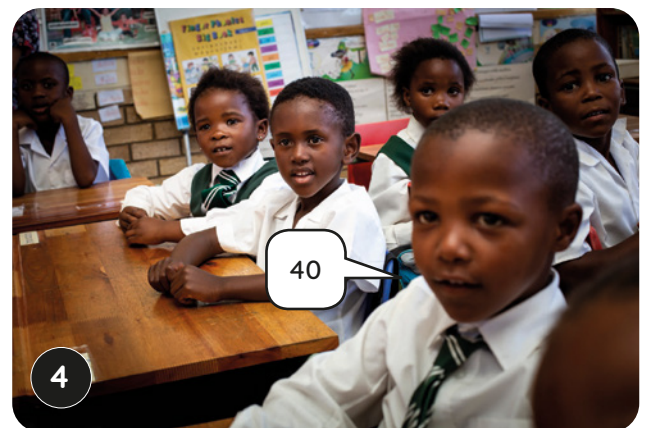
MENTHELE | MENTAL MATHS

Katsakanya mbirihato u tirhisa ntlango wa Fizz Pop!

Consolidate doubling using the Fizz Pop! game.

Tsundzuka ku kamba siku na ku maka rijisitara siku rin'wana na rin'wana.

Remember to check the date and mark the register every day.



WEEK 4 • DAY 1

Groups of 2

Migingiriko ya mfuwo • Enrichment activities

Siku 1 • Day 1

Hlanganisa.

Add.

$4 + 5 = \underline{\quad}$

$34 + 5 = \underline{\quad}$

$6 + 2 = \underline{\quad}$

$56 + 2 = \underline{\quad}$

$3 + 4 = \underline{\quad}$

$43 + 4 = \underline{\quad}$

$2 + 5 = \underline{\quad}$

$72 + 5 = \underline{\quad}$

$1 + 4 = \underline{\quad}$

$61 + 4 = \underline{\quad}$

Siku 2 • Day 2

Susa.

Subtract.

$9 - 1 = \underline{\quad}$

$89 - 1 = \underline{\quad}$

$6 - 4 = \underline{\quad}$

$36 - 4 = \underline{\quad}$

$5 - 3 = \underline{\quad}$

$45 - 3 = \underline{\quad}$

$8 - 3 = \underline{\quad}$

$68 - 3 = \underline{\quad}$

$7 - 2 = \underline{\quad}$

$27 - 2 = \underline{\quad}$

Siku 3 • Day 3

Hlanganisa.

Add.

$2 + 6 = \underline{\quad}$

$42 + 6 = \underline{\quad}$

$1 + 5 = \underline{\quad}$

$21 + 5 = \underline{\quad}$

$4 + 4 = \underline{\quad}$

$84 + 4 = \underline{\quad}$

$3 + 6 = \underline{\quad}$

$33 + 6 = \underline{\quad}$

$5 + 3 = \underline{\quad}$

$75 + 2 = \underline{\quad}$

Siku 4 • Day 4

Susa.

Subtract.

$8 - 6 = \underline{\quad}$

$58 - 6 = \underline{\quad}$

$5 - 4 = \underline{\quad}$

$55 - 4 = \underline{\quad}$

$9 - 7 = \underline{\quad}$

$99 - 7 = \underline{\quad}$

$6 - 3 = \underline{\quad}$

$46 - 3 = \underline{\quad}$

$7 - 4 = \underline{\quad}$

$67 - 4 = \underline{\quad}$



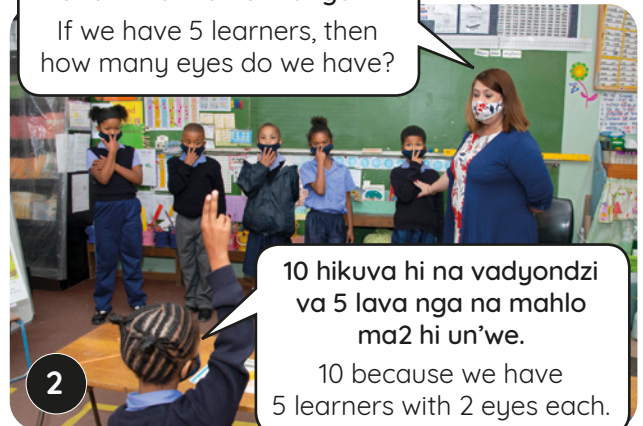
NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Xana mudyondzi un'we u na mahlo mangani?
How many eyes does one learner have?



Loko hi ri na vadyondzi va 5,
xana hi na mahlo mangani?

If we have 5 learners, then
how many eyes do we have?



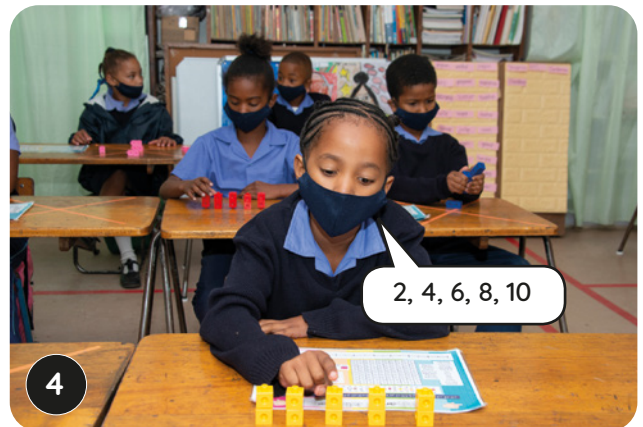
10 hikuva hi na vadyondzi
va 5 lava nga na mahlo
ma2 hi un'we.

10 because we have
5 learners with 2 eyes each.

Sweswi ndzi kombe mitlawa ya 5
ya tibuloko ti2.
Now show me 5 groups of 2 blocks.



2, 4, 6, 8, 10



Hi nga komba mitlawa ya wena ya 5 ya va2
hi ku tsala xivulwa xa tinomboro xa $5 \times 2 = 10$.

We can show your 5 groups of 2 by writing
the number sentence $5 \times 2 = 10$.



Hi ri 5 hi andzisa hi
2 i 10.

We say 5 times 2
equals 10.

Pfumelela vadyondzi mikarhi yo hlayanyana ku tirha hi mitlawa ya 2. Va khutaze ku tsala na ku vula hi nomu swivulwa swa tinomboro leswaku va ta hluvukisa vuswikoti byo tsala na ku tirha hi swivulwa swa tinomboro swo andzisa.

Allow the learners many opportunities to work with groups of 2. Encourage them to write and verbalise the number sentences so that they develop their ability to write and work with multiplication number sentences.



SIKU 1 • DAY 1

Mitlawa ya 2
Groups of 2MENTHELE
MENTAL MATHSNDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENTNTIRHO WA
NTLAWA
GROUP WORKNTLANGO
GAMEMIGINGIRIKO
ACTIVITIESKU OLOLOXA
XIPHIQO
PROBLEM SOLVINGNtlango: Andzisa hi 2
Game: Multiply by 2

- Aka swihondzo swa 10 swa tibuloko ti2.
Build 10 towers of 2 blocks.
- Mudyondzisi wa wena u vita nomboro.
Your teacher calls a number.
- Teka swihondzo leswo tala.
Take that many towers.
- Tikhiyubu tingani?
How many cubes?
- Vula xivulwa lexi xa tinomboro,
"4 a andzisiwa ka 2 u ringana na 8."
Say the number sentence, "4 times 2 equals 8."



$$4 \times 2 = \text{[4 towers of 2 blocks]} \quad 4 \times 2 = 8$$

- Komba u tirhisa swihondzo swa wena swa tinomboro.
Kutani u ololoxa.

Show using your number towers. Then solve.

$3 \times 2 = \underline{6}$	$5 \times 2 = \underline{10}$	$7 \times 2 = \underline{14}$
$4 \times 2 = \underline{8}$	$9 \times 2 = \underline{18}$	$10 \times 2 = \underline{20}$

- Tata xivulwa xa tinomboro xa xifaniso hi xin'we.

Complete the number sentence for each picture.

	5 a andzisiwa ka 2 u ringana na 10 5 times 2 equals 10	$5 \times 2 = 10$
	___ a andzisiwa ka 2 u ringana na ___ ___ times 2 equals ___	$\underline{7} \times \underline{2} = \underline{14}$

Ku andzisa i ku vugelela mitlawa leyi ringanaka. Loko hi andzisa hi 2, hi ehleketa hi mitlawa ya 2.

Multiplication is about repeating equal groups. When we multiply by 2, we think about groups of 2.



3

	Vana vangani? How many children?	6
	Mahlo mangani? How many eyes?	12

	Vana vangani? How many children?	9
	Mahlo mangani? How many eyes?	18

	Mabodhlela mangani? How many bottles?	5
	Tilitara tingani? How many litres?	10 l

	Mabodhlela mangani? How many bottles?	8
	Tilitara tingani? How many litres?	16 l

4 Hlayela va2 ku komba nhlayo ya tilitara.

Count in 2s to show the number of litres.

mabodhlela bottles	1	2	3	4	5	6	7	8	9	10
tilitara litres	2	4	6	8	10	12	14	16	18	20

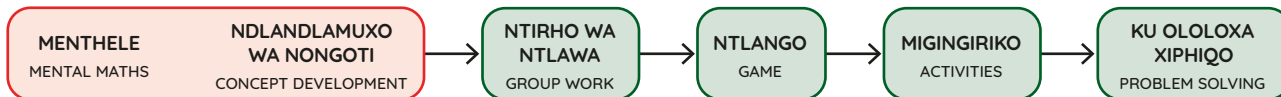
5 Khakhuleta.

Calculate.

$3 \times 2 = 6$	$5 \times 2 = 10$	$6 \times 2 = 12$	$2 \times 2 = 4$
$1 \times 2 = 2$	$4 \times 2 = 8$	$8 \times 2 = 16$	$10 \times 2 = 20$



Doubling



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

1

Xana ndzi dirowe nomboro yihi?
What number have I drawn?

25 hikuva u na vakhume va2 na va1 va 5.
25, because you have 2 tens and 5 ones.

2

Xana hi fanele ku endlisa ku yini ku komba ku mbirihata 25?
What must we do to show double 25?

3

Hi fanela ku dirowa va10 na va1 vo fana hala ka tlhelo lerin'wana ra ntila.
We must draw the same 10s and 1s on the other side of the line.

4

Sweswi, loko hi mbirihata 25, xana hi na swingani loko swi hlanganile hinkwaswo?
So, if we double 25, how many do we have altogether?

Ku na vakhume va 4, na va1 va 5 na va1 va 5 swi endla khume un'wana, kutani hi ta va na vakhume va 5, leswi endlaka 50.
There are 4 tens, and then 5 ones and 5 ones make another ten so we will have 5 tens in total which makes 50.

5

$25 \times 2 = 50$

6

25 hi andzisa hi 2 swi ringana na 50.
25 times 2 equals 50.

Pfumelela vadyondzi mikarhi yo hlayanyana ku mbirihata va tirhisa ntila wa xivoni xa masalamusi. Khutaza vadyondzi ku vulavula mayelana na ku ololoxa swiphiqo hi ku mbirihata va10 na va2. Va xiyaxiye ku tiyisisa leswaku va ntlawahata na ku tlhela va ntlawahata va1 ku endla va10 hi mfanelo.

Allow the learners many opportunities to double numbers using the magic mirror line. Encourage learners to talk about how they are solving the problems by doubling the 10s and 1s. Watch them to make sure they group and regroup the 1s correctly to make 10s.



SIKU 2 • DAY 2

Mbirihato Doubling

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

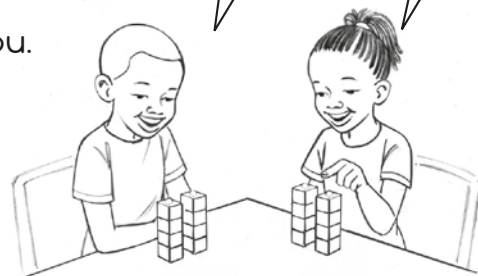
NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

Ntlango: Mbirihata Game: Double

- Mudyondzisi wa wena u vita nomboro.
Your teacher calls a number.
- Aka nomboro u tirhisa tikhiyubu.
Build the number using cubes.
- Sweswi komba mitlawwa yi2 yo ringana. Mbirihata!
Now show 2 equal groups. Double!
- Tikhiyubu tingani?
How many cubes?
- Vula xivulwa lexi xa tinomboro, "4 kambirhi i 8."
Say the number sentence, "Double 4 is 8."



$$2 \times 4 = \text{[cubes]} \quad 2 \times 4 = \underline{8}$$

- 1 Komba u tirhisa swihondzo swa tinomboro. Kutani u ololoxa.
Show using your number towers. Then solve.

$2 \times 3 = \underline{6}$	$2 \times 5 = \underline{10}$	$2 \times 11 = \underline{22}$
$2 \times 12 = \underline{24}$	$2 \times 9 = \underline{18}$	$2 \times 10 = \underline{20}$

- 2 Tata xivulwa xa tinomboro xa xifaniso hi xin'we.
Complete the number sentence for each picture.

	4 kambirhi i 8. Double 4 is 8.	$2 \times 4 = 8$
	_____ kambirhi i _____. Double <u>8</u> is <u>16</u> .	$\underline{2} \times \underline{8} = \underline{16}$

Doubling

Endla onge ntila i xivoni xa masalamusi. Dirowa nomboro ethhelweni rin'we. Yi dirowe nakambe ethhelweni lerin'wana.

Pretend the line is a magic mirror. Draw the number on one side. Draw it again on the other side.



3

4×2

4 × 2 = 8

40×2

40 × 2 = 80

21×2

21 × 2 = 42

3×2

3 × 2 = 6

30×2

30 × 2 = 60

12×2

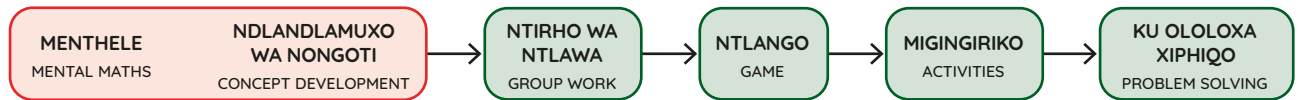
12 × 2 = 24

4 Khakhuleta.

Calculate.

$2 \times 2 = 4$	$3 \times 2 = 6$	$4 \times 2 = 8$	$5 \times 2 = 10$
$20 \times 2 = 40$	$30 \times 2 = 60$	$40 \times 2 = 80$	$50 \times 2 = 100$
$6 \times 2 = 12$	$8 \times 2 = 16$	$10 \times 2 = 20$	$12 \times 2 = 24$
$7 \times 2 = 14$	$9 \times 2 = 18$	$11 \times 2 = 22$	$13 \times 2 = 26$

Mitlawa ya 10



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Xana mudyondzi un'we u ni tintiho tingani?
How many fingers does one learner have?

1

Loko hi ri ni vadyondzi va 7, xana hinkwato hi na tintiho tingani?
So, if we have 7 learners, how many fingers do we have altogether?

2

Ndzi kombe mitlawa ya 7 ya tibuloko ta 10.
Show me 7 groups of 10 blocks.

3

Hi nga komba mitlawa ya 7 ya 10 hi ku tsala xivulwa xa tinomboro xa $7 \times 10 = 70$.
We can show 7 groups of 10 by writing the number sentence $7 \times 10 = 70$.

4

Pfumelela vadyondzi mikarhi yo hlayanyana ku ya emahlweni va tirha hi mitlawa ya 10. Khutaza vadyondzi ku tsala na ku vulavula hi swivulwa swa tinomboro leswaku va kota ku hlulukisa vuswikoti bya vona byo tsala na ku tirha hi swivulwa swa tinomboro swo andzisa.

Allow the learners opportunities to continue working with groups of 10. Encourage learners to write and verbalise the number sentences so that they develop their ability to write and work with multiplication number sentences.



SIKU 3 • DAY 3

Mitlawa ya 10

Groups of 10

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

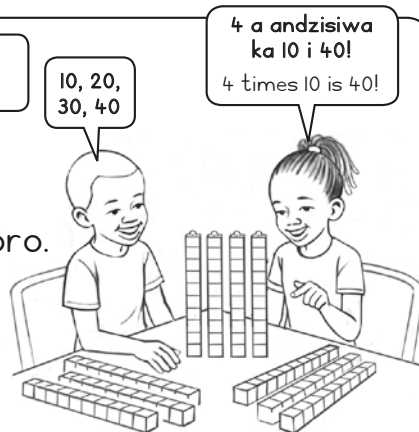
MINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

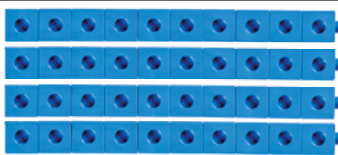
Ntlango: Andzisa hi 10

Game: Multiply by 10

- Lulamisa hi ku aka swihondzo swa 10 swa tibuloko ta 10.
Prepare by building 10 towers of 10 blocks.
- Mudyondzisi wa wena u vita nomboro.
Your teacher calls a number.
- Teka swihondzo leswo tala.
Take that many towers.
- Tikhiyubu tingani?
How many cubes?
- Vula xivulwa lexi xa tinomboro, "4 a andzisiwa ka 10 i 40."
Say the number sentence, "4 times 10 is 40."



$$4 \times 10 =$$

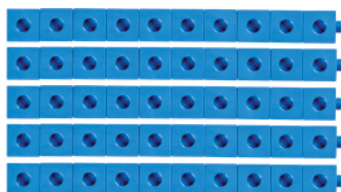


$$4 \times 10 = 40$$

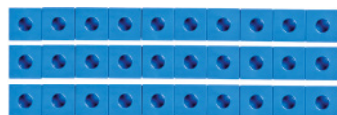
- Komba u tirhisa swihondzo swa tinomboro. Kutani u khakhuleta.
Show using your number towers. Then calculate.

$3 \times 10 = 30$	$5 \times 10 = 50$	$7 \times 10 = 70$
$4 \times 10 = 40$	$9 \times 10 = 90$	$10 \times 10 = 100$

- Tata xivulwa xa tinomboro.
Complete the number sentence.



$$5 \times 10 = 50$$



$$3 \times 10 = 30$$

3



Mabokisi mangani? How many boxes?	5
Tikhirayoni tingani? How many crayons?	50



Mabokisi mangani? How many boxes?	7
Tikhirayoni tingani? How many crayons?	70

										
mabokisi boxes	1	2	3	4	5	6	7	8	9	10
tikhirayoni crayons	10	20	30	40	50	60	70	80	90	100

4



Mabakete mangani? How many buckets?	5
Tilitara tingani? How many litres?	50l



Mabakete mangani? How many buckets?	7
Tilitara tingani? How many litres?	70l

5 Khakhuleta.
Calculate.

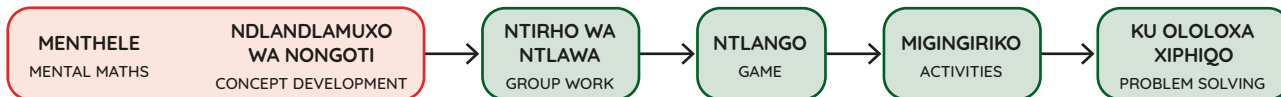
Loko ndzi andzisa hi 10,
ndzi hlalela hi va10.
When I multiply by 10,
I count in 10s.



$3 \times 10 = 30$	$5 \times 10 = 50$	$6 \times 10 = 60$	$2 \times 10 = 20$
$1 \times 10 = 10$	$4 \times 10 = 40$	$8 \times 10 = 80$	$10 \times 10 = 100$



Groups of 5



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

1

Xana ku ni tilolipopu tingani eka xicupu xi 1?
How many lollipops are there in 1 strip?

5

2

Loko hi ri ni swicupu swa 9, xana ku ni tilolipopu tingani?
If we have 9 strips, then how many lollipops are there?

45 hikuva hi ni swicupu swa 9 swa tilolipopu leswi nga na tilolipopu ta 5 eka xicupu hi xin'we.
45, because we have 9 lollipop strips with 5 lollipops in each.

3

Ndzi kombe mitlawa ya 9 ya tibuloko ta 5.
Show me 9 groups of 5 blocks.

5, 10, 15, 20, 25, 30, 35, 40, 45

4

Hi nga komba mitlawa ya 9 ya va5 hi ku tsala xivulwa xa tinomboro xa $9 \times 5 = 45$. Hi ri 9 hi andzisa hi 5 i 45.
We can show 9 groups of 5 by writing the number sentence $9 \times 5 = 45$. We say 9 times 5 equals 45.

Pfumelela vadyondzi mikarhi yo hlayanyana ku ya emahlweni va tirha hi mitlawa ya 5. Khutaza vadyondzi ku tsala na ku vulavula hi swivulwa swa tinomboro leswaku va kota ku hluvukisa vuswikoti bya vona byo tsala na ku tirha hi swivulwa swa tinomboro swo andzisa.

Allow the learners opportunities to continue working with groups of 5. Encourage them to write and verbalise the number sentences so that they develop their ability to write and work with multiplication number sentences.



SIKU 4 • DAY 4

Mitlawa ya 5 Groups of 5

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

Ntlango: Andzisa hi 5 Game: Multiply by 5

- Aka swihondzo swa 10 swa tibuloko ta 5.
Build 10 towers of 5 blocks.
- Mudyondzisi wa wena u vita nomboro.
Your teacher calls a number.
- Teka swihondzo leswo tala.
Take that many towers.
- Tikhiyubu tingani?
How many cubes?
- Vula xivulwa lexi xa tinomboro, "4 a andzisiwa ka 5 i 20."
Say the number sentence, "4 times 5 is 20."



$$4 \times 5 = \text{[4 towers of 5 blocks]} \quad 4 \times 5 = \underline{20}$$

- Komba u tirhisa swihondzo swa wena swa tinomboro. Kutani u khakhuleta.

Show using your number towers. Then calculate.

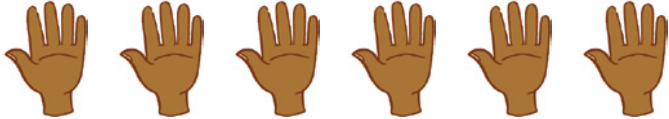
$3 \times 5 = \underline{15}$	$5 \times 5 = \underline{25}$	$7 \times 5 = \underline{35}$
$4 \times 5 = \underline{20}$	$6 \times 5 = \underline{30}$	$10 \times 5 = \underline{50}$

- Tata swivulwa swa tinomboro.

Complete the number sentences.

$\text{[5 towers of 5 blocks]} \times 5 = \underline{25}$	$\text{[3 towers of 5 blocks]} \times 5 = \underline{15}$	$\text{[8 towers of 5 blocks]} \times 5 = \underline{40}$
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Groups of 5

3


Mavoko?
Hands? 6
Tintiho?
Fingers? 30



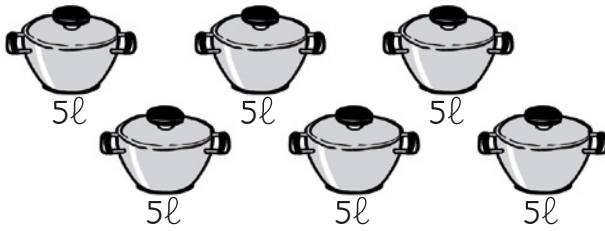
Mavoko?
Hands? 10
Tintiho?
Fingers? 50

4 Tintiho tingani?
How many fingers?

mavoko hands	1	2	3	4	5	6	7	8	9	10
tintiho fingers	5	10	15	20	25	30	35	40	45	50

5


Mapoto mangani?
How many pots? 4
Tilitara tingani?
How many litres? 20l



Mapoto mangani?
How many pots? 6
Tilitara tingani?
How many litres? 30l

6 Khakhuleta.
Calculate.

Loko ndzi andzisa hi 5, ndzi hlayela hi va5. Ndzi tsundzuka leswaku i va5 vangani ndzi tirhisa tintiho ta mina.
When I multiply by 5,
I count in 5s. I keep track of how many 5s using my fingers.



$3 \times 5 = 15$	$5 \times 5 = 25$	$6 \times 5 = 30$	$2 \times 5 = 10$
$1 \times 5 = 5$	$4 \times 5 = 20$	$8 \times 5 = 40$	$10 \times 5 = 50$

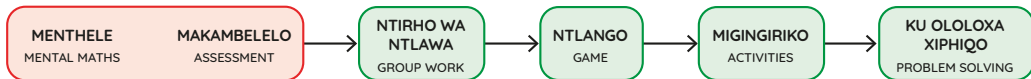
VHIKI • WEEK

4

SIKU 5 • DAY 5

Nkatsakanyo

Consolidation



A hi vulavule hi Matematiki!

Let's talk Maths!

Hi Xinghezi hi ri:

mitlawa leyi ringanaka

N'wana un'we u ni tindleve ti 2.

Vana va5 va ni tindleve ta 10.

Ntlhanu wa mitlawa ya vambirhi i khume.

Ku na 5 wa vambirhi eka 10.

Bakete rin'we ri ni tilitara ta 10.

Mabakete ya 4 ma ni tilitara ta 40.

Mitlawa ya mune ya vakhume i makumemune.

Ku na vakhume va4 eka 40.

In English we say:

equal groups

One child has 2 ears.

5 children have 10 ears.

Five groups of two is ten.

There are 5 twos in 10.

One bucket has 10 litres.

4 buckets have 40 litres.

Four groups of ten is forty.

There are 4 tens in 40.



1 Khakhuleta.

Calculate.

	Tijeke tingani? How many jugs?	9
	Tilitara tingani? How many litres?	18 l

2 Khakhuleta.

Calculate.

$3 \times 5 = \underline{15}$	$7 \times 5 = \underline{35}$	$5 \times 5 = \underline{25}$	$6 \times 5 = \underline{30}$
$9 \times 5 = \underline{45}$	$2 \times 5 = \underline{10}$	$4 \times 5 = \underline{20}$	$8 \times 5 = \underline{40}$

3 Khakhuleta.

Calculate.

$4 \times 10 = \underline{40}$	$6 \times 10 = \underline{60}$	$9 \times 10 = \underline{90}$	$8 \times 10 = \underline{80}$
$7 \times 10 = \underline{70}$	$3 \times 10 = \underline{30}$	$5 \times 10 = \underline{50}$	$2 \times 10 = \underline{20}$

Assessment and consolidation

- 4 Dirowa 10 ku komba 10. Dirowa 1 ku komba 1.

Draw 10 to show 10. Draw 1 to show 1.

36	
52	

- 5 Tlhantlha hi val0 na val.

Break down into 10s and 1s.

78 = 10+10+10+10+10+10+8	53 = 10+10+10+10+10+3
--------------------------	-----------------------

- 6 Ololoxa.

Solve.

$63 + 6 = 69$	$92 + 5 = 97$	$67 + 3 = 70$
$59 - 5 = 54$	$78 - 4 = 74$	$50 - 3 = 47$
$34 + 30 = 64$	$56 - 20 = 36$	$45 + 40 = 85$

- 7

I mani nomboro? What is the number? 43	Tata #Hexithegi! Complete the #Hashtag!	Xaxameta kusakela ka leyitsongo kufikela ka leyikulu. Order from small to big. 15 45 54
---	---	--

- 8

Hafu:	10	5	11	$5\frac{1}{2}$
Half:				
Mbirhihata:	10	20	11	22
Double:				

Ku hlanganisa na ku susa hi mindzhati ya tinomboro

	Switirhisiwa
Menthele: Sungula u veka nomboro leyikulu loko u susa	ku hava
Ntlango: Matematiki lowu hatlisaka wa makhadi – susa eka 10!	makhadi ya tinomboro ta 0–10



Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Ku hlanganisa na ku susa va1 eka tinomboro letikulu	LAB, ndzhati wa tinomboro lowu nga hava nchumu
2	Ku hlanganisa na ku susa va1 eka tinomboro letikulu	LAB, ndzhati wa tinomboro lowu nga hava nchumu
3	A hi hlanganiseni hi hatlisa!	LAB, ndzhati wa tinomboro lowu nga hava nchumu
4	A hi suse hi hatlisa!	LAB, ndzhati wa tinomboro lowu nga hava nchumu
5	Nkatsakanyo na makambelelo yo dyondza	LAB

Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:	✓
hlanganisa na ku susa va1 eka/kusuka eka tinomboro ta tidijiti timbirhi (handle ko tlulela halahaya ka khume) hi ku tirhisa ndzhati wa tinomboro.	
hlanganisa na ku susa va1 eka/kusuka eka tinomboro ta tidijiti timbirhi (u tlulela halahaya ka khume) hi ku tirhisa ndzhati wa tinomboro.	
ololoxa swiphiko hi ku endla khume (ku hlanganisa na ku susa).	

Makambelelo (languta eka tipheji ta le ndzhaku ka xiletelo lexi)

Makambelelo yo tsariwa: Tinomboro, Tioparexini na Vuxaka – Ku hlanganisa na ku susa, na tipatironi

Adding and subtracting with number lines

	Resources
Mental Maths: Put the bigger number first when you subtract	none
Game: Fast Maths with cards – subtract from 10!	number cards 0–10



Day	Lesson activity	Lesson resources
1	Adding and subtracting 1s in bigger numbers	LAB, blank number line
2	Adding and subtracting 1s in bigger numbers	LAB, blank number line
3	Let's add more quickly!	LAB, blank number line
4	Let's subtract more quickly!	LAB, blank number line
5	Consolidation and assessment for learning	LAB

After this week the learner should be able to:	✓
add and subtract ones to/from two-digit numbers (without bridging the ten) using a number line.	
add and subtract ones to/from two-digit numbers (bridging the ten) using a number line.	
solve problems by making a ten (addition and subtraction).	

Assessment (see back pages of this guide)

Written assessment: Numbers, Operations and Relationships – Addition and subtraction and patterns

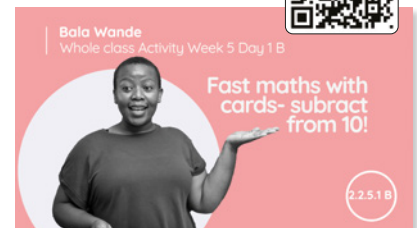
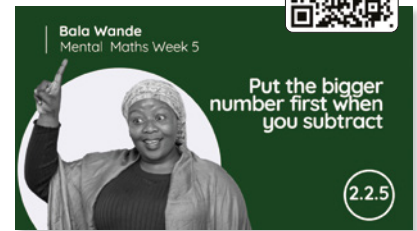
Ku hlanganisa na ku susa hi mindzhati ya tinomboro

Menthele

Vhiki leri hi ta kongomisa eka ku sungula hi veka nomboro leyikulu leswaku hi kota ku ololoxa swiphiko hi ku hetiseka. Vadyondzi va ta kuma leswaku va nga swi kota ku ololoxa swiphiko hi xihatla loko va hlayela ku ya emahlweni kusuka eka nomboro leyikulu.

Ntlango

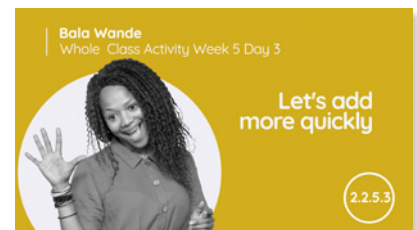
Vhiki leri hi ta tlanga ntlango wa Matematiki lowu hatlisaka wa makhadi – ku susa kusuka eka 10! Vadyondzi va ta titoloveta ku ololoxa swiphiko hi ku tsundzuka timhaka ta tinomboro hi xihatla. Swi na nkoka ku va vadyondzi va kota ku ololoxa swiphiko swo olova hi ku hetiseka leswaku va kota ku nyika masungulo lama nga tiya eka swiphiko swo tika nkarhi lowu nga ta landzela.



Ndlandlamuxo wa nongoti

Vhiki leri hi ta kongomisa eka ku hlanganisa na ku susa hi tirhisa ndzhati wa tinomboro. Vadyondzi va ta ololoxa swiphiko hivumbirhi handle ko tlulela halahaya ka 10 na hi ku tlulela halahaya ka khume. Eka ntirho wa hina wa ku hlanganisa na ku susa, hi ta kongomisa eka:

- ku hlanganisa na ku susa va1 eka/kusuka eka tinomboro ta tidijiti timbirhi (handle ko tlulela halahaya ka khume) hi ku tirhisa ndzhati wa tinomboro
- ku hlanganisa na ku susa va1 eka/kusuka eka tinomboro ta tidijiti timbirhi (u tlulela halahaya ka khume) hi ku tirhisa ndzhati wa tinomboro.
- Ololoxa swiphiko hi ku endla khume (ku hlanganisa na ku susa).



Leswi languteriwaka vhiki leri

- Loko hi endla khume eka swiphiko swa ku hlanganisa, vadyondzi va ta twisisa leswaku swa hatlisa naswona swa olova ku endla khume hi tinomboro 9, 8, 7, na 6.
- Eka ku susa, qhinga ro endla khume ri katsa ku va vadyondzi va tlhelela eka khume la nga hundza. Vadyondzi va fanele ku titoloveta ku susa nomboro leswaku va ta kota ku tlhelela eka khume va nga si hetisa ku ololoxa xiphiko.

Adding and subtracting with number lines

Mental Maths

This week we will focus on putting the bigger number first in order to solve problems efficiently. Learners will discover that they can solve problems more quickly if they count on from the bigger number.

Game

This week we will play Fast Maths with cards – subtract from 10! Learners will practise solving problems quickly by recalling number facts. It is important for learners to be able to solve simple problems efficiently in order to provide a solid foundation for more difficult problems later on.

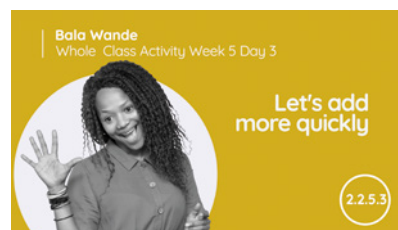
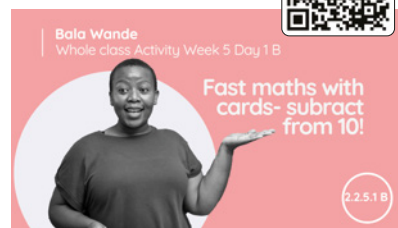
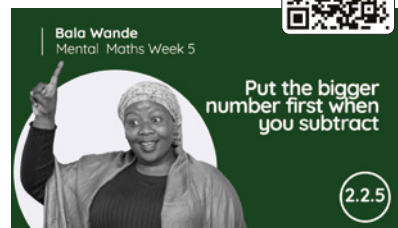
Concept development

This week we focus on addition and subtraction problems using a number line. Learners will solve problems both without bridging 10, and with bridging the ten. In our work on addition and subtraction, we will focus on:

- adding and subtracting ones to/from two-digit numbers (without bridging the ten) using a number line.
- adding and subtracting ones to/from two-digit numbers (bridging the ten) using a number line.
- solving problems by making a ten (addition and subtraction).

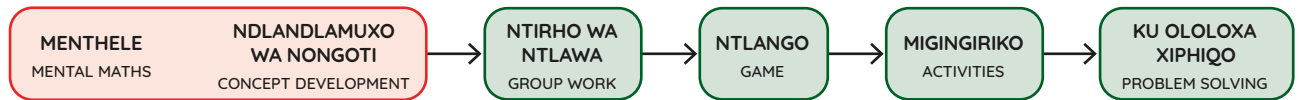
What to look out for this week

- When making a ten for addition problems, learners will realise that it is quicker and easier to make a ten with the numbers 9, 8, 7 and 6.
- For subtraction, the idea of making a ten involves the learners getting back to the previous ten. Learners need to practise subtracting a number so that they can get back to the previous ten before completing the problem.





Ku hlanganisa na ku susa va1 eka tinomboro letikululu



MENTHELE | MENTAL MATHS

Titoloveteni ku hlanganisa leswaku vadyondzi va tsundzuka leswaku swa hatlisa ku hlanganisa hi ku hlayela u ya emahlweni kusuka eka nomboro leyikulunyana.

Practise adding so that learners realise it is quicker to add by counting on from the bigger number.

Tsundzuka ku kamba siku na ku maka rijisitara siku rin'wana na rin'wana.

Remember to check the date and mark the register every day.

1

Hlawula yin'we ya tinomboro leti nga le xitsalelweni.
Choose one of the numbers on the board.

2

Ndzi hlawula 14!
I choose 14!

3

Ndzi ta teka 5!
I'll take 5!

4

U sungula eka 14 u hlayela 5 u ya emahlweni.
You start at 14 and count on 5.

5

U sungula eka 5 u hlayela 14 u ya emahlweni.
You start at 5 and count on 14.

6

19! Ndzi wo sungula ku kuma nhlamulo!
19! I got the answer first!

7

Swa hatlisa ku hlanganisa hi ku hlayela u ya emahlweni ku suka eka nomboro leyikulunyana.
It is quicker to add by counting on from the bigger number.

WEEK 5 • DAY 1

Adding and subtracting 1s in bigger numbers

Migingiriko ya mfuwo • Enrichment activities

Siku 1 • Day 1

Andzisa.

Multiply.

$2 \times 3 = \underline{\quad}$

$2 \times 6 = \underline{\quad}$

$2 \times 2 = \underline{\quad}$

$2 \times 8 = \underline{\quad}$

$2 \times 1 = \underline{\quad}$

$2 \times 10 = \underline{\quad}$

$2 \times 5 = \underline{\quad}$

$2 \times 7 = \underline{\quad}$

$2 \times 9 = \underline{\quad}$

$2 \times 4 = \underline{\quad}$

Siku 2 • Day 2

Andzisa.

Multiply.

$2 \times 3 = \underline{\quad}$

$2 \times 6 = \underline{\quad}$

$2 \times 2 = \underline{\quad}$

$2 \times 8 = \underline{\quad}$

$2 \times 1 = \underline{\quad}$

$2 \times 10 = \underline{\quad}$

$2 \times 5 = \underline{\quad}$

$2 \times 7 = \underline{\quad}$

$2 \times 9 = \underline{\quad}$

$2 \times 4 = \underline{\quad}$

Siku 3 • Day 3

Andzisa.

Multiply.

$10 \times 3 = \underline{\quad}$

$10 \times 6 = \underline{\quad}$

$10 \times 2 = \underline{\quad}$

$10 \times 8 = \underline{\quad}$

$10 \times 1 = \underline{\quad}$

$10 \times 10 = \underline{\quad}$

$10 \times 5 = \underline{\quad}$

$10 \times 7 = \underline{\quad}$

$10 \times 9 = \underline{\quad}$

$10 \times 4 = \underline{\quad}$

Siku 4 • Day 4

Andzisa.

Multiply.

$5 \times 3 = \underline{\quad}$

$5 \times 6 = \underline{\quad}$

$5 \times 2 = \underline{\quad}$

$5 \times 8 = \underline{\quad}$

$5 \times 1 = \underline{\quad}$

$5 \times 10 = \underline{\quad}$

$5 \times 5 = \underline{\quad}$

$5 \times 7 = \underline{\quad}$

$5 \times 9 = \underline{\quad}$

$5 \times 4 = \underline{\quad}$



Ku hlanganisa na ku susa va1 eka tinomboro letikulu

NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

1

A hi hlanganise. $31 + 5$ i swingani?
Let's add. What is $31 + 5$?

Ndza swi tiva! $1 + 5 = 6$ kutani $31 + 5$ ku ta va 36.
I know! $1 + 5 = 6$ and so $31 + 5$ will be 36.

2

A hi tirhise ndzhati wa tinomboro ku kamba nhlamulo.
Let's use the number line to check your answer.

3

Loko ndzi tlula tindhawu ta 5 kusuka eka 31, ndzi wela eka 36. A ndzi tiyisile!
If I jump 5 places from 31, I land on 36. I was right!

4

A hi suse. $48 - 6$ i swingani?
Let's subtract. What is $48 - 6$?

Ndza swi tiva! $8 - 6 = 2$ kutani $48 - 6$ ku ta va 42.
I know! $8 - 6 = 2$, and so, $48 - 6$ will be 42.

5

A hi tirhise ndzhati wa tinomboro ku kamba nakambe.
Let's use the number line to check again.

6

Loko ndzi tlula tindhawu ta 6 ndzi tlhelela endzhaku kusuka eka 48, ndzi wela eka 42. A ndzi tiyisile!
If I jump back 6 places from 48, I land on 42. I was right!

Nyika vadyondzi nkarhi wo hlayanyana ku ololoxa swiphiqo leswi ngenisaka ku hlanganisa na ku susa va1 eka/kusuka eka tinomboro ta tidijiti timbirhi. Va pfune ku tsundzuka leswaku loko va hlanganisa kumbe ku susa va1 handle ko tlulela halahaya ka khume, ndhawu ya va10 a yi hundzuki. Vadyondzi va ta dyondza ku tirhisa vutivi bya vona ku hlanganisa na ku susa va1 ku ololoxa swiphiqo hi xihatla na hi ku hetiseka.

Allow learners multiple opportunities to solve problems that involve adding and subtracting 1s to/from 2-digit numbers. Help them realise that if they add or subtract 1s without bridging the ten, the 10s place does not change. Learners will learn how to use their knowledge of addition and subtraction of 1s to solve problems quickly and efficiently.



Adding and subtracting 1s in bigger numbers

5
 WEEK

SIKU 1 • DAY 1

Ku hlanganisa na ku susa va1 eka tinomboro letikulu
 Adding and subtracting 1s in bigger numbers

 MENTHELE
 MENTAL MATHS

 NDLANDLAMUXO
 WA NONGOTI
 CONCEPT DEVELOPMENT

 NTIRHO WA
 NTLAWA
 GROUP WORK

 NTLANGO
 GAME

 MIGINGIRIKO
 ACTIVITIES

 KU OLOLOXA
 XIPHIQO
 PROBLEM SOLVING

Ntlango: Matematiki lowu hatlisaka wa makhadi - susa eka 10!

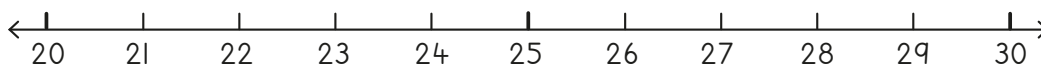
Game: Fast maths with cards – subtract from 10!

- Veka makhadi ya tinomboro ta 0 kufikela ka 10 ma va nyandza.
Place number cards 0 to 10 in a pile.
- Pfula khadi rin'we.
Flip over one card.
- Susa eka 10. Endla nakambe.
Subtract from 10. Do it again.
- Sweswi tirha hi ku hatlisa u heta nyandza.
Now work through the pile faster.


1 Ololoxa. Tirhisa ndzhati wa tinomboro ku ku pfuna.

Solve. Use the number line for help.

$1 + 3 = \underline{4}$	$3 + 4 = \underline{7}$	$5 - 1 = \underline{4}$	$6 - 4 = \underline{2}$
$21 + 3 = \underline{24}$	$23 + 4 = \underline{27}$	$25 - 1 = \underline{24}$	$26 - 4 = \underline{22}$
$25 + 3 = \underline{28}$	$24 + 5 = \underline{29}$	$29 - 3 = \underline{26}$	$28 - 4 = \underline{24}$
$22 + 8 = \underline{30}$	$22 + 6 = \underline{28}$	$28 - 6 = \underline{22}$	$29 - 5 = \underline{24}$


2 Sizwe u ni timabulu ta 29. U nyike munghana wa yena 7. Xana Sizwe u ni timabulu tingani sweswi?

Sizwe has 29 marbles. He gives 7 to his friend. How many marbles does Sizwe have now?

$$29 - 7 = 22$$



Ku hlanganisa na ku susa va1 eka tinomboro letikulu

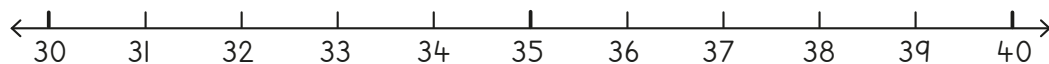
- 3 Ololoxa. Tirhisa ndzhati wa tinomboro ku ku pfuna.

Solve. Use the number line for help.

4 + 6 = 10, kutani 34 + 6 = 40.
4 + 6 = 10, therefore 34 + 6 = 40.
6 - 4 = 2, kutani 36 - 4 = 32.
6 - 4 = 2, therefore 36 - 4 = 32.



30 + 4 = <u>34</u>	35 + 3 = <u>38</u>	39 - 3 = <u>36</u>	34 - 3 = <u>31</u>
32 + 5 = <u>37</u>	36 + 3 = <u>39</u>	37 - 4 = <u>33</u>	40 - 6 = <u>34</u>
33 + 5 = <u>38</u>	34 + 6 = <u>40</u>	40 - 4 = <u>36</u>	36 - 4 = <u>32</u>



- 4 Tatana Jola u ni tihomu ta 32. U xave tin'wana ta 6. Xana u ni tihomu tingani sweswi?

Tata Jola had 32 head of cattle. He bought 6 more. How many cows does he have now?



$$32 + 6 = 38$$

Sanele u tsutsume tikhilomitara ta 38 n'hweti leyi hundzeke. Entle u tsutsume tikhilomitara ta le hansi hi 4. Entle u tsutsume tikhilomitara tingani?

Sanele ran 38 kilometres last month. Entle ran 4 kilometres less. How many kilometres did Entle run?

$$38 - 4 = 34 \text{ km}$$

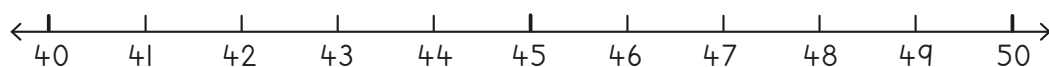
- 5 Ololoxa. Tirhisa ndzhati wa tinomboro ku ku pfuna.

Solve. Use the number line for help.

5 + 4 = 9, kutani 45 + 4 = 49.
5 + 4 = 9, therefore 45 + 4 = 49.
8 - 7 = 1, kutani 48 - 7 = 41.
8 - 7 = 1, therefore 48 - 7 = 41.

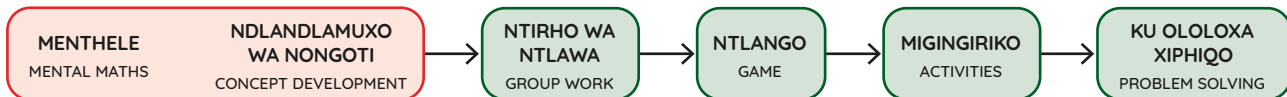


40 + 8 = <u>48</u>	43 + 3 = <u>46</u>	49 - 2 = <u>47</u>	48 - 4 = <u>44</u>
44 + 5 = <u>49</u>	45 + 3 = <u>48</u>	50 - 5 = <u>45</u>	49 - 6 = <u>43</u>
42 + 5 = <u>47</u>	43 + 7 = <u>50</u>	50 - 8 = <u>42</u>	48 - 7 = <u>41</u>



WEEK 5 • DAY 2

Adding and subtracting 1s in bigger numbers



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

1

A hi tirhise ndzhathi wa tinomoro ku khakhuleta $59 + 3$.
Let's use the number line to calculate $59 + 3$.

Xana hi nga khakhuleta njhani $59 + 3$ handle ka ku tirhisa ndzhathi wa tinomoro?
How can we calculate $59 + 3$ without using the number line?

3

Ndzi nga tirha hi ndlela leyi.
I can work it out like this.

5

Loko ndzi tlula tindhawu ta 5 ndzi tthelela endzhaku kusuka eka 64, ndzi wela eka 59.
If I jump back 5 places from 64, I land on 59.

2

Loko ndzi tlula tindhawu ta 3 kusuka eka 59, ndzi wela eka 62.
If I jump 3 places from 59, I land on 62.

A hi tirhise ndzhathi wa tinomoro ku khakhuleta $64 - 5$.
Let's use the number line to calculate $64 - 5$.

4

Xana u nga ololoxa $64 - 5$ handle ka ku tirhisa ndzhathi wa tinomoro?
Could you solve $64 - 5$ without using the number line?

6

Ndzi nga tirha hi ndlela leyi.
I can work it out like this.

Nyika vadyondzi nkarhi wo hlayanyana ku ololoxa swiphiqo leswi ngenisaka ku hlanganisa na ku susa va1 eka/kusuka eka tinomoro ta tidijiti timbirhi. Va nyike mikarhi ya ku endla mikhakhuleto leyi tlulelaka halahaya ka 10 xikan'we na leyi nga tluleliki halahaya ka khume.

Allow learners multiple opportunities to solve problems that involve adding and subtracting 1s to/from 2-digit numbers. Give them opportunities to do calculations that bridge 10 as well as those which do not bridge ten.

Ku hlanganisa na ku susa va1 eka tinomboro letikulu



SIKU 2 • DAY 2

Ku hlanganisa na ku susa va1 eka tinomboro letikulu

Adding and subtracting 1s in bigger numbers

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHISO
PROBLEM SOLVING

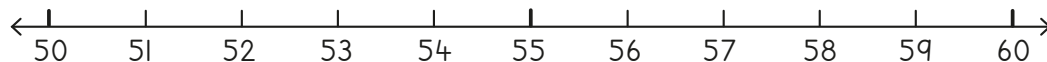
- 1 Ololoxa. Tirhisa ndzhathi wa tinomboro ku ku pfuna.

Solve. Use the number line for help.

$3 + 7 = 10$, kutani $53 + 7 = 60$.
 $7 - 5 = 2$, kutani $57 - 5 = 52$.
 $3 + 7 = 10$, therefore $53 + 7 = 60$.
 $7 - 5 = 2$, therefore $57 - 5 = 52$.



$50 + 4 = 54$	$55 + 3 = 58$	$58 - 2 = 56$	$54 - 4 = 50$
$54 + 5 = 59$	$56 + 2 = 58$	$57 - 5 = 52$	$60 - 3 = 57$



- 2 Sane u hlaye tipheji ta 57 vhiki leri hundzeke. Bella u hlaye tipheji ta le hansi hi 4. Tingani tipheji leti hlayiweke hi Bella?

Sane read 57 pages last week. Bella read 4 pages less. How many pages did Bella read?

$$57 - 4 = 53$$

Khwayere ya xikolo a yi ri ni vana va52 lembe leri hundzeke. Lembe leri yi engeteleke hi vana va 5. Khwayere yi ni vana vangani lembe leri?

The school choir had 52 children last year. This year it has 5 more. How many children are in the choir this year?

$$52 + 5 = 57$$

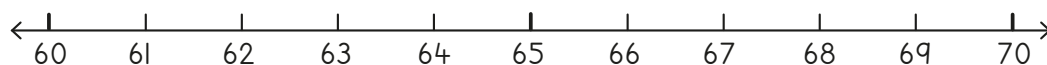
- 3 Ololoxa. Tirhisa ndzhathi wa tinomboro ku ku pfuna.

Solve. Use the number line for help.

$5 + 4 = 9$, kutani $65 + 4 = 69$.
 $8 - 4 = 4$, kutani $68 - 4 = 64$.
 $5 + 4 = 9$, therefore $65 + 4 = 69$.
 $8 - 4 = 4$, therefore $68 - 4 = 64$.



$60 + 8 = 68$	$65 + 4 = 69$	$69 - 2 = 67$	$68 - 4 = 64$
$65 + 5 = 70$	$64 + 3 = 67$	$70 - 5 = 65$	$69 - 6 = 63$



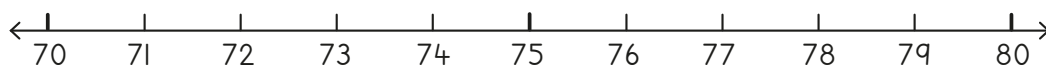
Adding and subtracting 1s in bigger numbers

- 4 Ololoxa. Tirhisa ndzhati wa tinomboro ku ku pfuna. Solve. Use the number line for help.

4 + 6 = 10, kutani 74 + 6 = 80.
6 - 4 = 2, kutani 76 - 4 = 72.
4 + 6 = 10, therefore 74 + 6 = 80.
6 - 4 = 2, therefore 76 - 4 = 72.



70 + 5 = <u>75</u>	76 + 3 = <u>79</u>	80 - 3 = <u>77</u>	74 - 3 = <u>71</u>
72 + 4 = <u>76</u>	75 + 2 = <u>77</u>	77 - 4 = <u>73</u>	80 - 6 = <u>74</u>
75 + 5 = <u>80</u>	74 + 6 = <u>80</u>	80 - 4 = <u>76</u>	76 - 4 = <u>72</u>



- 5 Tumi u khandziye xikanyakanya xa yena tikhilomitara ta 98. Sam u khandziye tikhilomitara ta le hansi hi 5. Sam u khandziye tikhilomitara tingani?

Tumi rode her bicycle for 98 kilometres. Sam rode 5 kilometres less. How many kilometres did Sam ride?

$$98 - 5 = 93 \text{ km}$$

Shona u ni timabulu ta 98. U nyika munghana wa yena timabulu ta 7. Xana u ni timabulu tingani sweswi?

Shona has 98 marbles. He gives 7 to his friend. How many marbles does he have now?

$$98 - 7 = 91$$

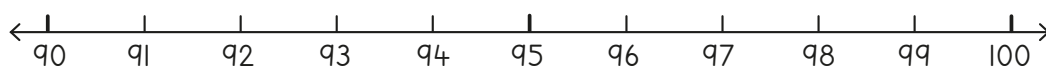


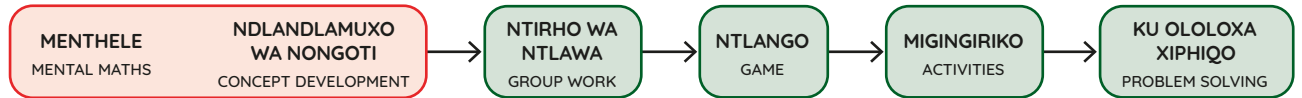
- 6 Ololoxa. Tirhisa ndzhati wa tinomboro ku ku pfuna. Solve. Use the number line for help.

5 + 4 = 9, kutani 95 + 4 = 99.
8 - 7 = 1, kutani 98 - 7 = 91.
5 + 4 = 9, therefore 95 + 4 = 99.
8 - 7 = 1, therefore 98 - 7 = 91.



90 + 8 = <u>98</u>	95 + 3 = <u>98</u>	99 - 2 = <u>97</u>	98 - 4 = <u>94</u>
94 + 5 = <u>99</u>	96 + 3 = <u>99</u>	100 - 5 = <u>95</u>	99 - 6 = <u>93</u>
93 + 5 = <u>98</u>	93 + 7 = <u>100</u>	100 - 8 = <u>92</u>	98 - 7 = <u>91</u>





NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

VHIKI 5 • WEEK 5

1

Hi dyondze leswaku swa olova ku ololoxa swiphiqo hi ku endla vakhume. Loko u yime eka 26, xana u fanele ku tlula kangani ku ya fika eka 10 la landzelaka?

We've learnt that it is easier to solve problems by making a ten. If you're standing on 26, then how many jumps must you take to get to the next 10?

2

Khume la landzelaka i 30. Ndzi tlula ndzi ya emahlweni ka 4 ku ya fika eka 30.

The next ten is 30. I jump 4 places forwards to get to 30.

3

U fanele ku tlula ka 7 naswona se u tlule ka 4. Xana u fanele kutlula kangani nakambe?

You had to jump 7 and you have jumped 4. How many more jumps?

4

Dirowa ku tlula ka wena eka ndzhati wa tinomboro ku komba leswi u swi endleke.

Draw your jumps on the number line to show what you did.

5

Ndzi wela eka 33. I land on 33.

Vuyelela magoza lama nga laha henhla, hi ku tirhisa tinomboro ta ku hambana leswaku vadyondzi va va ni mikarhi yo tala yo titoloveta ku ololoxa swiphiqo swa ku hlenganisa leswi tlulelaka halahaya ka 10.

Repeat the steps above, using different numbers so that learners have multiple opportunities to practise solving addition problems that bridge 10.

VHUKI • WEEK
5

SIKU 3 • DAY 3

A hi hlenganiseni hi hatlisa!

Let's add more quickly!

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

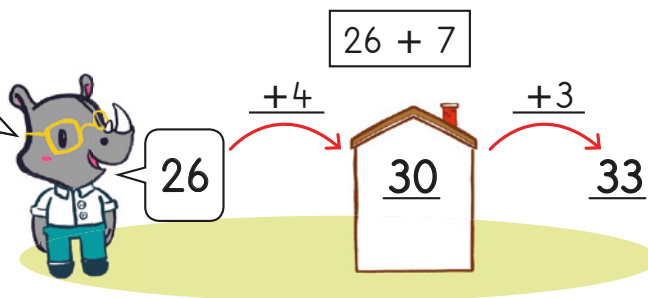
KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

Ndzi sungula ka 26. 10 la landzelaka i 30.
Ndzi tlula ka 4 ku ya eka 30.
Ndzi fanele ndzi hlenganisa 7. Ndzi
hlenganise 4. Ndzi fanele ndzi
hlenganisa swingani nakambe?

I start at 26. The next 10 is 30!

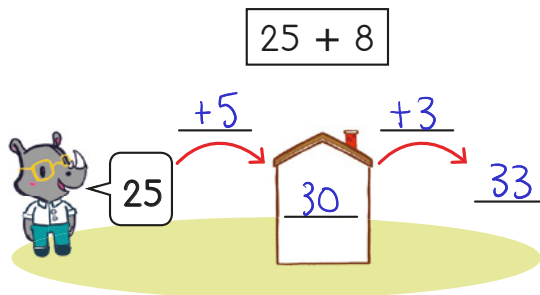
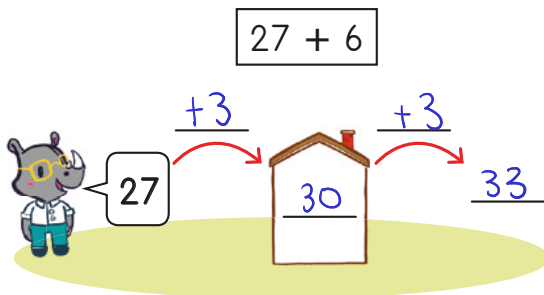
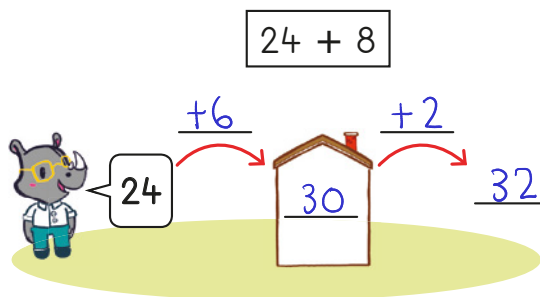
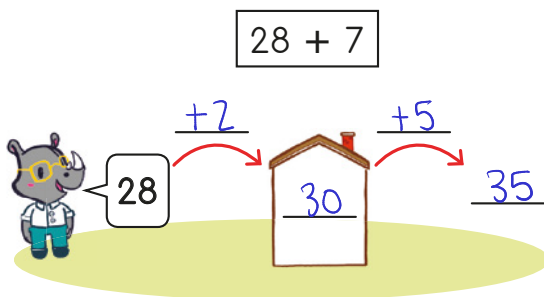
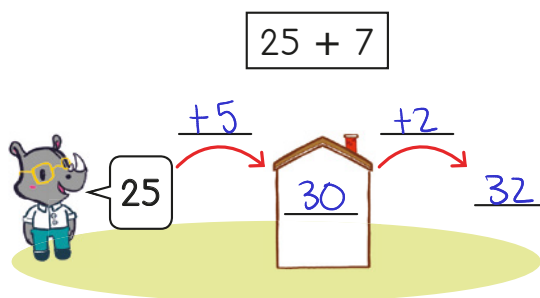
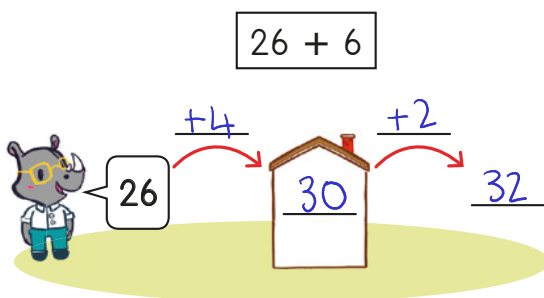
I jump 4 to 30.

I have to add 7. I have added 4.
How much more must I add?



1 Komba leswaku ku hlenganisiwa njhani.

Show how to add.

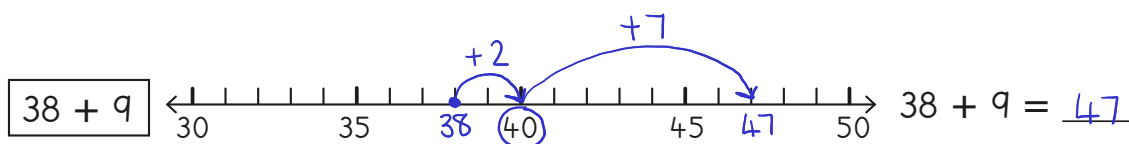
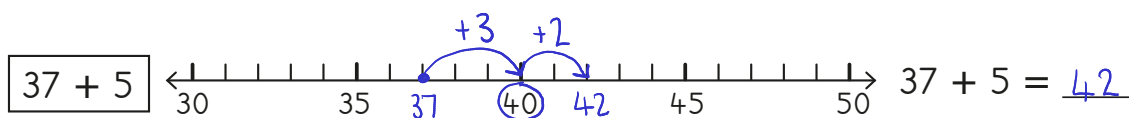
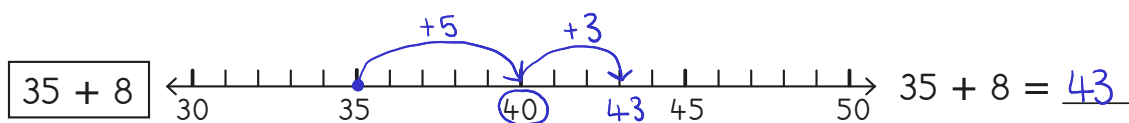
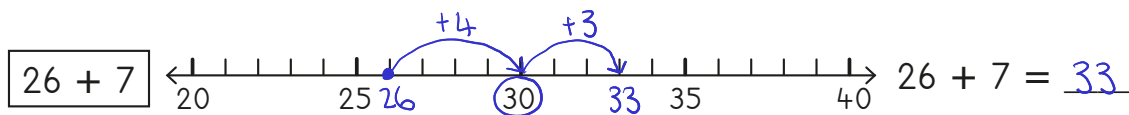
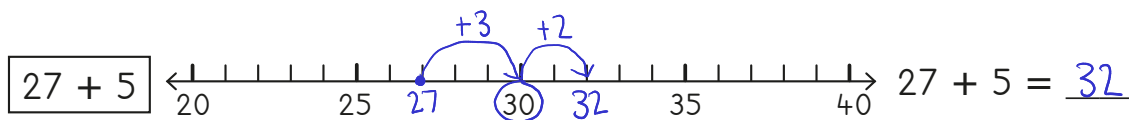
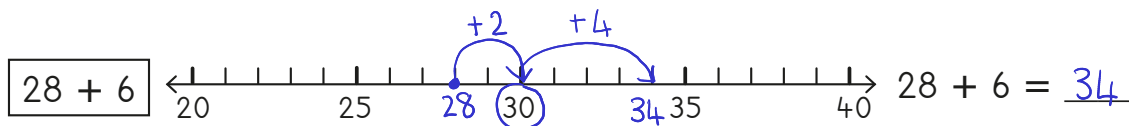
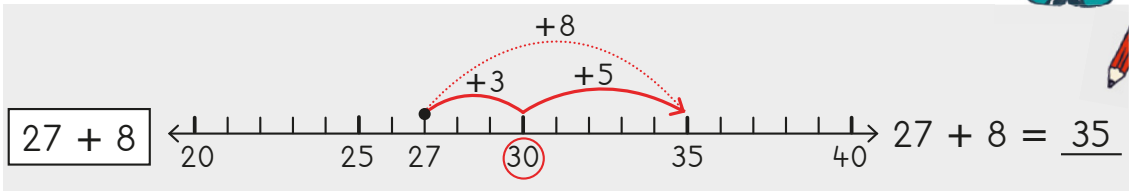


A hi hlanganiseni hi hatlisa!

- 2 Hlanganisa u komba eka ndzhati wa tinomboro.
Add by showing on the number line.

Bana xirhendzevutana eka 10 la landzelaka. Tlulela eka 10 la landzelaka. Ndzi fanele ndzi hlanganisa swingani nakambe?

Circle the next 10. Jump to the next 10. How much more must I add?

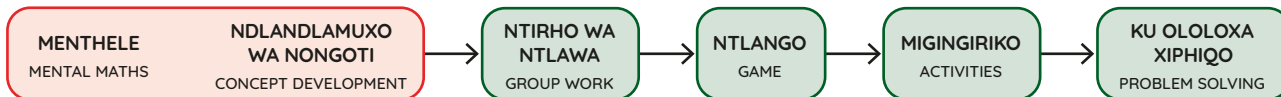


Let's add more quickly!

Week 5 • Day 3

47

Let's subtract more quickly!



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

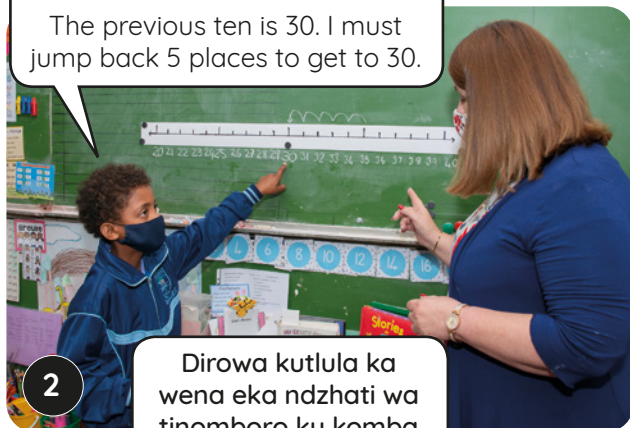


Hi dyondze leswaku swa olova ku ololoxa swiphiqo hi ku susa kusuka eka vakhume. Loko u yime eka 35, xana u fanele kutlula kangani ku tlhelela eka 10 la nga hundza?

We've learnt that it is easier to solve problems by subtracting from ten. If you're standing on 35, then how many jumps must you take to get to the previous 10?

Khume la nga hundza i 30. Ndzi fanele kutlula 5 wa tindhawu ndzi tlhelela endzhaku ku ya fika eka 30.

The previous ten is 30. I must jump back 5 places to get to 30.



Dirowa kutlula ka wena eka ndzhati wa tinomboro ku komba leswi u swi endleke.

Draw your jumps on the number line to show what you did.



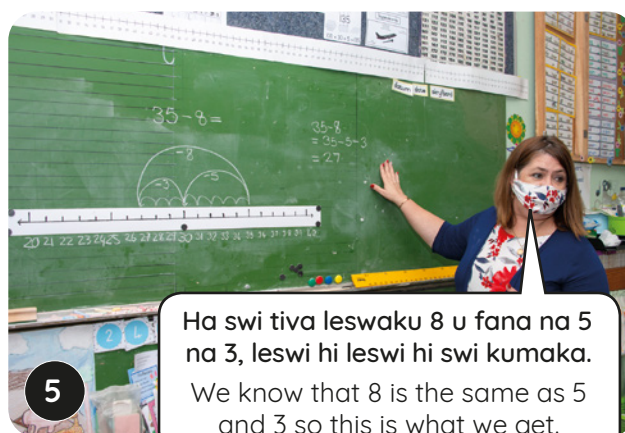
Ndzi wela eka 27.
I land on 27.



U fanele kutlula ka 8 naswona u tlule ka 5. Xana u salele hi kutlula kangani?

You had to jump 8 places and you have already jumped 5. How many more jumps?

Ku tlula kun'wana ka 3
3 more jumps



Ha swi tiva leswaku 8 u fana na 5 na 3, leswi hi leswi hi swi kumaka.

We know that 8 is the same as 5 and 3 so this is what we get.

Vuyelela magoza lama nga laha henhla, hi ku tirhisa tinomboro ta ku hambana leswaku vadyondzi va va ni mikarhi yo tala yo titoloveta ku ololoxa swiphiqo swa ku susa leswi tlulelaka halahaya ka 10.

Repeat the steps above, using different numbers so that learners have multiple opportunities to practise solving subtraction problems that bridge 10.

VHIKI • WEEK 5 SIKU 4 • DAY 4
A hi suseni hi hatlisa!
 Let's subtract more quickly!



$32 - 7$

25 30 32

-5 -2

Ndzi sungula ka 32. 10 la hundzeke i 30.
 Ndzi susa 2 leswaku ndzi ya eka 30.
 Ndzi fanele ndzi susa 7.
 $7 - 2 = 5$
 I start at 32. The previous 10 is 30.
 I subtract 2 to visit the 30.
 I have to subtract 7.
 $7 - 2 = 5$

I Komba leswaku ku susiwa njhani.
 Show how to subtract.

$32 - 7$

25 30 32

-5 -2

$34 - 8$

26 30 34

-4 -4

$35 - 7$

28 30 35

-2 -5

$33 - 9$

24 30 33

-6 -3

$44 - 8$

36 40 44

-4 -4

$45 - 8$

37 40 45

-3 -5

Let's subtract more quickly!

2 Susa u komba eka ndzhati wa tinomboro.

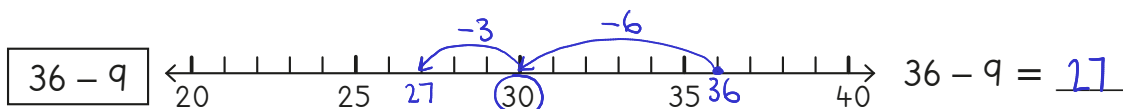
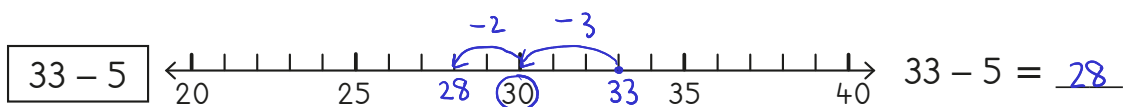
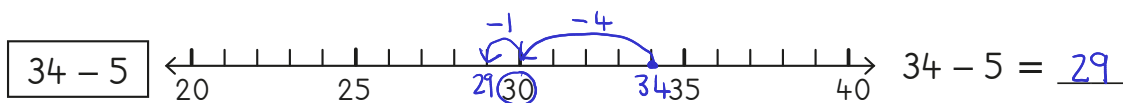
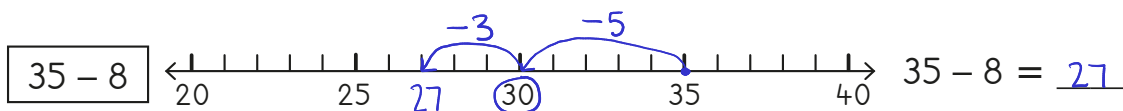
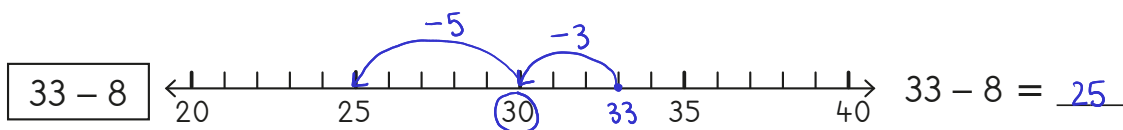
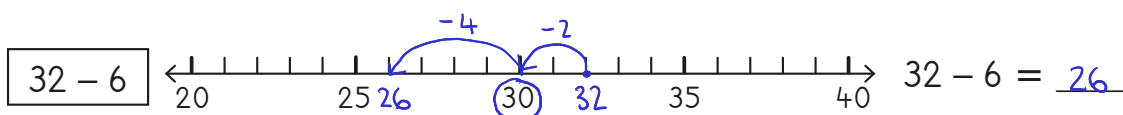
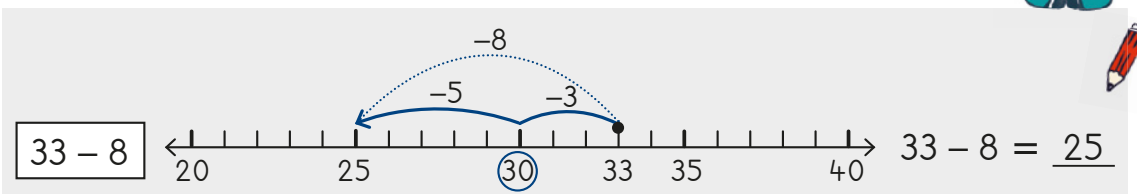
Subtract by showing on the number line.

Sungula ka 33. Bana xirhendzevutana ka 10 la hundzeke. I kule kufikela kwihi ku ya ka 10 la hundzeke? Ndzi fanele ndzi susa swingani nakambe?

Start at 33. Circle the previous 10.

How far to the previous 10?

How much more must I subtract?



Let's subtract more quickly!

Week 5 • Day 4

49



SIKU 5 • DAY 5

Nkatsakanyo Consolidation

MENTHELE
MENTAL MATHS

MAKAMBELELO
ASSESSMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHISO
PROBLEM SOLVING

A hi vulavule hi Matematiki!

Let's talk Maths!



Hi Xinghezi hi ri:

Ku hlenganisa: Swiphemu swimbirhi swa hlangua swi endla nchumu lowu heleleke.

Ku hlenganisa: Tinomboro timbirhi ta hlangua ti endla ntsengo.

Lwazi u hlaya tipheji ta 10.

Sindi u hlaya tipheji ta 20.

Tingani tipheji hinkwato leti va ti hlayaka?

In English we say:

Addition: Two parts come together to make the whole.

Addition: Two numbers come together to make a total.

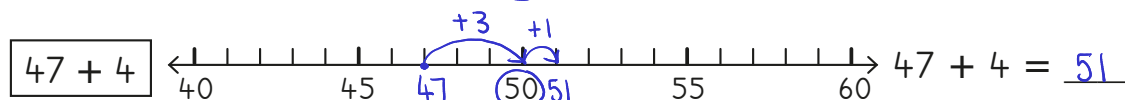
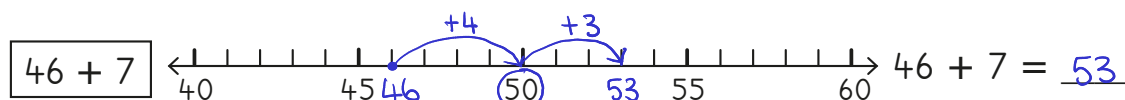
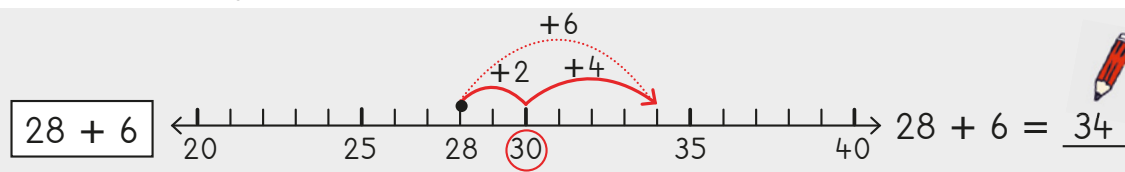
Lwazi reads 10 pages.

Sindi reads 20 pages.

How many pages do they read altogether?

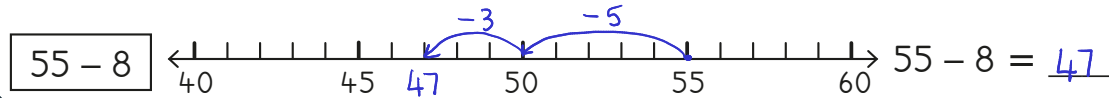
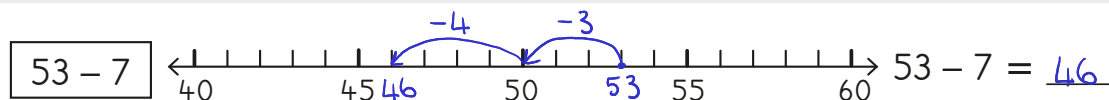
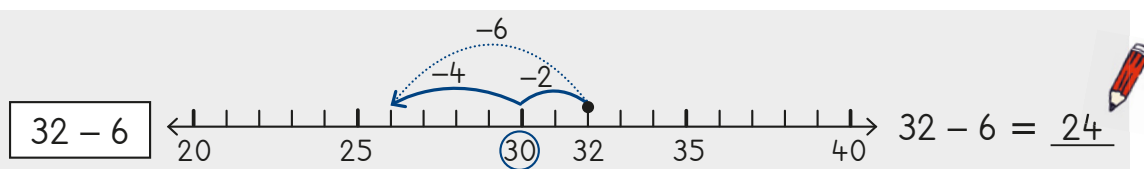
1 Hlenganisa u komba eka ndzhati wa tinomboro.

Add by showing on the number line.



2 Susa u komba eka ndzhati wa tinomboro.

Subtract by showing on the number line.



50

Assessment and consolidation

3	Vana i 3, mahlo mangani? 3 children, how many eyes?	6	Vana i 6, tindleve tingani? 6 children, how many ears?	12
	Swikanyakanya i 4, mavhilwa mangani? 4 bicycles, how many wheels?	8	Vana i 10, mavoko mangani? 10 children, how many hands?	20

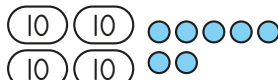
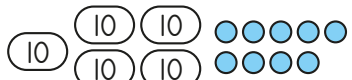
4	 2ℓ 2ℓ 2ℓ 2ℓ	Mabodhlela mangani? How many bottles? Tilitara tingani? How many litres?	4 8ℓ
---	---	---	---------

5	 Lekere rin'we i R2. Ndzi hakela mali muni: One sweet costs R2. How much do I pay for:	
---	--	---

malekere ya 3? 3 sweets?	R6	malekere ya 5? 5 sweets?	R10
malekere ya 6? 6 sweets?	R12	malekere ya 10? 10 sweets?	R20

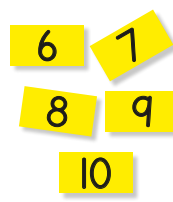
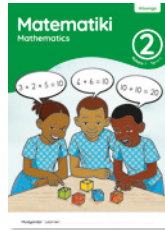
6	 Tingani timali ta swingwece? How many coins? Tingani tirhandi? How many rands?	4 R8
---	--	---------

7	Hafu:				Mbirhahata:			
	Half:				Double:			
	10	5	11	$5\frac{1}{2}$	10	20	11	22
	12	6	13	$6\frac{1}{2}$	12	24	13	26
	14	7	15	$7\frac{1}{2}$	14	28	15	30

8	I mani nomboro? What is the number?
 47	 59

Ntiko

	Switirhisiwa
Menthele: Hlanganisa vakhume!	ku hava
Ntlango: Matematiki wo hatlisa hi makhadi – ku hafula	makhadi ya tinomboro ta 1-20



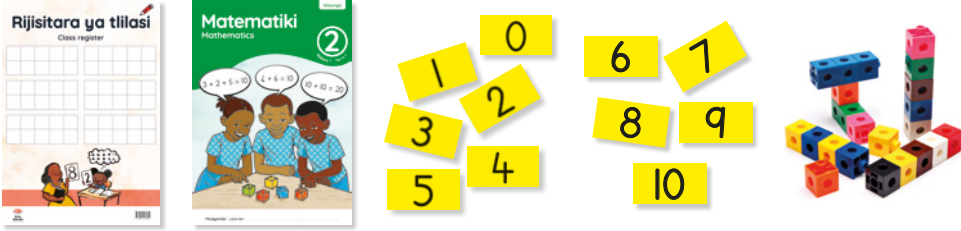
Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Ku pimanisa ntiko	LAB, michumu ya le tlilasini, xikalo xa ndzinganiso xo endliwa ekaya
2	Ku pimanisa ntiko	LAB, michumu ya le tlilasini, xikalo xa ndzinganiso xo endliwa ekaya, tibuloko ta multifix, swo hlayela hi swona
3	Ku pima ntiko	LAB, michumu ya le tlilasini, xikalo xa ndzinganiso xo endliwa ekaya, tibuloko ta multifix, swo hlayela hi swona
4	Ku pima ntiko	LAB, saka ra fulawara ra 1 kg, mabokisi/ maphakete ya swixavisiwa leswi nga na ntiko hi ti-kg, xikalo xa le xihlambelweni
5	Nkatsakanyo na makambeelo yo dyondza	LAB

Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:	✓
tirhisa ririmi leri faneleke ku vulavula hi ku pimanisa ntiko (tika, vevuka, tikanyana, vevukanyana).	
pimanyeta, pima, pimanisa, xaxameta na ku rhekhoda ntiko hi ku tirhisa mipimo yo kala yi nga ri ya ntolovelo tanihi xiphemu xa ku pima ka nkamafundza.	
pimanyeta, pima, pimanisa, xaxameta na ku rhekhoda ntiko hi ku tirhisa tikhilogiramu tanihi yuniti ya ntolovelo ya mpimo.	

Makambeelo (languta eka tipheji ta le ndzhaku ka xiletelo lexi)

Makambeelo yo tsariwa: Mpimo – Ntiko

Mass

		Resources
Mental Maths: Add tens!		none
Game: Fast maths with cards – halve		number cards 1–20
		
Day	Lesson activity	Lesson resources
1	Comparing mass	LAB, classroom items, home-made balance scale
2	Comparing mass	LAB, classroom items, home-made balance scale, multifix blocks, counters
3	Measuring mass	LAB, classroom items, home-made balance scale, multifix blocks, counters
4	Measuring mass	LAB, 1 kg bag of flour, commercial produce boxes/packets with masses in kg, bathroom scale.
5	Consolidation and assessment for learning	LAB

After this week the learner should be able to:	✓
use relevant language to talk about comparison of mass (heavy, light, heavier, lighter).	
estimate, measure, compare, order and record mass using non-standardised measures as part of informal measuring.	
estimate, measure, compare, order and record mass using kilograms as the standard unit of measurement.	

Assessment (see back pages of this guide)

Written assessment: Measurement – Mass

Ntiko

Menthele

Vhiki leri hi ta titoloveta ku hlanganisa swiandzisiwa swa 10 eka nomboro leyi nyikiweke. Mudyondzisi u ta tsala tinomboro ta tidijiti ti2 exitsalelweni kutani a vitanela swiandzisiwa swa 10 ku hlanganisa na nomboro leyi nyikiweke. Vadyondzi va fanele va hlamlula hi ku hatlisa hi laha va kotaka ha kona. Vadyondzi va ta katsakanya leswi va swi dyondzeke mayelana na ku hlanganisa vakhume.

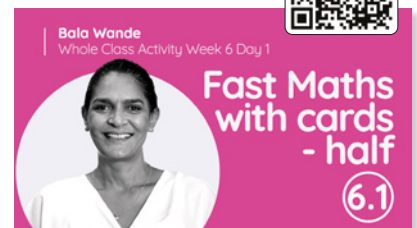
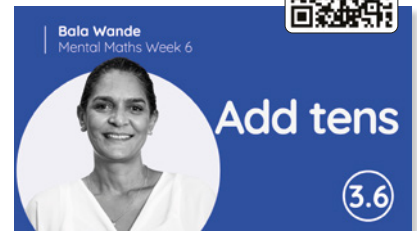
Ntlango

Vhiki leri ntlango wu nyika vadyondzi mikarhi yo hafula tinomboro. Vadyondzi va pfula eka khadi ra 1-20 kutani va hafula nomboro leyi nga kombiwa. Ntlango lowu wu ta pfuna vadyondzi ku titoloveta ku hafula hi xihatla na hi ku olova. Loko u ehleketa leswaku vadyondzi va wena a va si lulamela ku tirha hi ku titshemba ku hafula tinhlayofadzenga, va pfumelele ku tlanga hi tinomborondzingano ntsena.

Ndlandlamuxo wa nongoti

Vhiki leri hi kongomisa eka ku tirha hi tiyuniti leti nga riki ta ntolovelo ku katsakanya ntwisiso wa vadyondzi hi nongoti wa ntiko. Swi tlhela swi va pfuna ku twisisa leswaku hi lava yuniti ya ntolovelo ku pima ntiko. Kutani hi tivisa yuniti ya ntolovelo ya khilogiramu. Vadyondzi va fanele va kota ku hlaya mipimo leyi nyikiwaka hi tikhilogiramu na ku twisisa leswaku swi yimela yini. Hi ta kongomisa eka:

- ku pimanyeta, ku pima, ku pimanisa, ku xaxameta na ku rhekhoda ntiko hi ku tirhisa mipimo yo kala yi nga ri ya ntolovelo tanihi xiphemu xa ku pima ka nkamafundza.
- ku pimanyeta, ku pima, ku pimanisa, ku xaxameta na ku rhekhoda ntiko hi ku tirhisa tikhilogiramu tanihi yuniti ya ntolovelo ya mpimo.



Leswi languteriwaka vhiki leri

- U nga tiendlela xikalo xa wena xa ndzinganiso eka tidyondzo ta ntiko hi ku tirhisa hengara ya swiambalo, ngoti na swibye swimbirhi swa yogati swa pulasitiki.
- Pfuna vadyondzi ku hundza kahle eka dyondzo hinkwayo, kusuka eka ku tirhisa tiyuniti leti nga riki ta ntolovelo ta mpimo ku ya eka ku tivisiwa ka tiyuniti ta ntolovelo. Swi na nkoka ku burisana hi nkoka wa yuniti ya ntolovelo, na ku nyika vadyondzi mikarhi ya ku twisisa hi laha leswi swi nga ta va pfumelela hinkwavo ku kuma mpimo wo fana wa xanchumu.
- Ntivomarito ya nkoka: **vevuka, tika, pima, ntiko, tikanyana kutlula, vevukanyana kutlula, xikalo, khilogiramu.**

Mass

Mental Maths

This week we will practise adding a multiple of 10 to a given number. The teacher writes 2-digit numbers on the board and then calls out a multiple of 10 to add to the given number. Learners must answer as fast as possible. Learners will consolidate what they have learnt about adding tens.

Game

This week the game provides opportunities for the learners to halve numbers. Learners flip over a 1–20 card and then halve the number that is shown. This game will help learners to practise halving quickly and easily. If you think that your learners are not ready to work comfortably with halving odd numbers, let them play with even numbers only.

Concept development

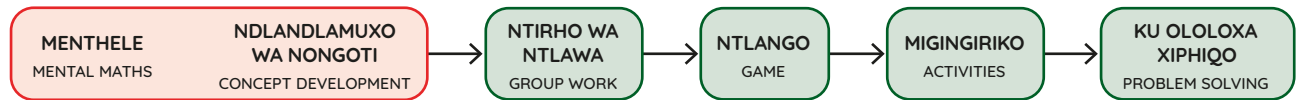
This week we focus on working with non-standard units to consolidate learners' understanding of the concept of mass. It also helps them realise that we need standard units to measure mass. We then introduce the standard unit of a kilogram. Learners should be able to read measurements given in kilograms and understand approximately what they represent. We will focus on:

- estimating, measuring, comparing, ordering and recording mass using non-standardised measures as part of informal measuring.
- estimating, measuring, comparing, ordering and recording mass using kilograms as the standard unit of measurement.



What to look out for this week

- You can make your own balance scale for the lessons on mass by using a coat hanger, string and two plastic yoghurt tubs.
- Help learners to move through the progression of learning, from the use of informal units of measurement through to the introduction of standard units. It is important to discuss the value of the standard unit, and to provide opportunities for learners to realise how this will allow everyone to get the same measurement for an object.
- Important vocabulary: **light, heavy, measure, mass, heavier than, lighter than, scale, kilogram.**



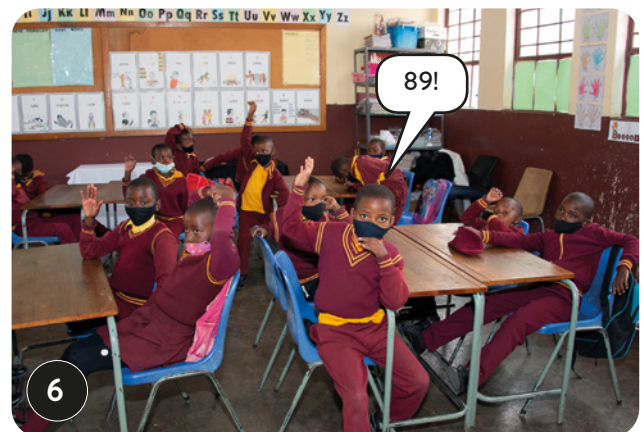
MENTHELE | MENTAL MATHS

Vadyondzi va titoloveta ku hlanganisa xiandzisiwa xa 10 na nomboro leyi nyikiweke.

Learners practise adding a multiple of 10 to a given number.

Tsundzuka ku kamba siku na ku maka rijisitara siku rin'wana na rin'wana.

Remember to check the date and mark the register every day.



WEEK 6 • DAY 1

Comparing mass

Migingiriko ya mfuwo • Enrichment activities

Siku 1 • Day 1

Hlanganisa.

Add.

$37 + 11 = \underline{\quad}$

$21 + 43 = \underline{\quad}$

$45 + 24 = \underline{\quad}$

$60 + 15 = \underline{\quad}$

$18 + 51 = \underline{\quad}$

$58 + 10 = \underline{\quad}$

$42 + 16 = \underline{\quad}$

$24 + 24 = \underline{\quad}$

$15 + 32 = \underline{\quad}$

$33 + 42 = \underline{\quad}$

Siku 2 • Day 2

Hlanganisa.

Add.

$46 + 13 = \underline{\quad}$

$25 + 24 = \underline{\quad}$

$31 + 33 = \underline{\quad}$

$58 + 11 = \underline{\quad}$

$60 + 15 = \underline{\quad}$

$17 + 52 = \underline{\quad}$

$29 + 40 = \underline{\quad}$

$38 + 21 = \underline{\quad}$

$65 + 10 = \underline{\quad}$

$41 + 28 = \underline{\quad}$

Siku 3 • Day 3

Hlanganisa.

Add.

$44 + 21 = \underline{\quad}$

$17 + 52 = \underline{\quad}$

$22 + 36 = \underline{\quad}$

$59 + 10 = \underline{\quad}$

$21 + 38 = \underline{\quad}$

$47 + 11 = \underline{\quad}$

$19 + 40 = \underline{\quad}$

$35 + 23 = \underline{\quad}$

$24 + 44 = \underline{\quad}$

$61 + 14 = \underline{\quad}$

Siku 4 • Day 4

Hlanganisa.

Add.

$21 + 8 = \underline{\quad}$

$37 + 22 = \underline{\quad}$

$26 + 41 = \underline{\quad}$

$52 + 17 = \underline{\quad}$

$48 + 11 = \underline{\quad}$

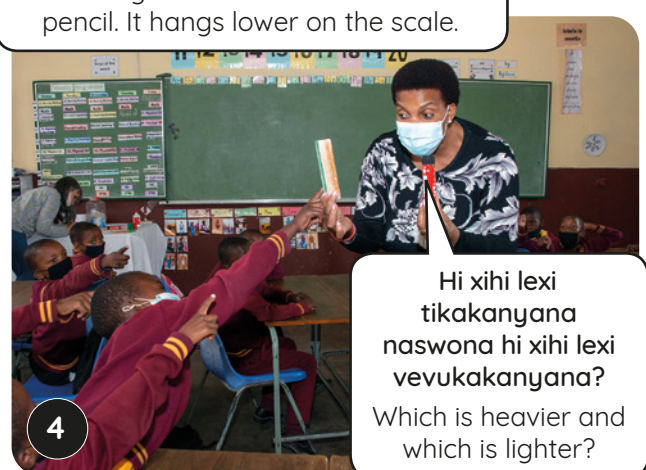
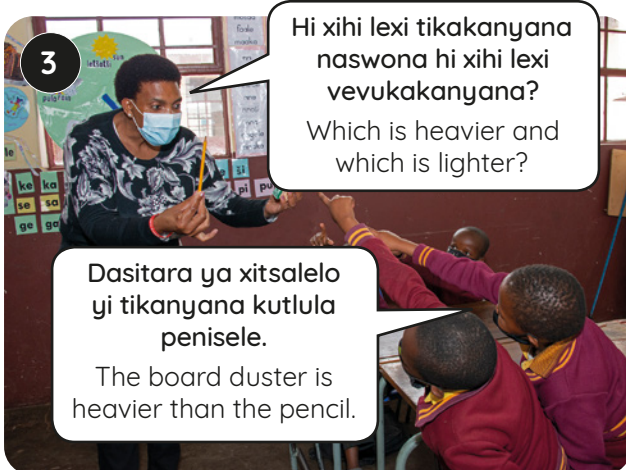
$13 + 53 = \underline{\quad}$

$49 + 20 = \underline{\quad}$

$35 + 32 = \underline{\quad}$

$26 + 42 = \underline{\quad}$

$60 + 15 = \underline{\quad}$



Penisele ya vevukanyana eka dlilu. Naswona dlilu ya vevukanyana eka dasitara ya xitsalelo. Kutani, penisele ya vevukanyana eka dasitara ya xitsalelo.

The pencil is lighter than the glue stick, and the glue stick is lighter than the board duster. So, the pencil is lighter than the board duster.



Nyika vadyondzi mikarhi yo hlayanyana ku pimanisa kutani va pimanisa ntiko wa michumu ya le tllasini hi ku tirhisa xikalo xa ndzinganiso lexi endliweke ekaya. Hlamusela vadyondzi leswaku ku pimanisa michumu yi3 swi endliwa njhani.

Allow the learners multiple opportunities to estimate and then compare the mass of classroom items using the home-made balance scale. Explain to learners how the comparison of mass for 3 items works.



VIHIKI • WEEK
6

SIKU 1 • DAY 1

Ku pimanisa ntiko Comparing mass

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

Ntlango: Matematiki wo hatlisa hi makhadi - ku hafula Game: Fast maths with cards - halve

- Tirhisa makhadi ya wena ya tinomboro ta 0–20.
Use your 0–20 number cards.
- Pfula rin'we. Khakhuleta hafu.
Flip over one card. Calculate half.
- Ringeta nakambe. Hatlisa!
Try again. Faster!



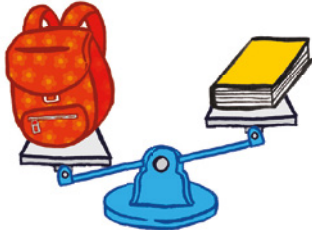
tikanyana
heavier



vevukanyana
lighter

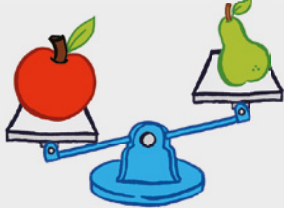
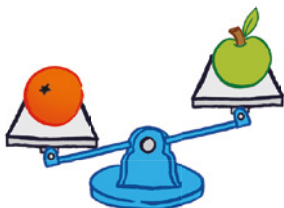
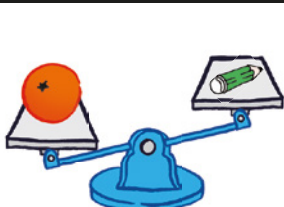
- I** Languta swifaniso kutani u tata marito lama faneleke.
Look at the pictures and fill in the correct words.

vevukaka kutlula lighter than	tikaka kutlula heavier than	fana ni the same as
Xinkwamana xa tipenisele xi tika kutlula apula. The pencil case is <u>heavier than</u> the apple.	Lamula ri _____ apula. The orange is <u>the same as</u> the apple.	
Xinkwamana xa tipenisele xi _____ lamula. The pencil case is <u>heavier than</u> the orange.		

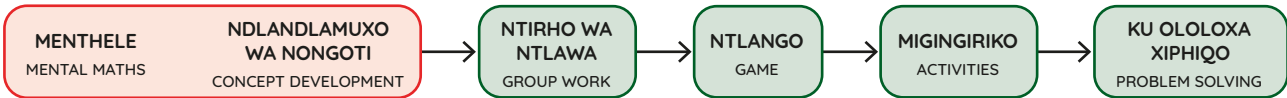
	
Bege yi _____ buku. The bag is <u>heavier than</u> the book.	Xinkwamana xa tipenisele xi _____ buku. The pencil case is <u>lighter than</u> the book.
Xinkwamana xa tipenisele _____ bege. The pencil case is <u>lighter than</u> the bag.	

2 Languta swikalo swa ndzingano kutani u tata rito tika kumbe vevuka.

Look at the balance scales and fill in the word **heavier** or **lighter**.

	Apula ri <u>tika</u> kutlula piyere. Piyere ri <u>vevuka</u> kutlula apula. The apple is <u>heavier</u> than the pear. The pear is <u>lighter</u> than the apple.
	Lamula leri ri _____ kutlula nyiko. Nyiko leyi yi _____ kutlula lamula. The orange is <u>lighter</u> than the gift. The gift is <u>heavier</u> than the orange.
	Apula leri ri _____ kutlula lamula. Lamula ri _____ kutlula apula. The apple is <u>lighter</u> than the orange. The orange is <u>heavier</u> than the apple.
	Lamula leri ri _____ kutlula penisele. Penisele leyi yi _____ kutlula lamula. The orange is <u>heavier</u> than the pencil. The pencil is <u>lighter</u> than the orange.

Comparing mass



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



Khutaza vadyondzi ku lemuka leswaku va kuma mipimo yo hambana loko va tirhisa tiyuniti ta nkamafundza ta mpimo. Va pfune ku vona leswaku loko hi tirhisa tiyuniti to hambana loko hi pima, swa nonoha ku pimanisa mipimo hikuva a hi ya ntolovelo.

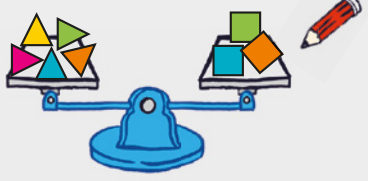
Encourage learners to notice that they get different measurements when they use informal units of measurement. Help them to see that if we use different units when we measure, it is difficult to compare the measurements because they are not standardised.

VHIKI • WEEK 6 SIKU 2 • DAY 2 Ku pimanisa ntiko Comparing mass



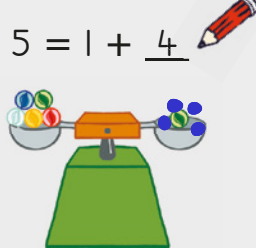
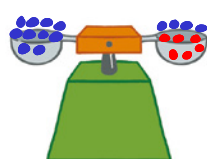
1 Dirowa swivumbeko u ringanisa swikalo.

Draw the shapes to make the scales balance.

	Tiyinhlharhu ta 5 ti ni ntiko wo ringana ni swikwere swi3. 5 triangles have the same mass as 3 squares.
	Switiroberi swa 5 swi ni ntiko wo ringana ni malekere ya 9. 5 strawberries have the same mass as 9 sweets.
	Swikwere swa 4 swi ni ntiko wo ringana ni swirhendzevutana swa 5. 4 squares have the same mass as 5 circles.

2 I timabulu tingani ti nga endlaka xikalo xi ringanana?

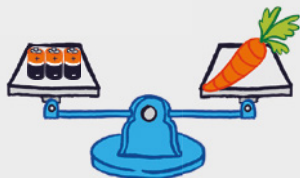
How many marbles will balance the scale?

$5 = 1 + \underline{4}$ 	$6 = 2 + \underline{4}$ 
$3 + \underline{4} = \underline{7}$ 	$10 = \underline{6} + 4$ 

Comparing mass

3 I mani ntiko?

What is the mass?



Ntiko wa kherotsi
= tibetiri ti 3

Carrot mass = 3 batteries



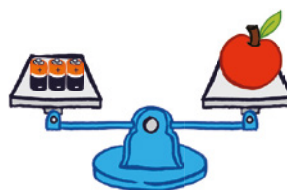
Ntiko wa khandlele
= tibetiri ti 2

Candle mass = 2 batteries



Ntiko wa ximilana
= tibetiri ta 8

Plant mass = 8 batteries



Ntiko wa apula
= tibetiri ti 3

Apple mass = 3 batteries



Ntiko wa kofi
= tibetiri ta 4

Coffee mass = 4 batteries



Ntiko wa khekhe
= tibetiri ta 4

Cupcake mass = 4 batteries

Hi wihi nchumu lowu tikaka swinene? _____

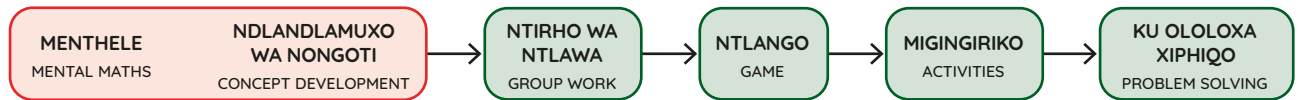
Which object is the heaviest? plant

Pimanisa ntiko wa apula ni wa kherotsi.

Compare the mass of the apple and the mass of the carrot.

they are the same

Ku pima ntiko



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



Hi pimanisile ntiko wa penisele na dilu eka tibuloko ta 10 ta multifix. Penisele a yi vevukanyana, kasi dilu a yi tikanyana. Kutani, ha swi tiva leswaku dilu yi tikanyana kutlula penisele.

We compared the mass of the pencil and the glue to 10 multifix blocks. The pencil was lighter and the glue was heavier. So, we know the glue is heavier than the pencil.

Nyika vadyondzi mikarhi yo hlayanyana ku pima ntiko wa michumu ya le tllasini hi ku yi pimanisa na tibuloko ta multifix eka xikalo xa ndzinganiso lexi endlweke ekaya. Khutaza vadyondzi ku tsundzuka leswaku tibuloko ta multifix a ti nyiki mipimo ya ntiyiso kambe ti pfuneta ku pimanisa.

Provide multiple opportunities for learners to measure the mass of classroom items by comparing them to multifix blocks on the home-made balance scale. Encourage them to realise that the multifix blocks do not provide exact measurements but they enable comparisons.

Measuring mass

6

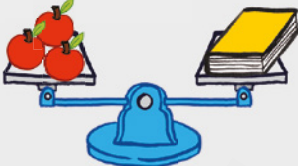
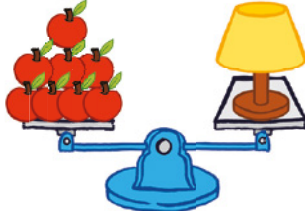
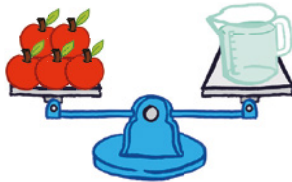
WEEK

SIKU 3 • DAY 3
Ku pima ntiko
 Measuring mass



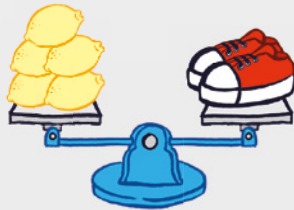
I mani ntiko?

What is the mass?

 Ntiko wa buku = maapula ya <u>3</u> Book mass = <u>3</u> apples	 Ntiko wa rivoni = maapula ya <u>8</u> Lamp mass = <u>8</u> apples
 Ntiko wa xinkwamana xa tipenisele = maapula ya <u>2</u> Pencil case mass = <u>2</u> apples	 Ntiko wa jeke = maapula ya <u>5</u> Jug mass = <u>5</u> apples
 Ntiko wa titeki = maapula ya <u>1</u> Takkies mass = <u>1</u> apple	 Ntiko wa titeki = tibolo ta thenisi ta <u>3</u> Takkies mass = <u>3</u> tennis balls
Hi wihi nchumu lowu vevukaka swinene? _____ Which object is the lightest? <u>takkies</u>	
I yini xi tikaka, i maapula kumbe i tibolo ta thenisi? Which is heavier, the apple or the tennis ball? <u>1 apple is the same as 3 balls</u> <u>(1 apple is heavier than 1 tennis ball)</u>	

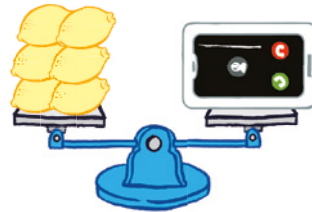
2 I mani ntiko?

What is the mass?



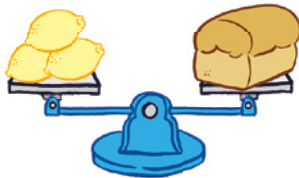
Ntiko wa titeki
= maswiri ya 5

Takkies mass = 5 lemons



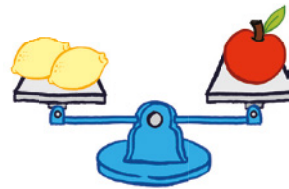
Ntiko wa riqingo
= maswiri ya 6

Phone mass = 6 lemons



Ntiko wa xinkwa
= maswiri ya 3

Bread mass = 3 lemons



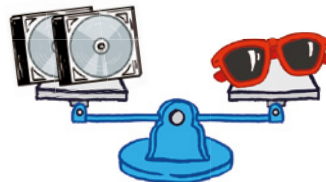
Ntiko wa maapula
= maswiri ya 2

Apple mass = 2 lemons



Ntiko wa manghilazi
ya dyambu
= maswiri ya 1

Sunglasses mass = 1 lemon



Ntiko wa manghilazi
ya dyambu
= maCD ya 2

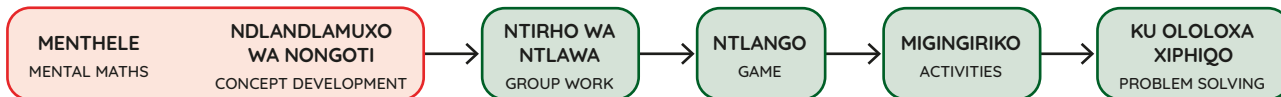
Sunglasses mass = 2 CDs

Hi xihhi xi vevukaka, i xinkwa kumbe i apula?

Which one is lighter, the bread or the apple? apple

Hi xihhi xi tikaka, i swiri kumbe i CD?

Which is heavier, the lemon or the CD? lemon



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Saka ra fulawara ri ni ntiko wa khilogiramu y1.
This bag of flour has a mass of 1 kilogram.



Xaxameta michumu leyi kusuka eka wo vevuka swinene kuya eka wo tika swinene.
Sort these items from lightest to heaviest.



Xana i maphakete mangani lama nga va ka na ntiko wo fana na wa chukele?
How many bags of flour will have the same mass as the sugar?



Ndzi nga swi endla hi ku hlaya tikhilogiramu.
I can do it by reading the kilograms.



Pfumelela vadyondzi mikarhi yo hlayanyana ku pimanisa michumu leyi xavisiwaka, leyi pakiweke leyi nga na ntiko wo hambana hi tikhilogiramu. Loko u ri na xona xikalo xa le xihlambelweni, pfumelela vadyondzi ku siyerisana ku tipima ntiko wa vona kutani va hlalwa leswi tsariweke exikalwini.

Allow learners multiple opportunities to compare commercial packaged items with different kilogram masses. If you have a bathroom scale, let learners take turns to measure their mass and read the scale reading.



SIKU 4 • DAY 4

Ku pima ntiko

Measuring mass

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

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GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

1

Mpimo wa xikalo

Scale reading

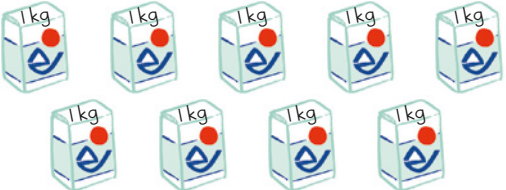
	tika heavy
	vevuka light

	tika kumbe vevuka? heavy or light?
	vevuka
	light
	tika
	heavy
	vevuka
	light
	tika
	heavy
	vevuka
	light

Measuring mass

2

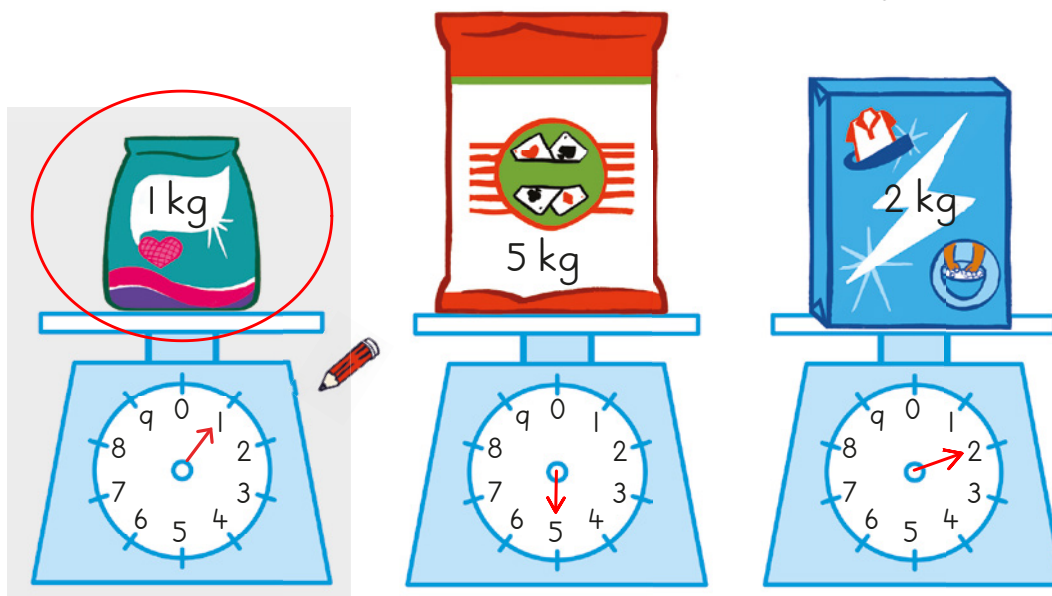
	Swingani swiphutselo? How many packets?	6
	Tingani tikhilogiramu? How many kilograms?	6

	Swingani swiphutselo? How many packets?	9
	Tingani tikhilogiramu? How many kilograms?	9 kg

3

Dirowa timhondzo eswikalweni ku komba ntiko wa swiendlwa leswi. Bana xirhendzevutana eka nchumu lowu vevukaka swinene.

Draw the arms on the scales to show the mass of these products. Circle the lightest item.



4

Jabu u xava 2 kg ya chukele kutani Vusi u xava 5 kg ya chukele. Tingani tikhilogiramu hinkwato ta chukela leti va nga na tona?

Jabu buys 2 kg of sugar and Vusi buys 5 kg of sugar. How many kilograms of sugar do they have altogether?

$$2\text{ kg} + 5\text{ kg} = 7\text{ kg}$$



SIKU 5 • DAY 5

Nkatsakanyo Consolidation

MENTHELE
MENTAL MATHS

MAKAMBELELO
ASSESSMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHISO
PROBLEM SOLVING

A hi vulavule hi Matematiki!

Let's talk Maths!

Hi Xitsonga hi ri:

xikalo xa ndzingano

tika

tikanyana

vevukanyana

fana ni

ntiko

khilogiramu

In English we say:

balance scale

heavy

heavier

lighter

the same as

mass

kilogram



- 1 Languta swikalo swa ndzingano kutani u tata rito tika kumbe vevuka.

Look at the balance scales and fill in the word **heavier** or **lighter**.



Sangweji leyi yi _____ kutlula xikhafuthini.

Xikhafuthini lexi xi _____ kutlula sangweji.

The sandwich is heavier than the strawberry.

The strawberry is lighter than the sandwich.



Bokisi leri ra tikhirayoni _____ kutlula rabara.

Rabara leyi yi _____ kutlula tikhirayoni.

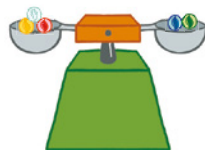
The box of crayons is heavier than the eraser.

The eraser is lighter than the crayons.

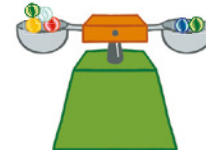
- 2 Tingani timabulu leti nga endlaka xikalo xi ringanana?

How many marbles will balance the scale?

$$5 = 3 + \underline{2}$$



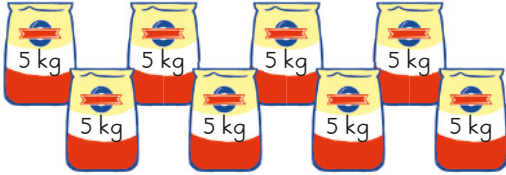
$$6 = \underline{4} + 2$$



Assessment and consolidation

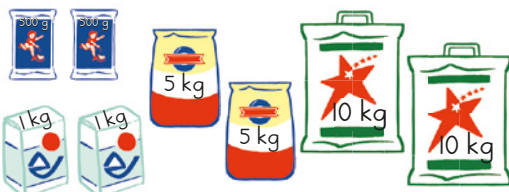
3

	Swingani swiphutselo? How many packets?	4
	Tingani tikhilogiramu? How many kilograms?	20 kg

	Swingani swiphutselo? How many packets?	8
	Tingani tikhilogiramu? How many kilograms?	40 kg

	Swingani swiphutselo? How many packets?	4
	Tingani tikhilogiramu? How many kilograms?	40 kg

	Swingani swiphutselo? How many packets?	7
	Tingani tikhilogiramu? How many kilograms?	70 kg

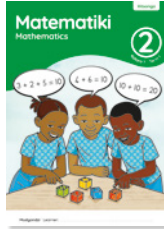
	Swingani swiphutselo? How many packets?	8
	Tingani tikhilogiramu? How many kilograms?	33 kg

4

Ayanda u xava 3 kg ya chukele na 5 kg ya fulawuri. Tingani tikhilogiramu hinkwato? Ayanda buys 3 kg of sugar and 5 kg of flour. How many kilograms altogether? $3\text{ kg} + 5\text{ kg} = 8\text{ kg}$	Sam u xava 4 kg ya chukele na 10 kg ya mugayo. Tingani tikhilogiramu hinkwato? Sam buys 4 kg of sugar and 10 kg of mealie meal. How many kilograms altogether? $4\text{ kg} + 10\text{ kg} = 14\text{ kg}$
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Swivumbeko swa 2-D

	Switirhisiwa
Menthele: Hlanganisa kumbe u susa swiandzisiwa swa 10	ku hava
Ntlango: I kule kufika kwihi ku ya ka 10 la landzelaka?	tibuloko ta multifix



Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Ku vula mavito ya swivumbeko swa 2-D	LAB, phepha ro kala ri nga tsaleriwangi
2	Swivumbeko swa 2-D	LAB
3	Tithangiramu	LAB, xitsemiwa xa thangiramu
4	Swivumbeko swa 2-D	LAB
5	Nkatsakanyo na makambeleso yo dyondza	LAB

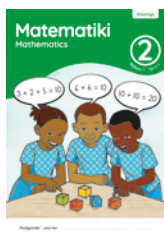
Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:	✓
tiva loko swivumbeko swa 2-D swi ri na matlhelo yo ololoka kumbe matlhelo ya xirhendzevutana.	
hambanisa exikarhi ka swihlawulekisi leswi hlamuselaka na leswi nga hlamuseriki swivumbeko.	
tirhisa swivumbeko swa masungulo ku vumba swivumbeko leswi hlanganisiweke (tithangiramu).	
tiva na ku xaxameta swivumbeko swa 2-D hi mavito tiyinhlanharhu, tiyinhlamune, swikwere na swirhendzevutana.	

Makambeleso (languta eka tipheji ta le ndzhaku ka xiletelo lexi)

Makambeleso yo tsariwa: Swivumbeko swa 2-D na tipatironi ta xijometiri

2-D shapes

	Resources
Mental Maths: Add or subtract multiples of 10	none
Game: How far to the next 10?	multifix blocks



Day	Lesson activity	Lesson resources
1	Naming 2-D shapes	LAB, sheet of blank paper
2	2-D shapes	LAB
3	Tangrams	LAB, tangram cut out
4	2-D shapes	LAB
5	Consolidation and assessment for learning	LAB

After this week the learner should be able to:	✓
identify whether 2-D shapes have straight or round sides.	
differentiate between defining and non-defining attributes of shapes.	
use basic shapes to create composite shapes (tangrams).	
identify and sort 2-D shapes by naming triangles, rectangles, squares and circles.	

Assessment (see back pages of this guide)

Written assessment: 2-D shapes and geometric patterns

Swivumbeko swa 2-D

Menthele

Vhiki leri hi ya emahlweni hi titoloveta ku hlanganisa na ku susa swiandzisiwa swa 10 kufikela ka 100. Tsala tinomboro ta tidijiti timbirhi ta ku hambana exitsalelweni kutani u nyika xileriso xa ku hlanganisa kumbe ku susa nomboro yo karhi ya 10. Endla leswaku vadyondzi va teka xiave eka leswi hi ku va kombela hi vambirhimbirhi ku vitanela tinomboro ta tidijiti ti2 na tinomboro leti va faneleke ku ti hlanganisa/ku susa. Khutaza vadyondzi ku ololoxa swiphiqo hi xihatla na hi ku hetiseka hi ku tsundzuka tibondi leti va ti dyondzeke hi tinomboro.

Ntlango

Eka ntlango lowu, vadyondzi va vitanela tinomboro na ku tiva khume la landzelaka. I swa nkoka leswaku vadyondzi va hluvukisa ntwisiso lowunene wa nomboro na ku kota ku tiva vakhume hi xihatla na hi ku hetiseka.



Ndlandlamuxo wa nongoti

Vhiki leri hi kongomisa eka swivumbeko swa 2-D. Vadyondzi va ta lavisisa swihlawulekisi swa swivumbeko na ku swi tiva hi mfanelo. Vadyondzi va ta tlhela va vita mavito ya tiyinhlanharhu, tiyinhlamune, swikwere na swirhendzevutana hi mfanelo. Vadyondzi va ta va ni nkarhi wo vumba swivumbeko leswi hlanganisiweke swa swiphazamiso swa tithangiramu. Eka ntirho wa hina wa swivumbeko swa 2-D, hi ta kongomisa eka:

- ku tiva loko swivumbeko swa 2-D swi ri ni matlhelo yo ololoka kumbe matlhelo ya xirhendzevutana.
- ku hambanisa exikarhi ka swihlawulekisi leswi hlamuselaka na leswi nga hlamuseriki swivumbeko.
- ku tirhisa swivumbeko swa masungulo ku vumba swivumbeko leswi hlanganisiweke (tithangiramu).
- ku tiva na ku veketela swivumbeko swa 2-D hikuya hi mavito tiyinhlanharhu, tiyinhlamune, swikwere na swirhendzevutana.



Leswi languteriwaka vhiki leri

- Swi na nkoka ku pfumelela vadyondzi ku nghenelela eka mikanerisano mayelana na swivumbeko na ku va nyika nkarhi ku vona swivumbeko swo hambana ku ya hi tisayizi na mihlovo.
- Khutaza vadyondzi ku hambanisa exikarhi ka swihlawulekisi leswi hlamuselaka na leswi nga hlamuseriki, hambileswi swi nga bohiki ku va vadyondzi va tiva marito lawa.

2-D shapes

Mental Maths

This week we continue practicing adding and subtracting multiples of ten up to 100. Write different 2-digit numbers on the board and call out an instruction to add or subtract a certain number of 10. Make this more interactive by asking pairs of learners to call out the 2-digit numbers and the numbers to add/subtract. Encourage learners to solve problems quickly and efficiently by remembering their learnt number facts.

Game

In this game learners call out numbers and identify the tens that follow them. Learners will also work out how far it is to the next ten. It is important for learners to develop a good understanding of number, and to be able to identify tens quickly and efficiently.



Concept development

This week we focus on 2-D shapes. Learners will investigate the attributes of shapes, and they will identify them accordingly. Learners will also correctly name triangles, rectangles, squares and circles. Learners will have the opportunity to create composite shapes as they build tangram puzzles.

In our work on 2-D shapes, we will focus on:

- identifying whether 2-D shapes have straight or round sides.
- differentiating between defining and non-defining attributes of shapes.
- using basic shapes to create composite shapes (tangrams).
- identifying and sort 2-D shapes by naming triangles, rectangles, squares and circles.

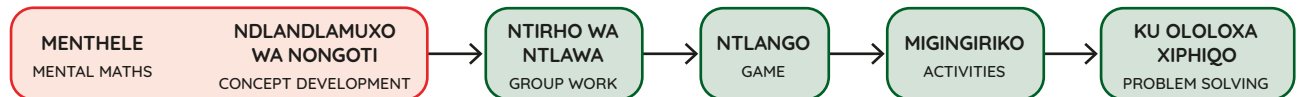


What to look out for this week

- It is important to allow children to engage in discussion about the shapes, and to provide them with multiple opportunities to see shapes of different sizes and colours.
- Encourage learners to differentiate between defining and non-defining attributes, although it is not necessary for learners to know these terms specifically.



Ku vula mavito ya swivumbeko swa 2-D



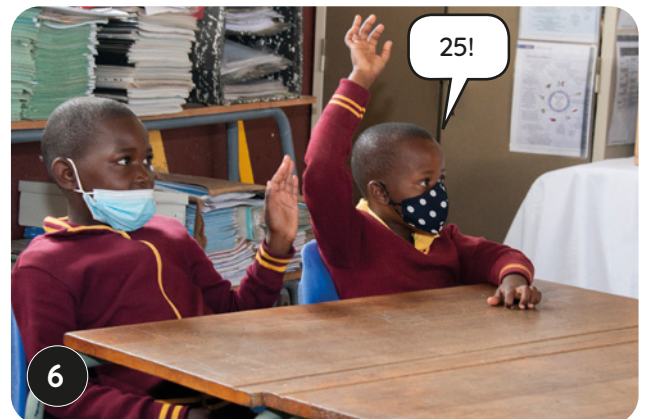
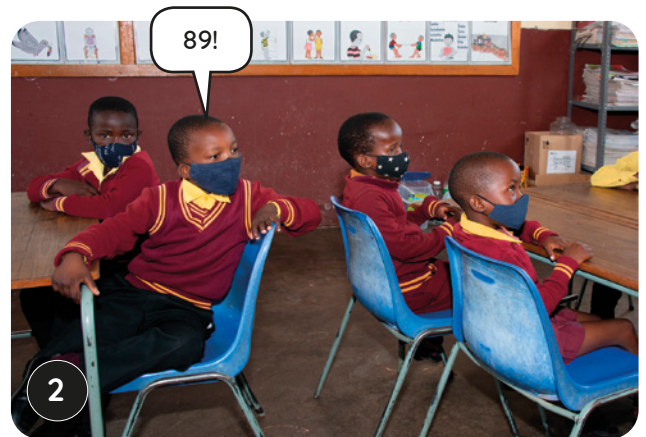
MENTHELE | MENTAL MATHS

Vadyondzi va titoloveta ku hlanganisa na ku susa swiandzisiwa swa khume eka/kusuka eka nomboro leyi nyikiweke.

Learners practise adding and subtracting multiples of ten to/from a given number.

Tsundzuka ku kamba siku na ku maka rijisitara siku rin'wana na rin'wana.

Remember to check the date and mark the register every day.



Naming 2-D shapes**Migingiriko ya mfuwo • Enrichment activities****Siku 1 • Day 1**

Kuma nhlamulo hi ku tirhisa tibuloko.

Solve using blocks.

$$43 + 46 = \underline{\quad}$$

$$35 + 24 = \underline{\quad}$$

$$61 + 34 = \underline{\quad}$$

$$18 + 61 = \underline{\quad}$$

$$52 + 14 = \underline{\quad}$$

$$65 - 24 = \underline{\quad}$$

$$95 - 31 = \underline{\quad}$$

$$39 - 17 = \underline{\quad}$$

$$87 - 44 = \underline{\quad}$$

$$55 - 10 = \underline{\quad}$$

Siku 2 • Day 2

Kuma nhlamulo hi ku tirhisa tibuloko.

Solve using blocks.

$$71 + 22 = \underline{\quad}$$

$$14 + 85 = \underline{\quad}$$

$$37 + 32 = \underline{\quad}$$

$$52 + 43 = \underline{\quad}$$

$$22 + 52 = \underline{\quad}$$

$$96 - 65 = \underline{\quad}$$

$$39 - 16 = \underline{\quad}$$

$$48 - 36 = \underline{\quad}$$

$$83 - 52 = \underline{\quad}$$

$$75 - 44 = \underline{\quad}$$

Siku 3 • Day 3

Kuma nhlamulo hi ku tirhisa tibuloko.

Solve using blocks.

$$53 + 32 = \underline{\quad}$$

$$28 + 71 = \underline{\quad}$$

$$72 + 25 = \underline{\quad}$$

$$64 + 33 = \underline{\quad}$$

$$41 + 18 = \underline{\quad}$$

$$95 - 41 = \underline{\quad}$$

$$45 - 23 = \underline{\quad}$$

$$79 - 37 = \underline{\quad}$$

$$67 - 54 = \underline{\quad}$$

$$86 - 60 = \underline{\quad}$$

Siku 4 • Day 4

Kuma nhlamulo hi ku tirhisa tibuloko.

Solve using blocks.

$$61 + 16 = \underline{\quad}$$

$$24 + 55 = \underline{\quad}$$

$$37 + 42 = \underline{\quad}$$

$$12 + 83 = \underline{\quad}$$

$$54 + 31 = \underline{\quad}$$

$$95 - 31 = \underline{\quad}$$

$$79 - 47 = \underline{\quad}$$

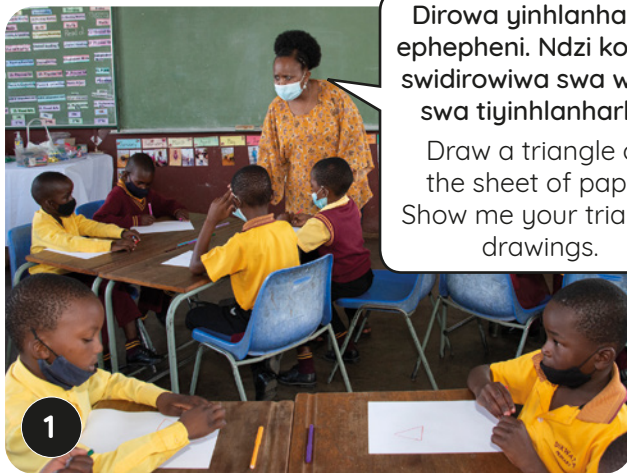
$$39 - 15 = \underline{\quad}$$

$$56 - 24 = \underline{\quad}$$

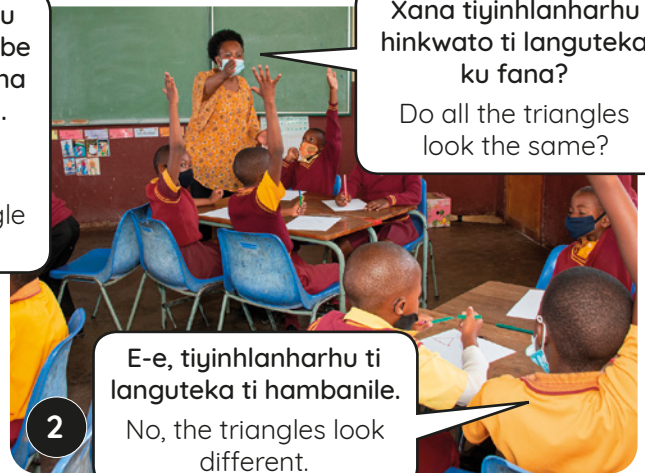
$$82 - 51 = \underline{\quad}$$



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



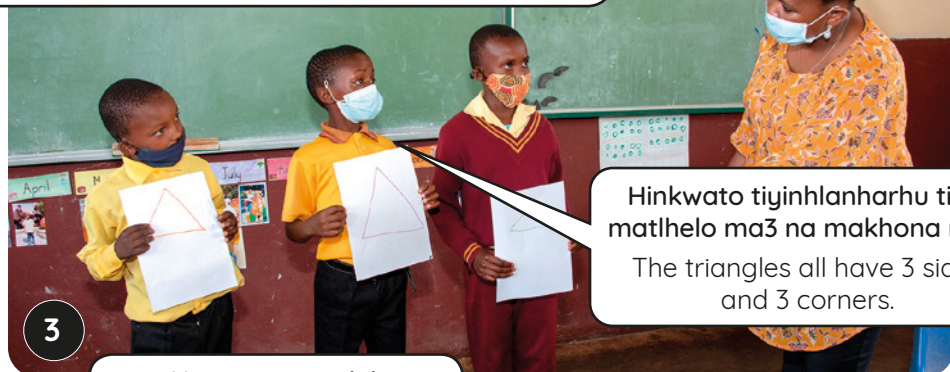
Dirowa yinhlanharhu ephepheni. Ndzi kombe swidirowiwa swa wena swa tiyinhlanharhu.
Draw a triangle on the sheet of paper. Show me your triangle drawings.



Xana tiyinhlanharhu hinkwato ti languteka ku fana?
Do all the triangles look the same?

E-e, tiyinhlanharhu ti languteka ti hambanile.
No, the triangles look different.

Xana i yini leswi u swi vonaka swi fana eka swidirowiwa leswi?
What can you see that is the same in these drawings?



Hinkwato tiyinhlanharhu ti na tisayizi ta ku hambana na mihlovo yo hambana.

The triangles are all different sizes and different colours.

Hinkwato tiyinhlanharhu ti na matlhelo ma3 na makhona ma3.
The triangles all have 3 sides and 3 corners.

Xana u vona yini leswi hambanaka eka swidirowiwa leswi?
What can you see that is different in these drawings?



A hi ehlekteni hi tiyinhlamune, swirhendzevutana na swikwere.
Let's think about rectangles, circles and squares as well.

Vuyelesa magoza lama nga laha henhla eka swikwere, swirhendzevutana na tiyinhlamune. Nyika vadyondzi nkarhi wo vulavula hi leswi fanaka na leswi hambanaka eka swivumbeko leswi va nga swi dirowa.

Repeat the steps above for squares, circles and rectangles. Give the learners opportunities to speak about what is the same and what is different about the shapes they have drawn.

Naming 2-D shapes



SIKU 1 • DAY 1

Ku vula mavito ya swivumbeko swa 2-D Naming 2-D shapes

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

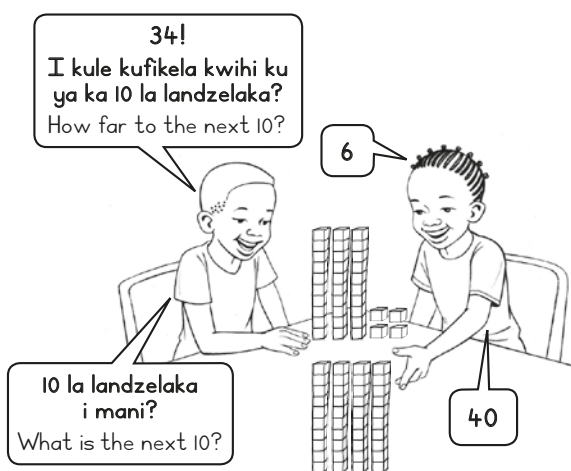
MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

Ntlango: I kule kufikela kwihi ku ya ka 10 la landzelaka?

Game: How far to the next 10?

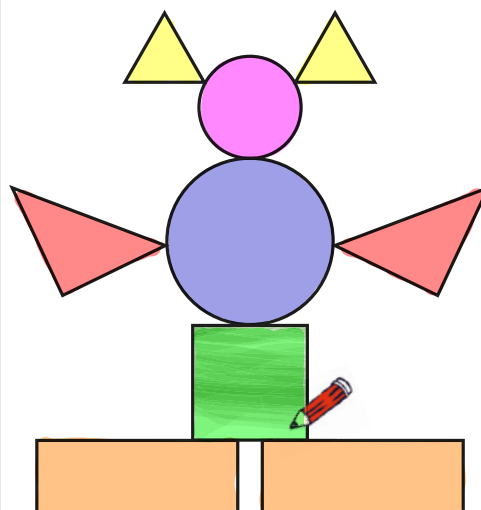
- Tirhani hi vambirhi.
Work in pairs.
- Hlawula nomboro.
Choose a number.
- 10 la landzelaka i mani?
What is the next 10?
- I kule kufikela kwihi ku ya ka 10 la landzelaka?
How far to the next 10?
- Endla nakambe!
Do it again!



1 Nyika mavito ya swivumbeko leswi u swi khalaria.

Name and colour these shapes.

☐	xikwere square	rihlaza green
☐	circle	pinki pink
☐	triangle	tshwuka red
☐	circle	wasi blue
☐	triangle	xitshopana yellow
☐	rectangle	xilamula orange



Ku vula mavito ya swivumbeko swa 2-D

- 2** Dirowa mindzhati u yelanisa swivumbeko swa 2-D eka mavito lama faneleke.

Draw lines to match the 2-D shapes with the correct names.





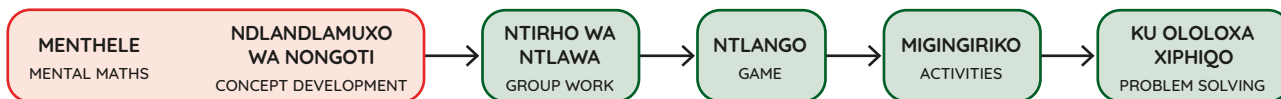

xirhendzevutana
circle
 yinhlamune
rectangle
 xikwere
square
 yinhlanharhu
triangle

- 3** Tsema swivumbeko eka pheji 103 kutani u swi namarheta swi yelana ni mavito lama faneleke.

Cut out the shapes on page 103 and paste them to match the correct names.

xirhendzevutana circle circle pasted	yinhlanharhu triangle triangle pasted
xikwere square square pasted	yinhlamune rectangle rectangle pasted

2-D shapes



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

1

Languta swikwere exitsalelweni. Xana u lemuka yini mayelana na swikwere?

Look at the squares on the board.
What do you notice about the squares?

Swikwere swi na 4 wa matlhelo yo ololoka na tikhona ta 4.

The squares have 4 straight sides and 4 corners.

2

I ntiyiso. Ha swi tiva leswaku xivumbeko lexi i xikwere hikuva xi na 4 wa matlhelo yo ololoka lama ringanaka hi ku leha.

That's correct. We know that this shape is a square because it has 4 straight sides that are the same length.

3

Xana mi lemuka yini swin'wana mayelana na swikwere?

What else do you notice about the squares?

Swikwere swi na tisayizi to hambana.

The squares are different sizes.

Swikwere swi ni mihlovo yo hambana.

The squares are different colours.

4

I ntiyiso. Kambe swilo leswi a swi hi byeli leswaku xivumbeko lexi i xikwere. Swo hi byela swo tala ntsena hi xivumbeko.

That's correct. But these things don't tell us that the shape is a square. They just tell us more about the shape.

Vugelela magoza lama nga laha henhla eka tiyinhlamune, swirhendzevutana na tiyinhlanharhu. Nyika vadyondzi nkarhi wo vulavula hi leswi fanaka na leswi hambanaka eka swivumbeko leswi va nga swi dirowa.

Repeat the steps above for rectangles, circles and triangles. Give the learners opportunities to speak about what is the same and what is different about the shapes.



SIKU 2 • DAY 2

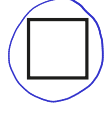
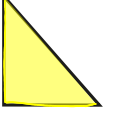
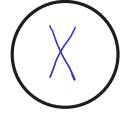
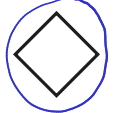
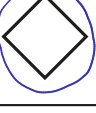
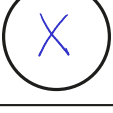
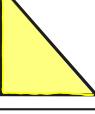
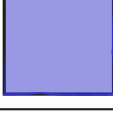
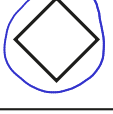
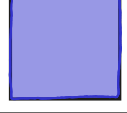
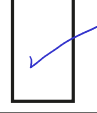
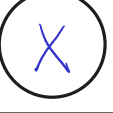
Swivumbeko swa 2-D

2-D shapes



I Kuma swivumbeko.

Find the shapes.

- Dirowa xirhendzevutana eka swikwere leswitsongo.
Draw a circle around the small squares.
- Khalara swikwere leswikulu hinkwaswo hi muvala wa wasi.
Colour all the big squares blue.
- Vekela (x) eka swirhendzevutana hinkwaswo leswikulu.
Put a x on all the big circles.
- Khalara swirhendzevutana hinkwaswo leswitsongo hi muvala wo tshwuka.
Colour all the small circles red.
- Vekela (✓) eka tiyinhlamune hinkwato letikulu.
Put a ✓ on all the big rectangles.
- Khalara tiyinhlamune hinkwato letitsongo hi muvala wa rihlaza.
Colour all the small rectangles green.
- Vekela * eka tiyinhlanharhu hinkwato letitsongo.
Put a * on all the small triangles.
- Khalara tiyinhlanharhu hinkwato letikulu hi muvala wa xitshopana.
Colour all the big triangles yellow.

2-D shapes

2 Dirowa xiharhi u tirhisa swivumbeko leswi hinkwaswo!

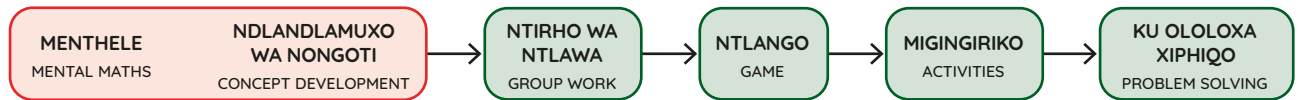
Draw an animal using all these shapes!

xirhendzevutana circle 	yinhlanharhu triangle 	xikwere square 	yinhlamune rectangle 
--	---	--	--

open activity

I yini xiharhi lexi u xi diroweke?
What animal did you draw?

Tithangiramu



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



Namuntlha hi ta endla swivumbeko hi swiphazamiso swo hlawuleka leswi vuriwaka tithangiramu. Tithangiramu i swiphazamiso swa Machayina leswi nga na swivumbeko swa 7.

Today we are going to make shapes with special puzzles called tangrams. Tangrams are Chinese puzzles with 7 shapes.

Ndzi vona tiyinhlanharhu letitsongo na tiyinhlanharhu letikulu.

I can see small triangles and big triangles.

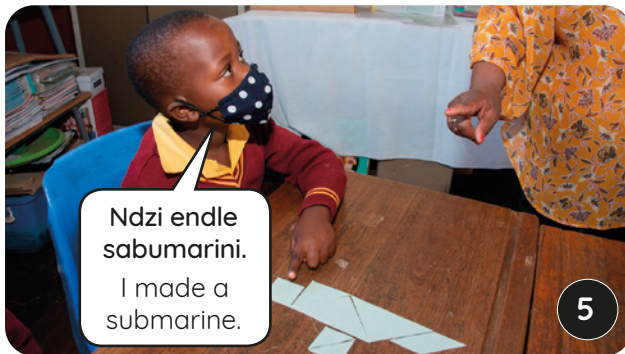
Tsema swivumbeko kusuka eka thangiramu kutani u tirhisa swivumbeko leswi ku endla xifaniso. Byela munghana wa wena leswaku u endle xifaniso xa njhani.

Cut out the shapes from the tangram and use the shapes to make a picture. Tell your friend what picture you made.



Ndzi vona xikwere.

I can see a square.



Ndzi endle sabumarini.

I made a submarine.

Sweswi ringeta ku hlanganisela swivumbeko kutani u endla swifaniso swo hambanahambana.

Now try to mix up the shapes and make different pictures.

Nyika vadyondzi mikarhi yo hlayanyana ku vumba swifaniso swo hambana, ku kanerisana hi swivumbeko leswi va swi endlaka na mavekelo ya swiphemu swa switsemiwa ku endla swivumbeko.

Allow the learners multiple opportunities to create different pictures, to discuss the shapes they make and how they position the cut-out pieces to make the shapes.

Tangrams

7
 WEEK

SIKU 3 • DAY 3
Tithangiramu
 Tangrams



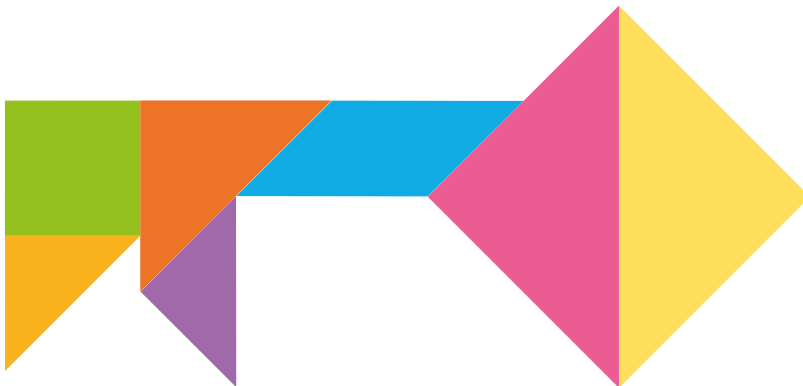
Tsema swivumbeko swa 7 (swi vuriwaka tithangiramu) eka pheji 105 kutani u swi tirhisa ku endla xifaniso lexi.

Cut out the 7 shapes (called a tangram) on page 105 and use them to make this picture.

Endla xivumbeko lexi.
Xi fana ni hembhe.
Make this shape.
It looks like a shirt.



Endla xivumbeko lexi.
Xana xi fana na yini?
Make this shape.
What does it look like?





Endla xivumbeko lexi.
Xana xi fana na yini?

Make this shape.
What does it look like?



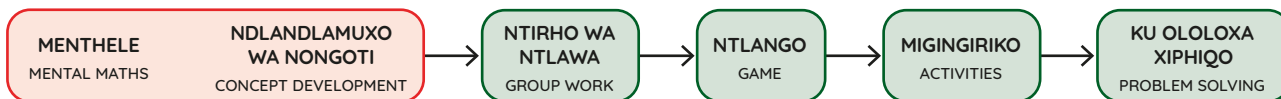
Endla xivumbeko lexi.
Xana xi fana na yini?

Make this shape.
What does it look like?





2-D shapes

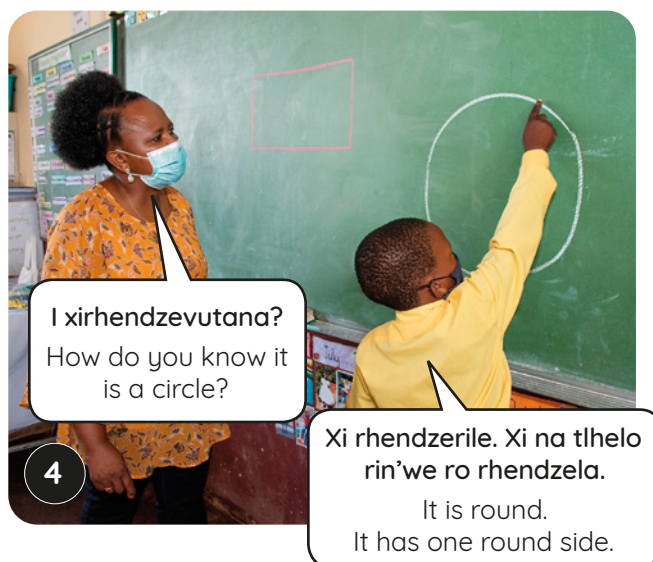


NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



Pfumelela vadyondzi ku hlamusela leswaku xivumbeko xi na matlhelo ya 4: ma2 ma lehile naswona ma2 ma komile. Xivumbeko xi tlhela xi va na makhona ya 4. Leswi swi endla xi va yinhlamune.

Allow learners to explain that the shape has 4 sides: 2 that are longer and 2 that are shorter. The shape also has 4 corners. That makes it a rectangle.



Vugelela hi xikwere na yinhlamharhu, u karhi u khutaza vadyondzi ku ehleketa hi swihlawulekisi swa swivumbeko.

Repeat with a square and a triangle, encouraging learners to think about the properties of shapes.



SIKU 4 • DAY 4

Swivumbeko swa 2-D
2-D shapes

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

- 1 Chukuchela xivumbeko lexi yelanaka ni lexo sungula eka rhowu hi yin'we.

Shade the shape that matches the first one in each row.

- 2 Tsala vito ra xivumbeko hi xin'we.

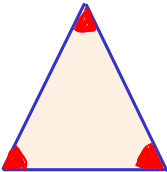
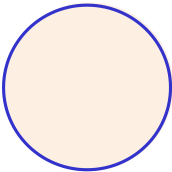
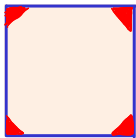
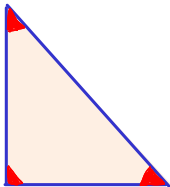
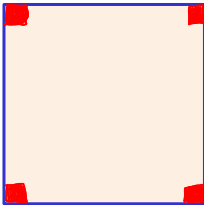
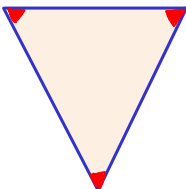
Write the name of each shape.

	xikwere square
	triangle
	circle
	rectangle

2-D shapes

3 Khalara matlhelo hi muvala wa wasi.
Colour the sides blue.

Khalara tikhona hi muvala wo tshwuka.
Colour the corners red.

	matlhelo sides 4		matlhelo sides 3
	tikhona corners 4		tikhona corners 3
	matlhelo sides 1		matlhelo sides 4
	tikhona corners 0		tikhona corners 4
	matlhelo sides 3		matlhelo sides 4
	tikhona corners 3		tikhona corners 4
	matlhelo sides 4		matlhelo sides 3
	tikhona corners 4		tikhona corners 3



SIKU 5 • DAY 5

Nkatsakanyo Consolidation

MENTHELE
MENTAL MATHS

MAKAMBELELO
ASSESSMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

A hi vulavule hi Matematiki!

Let's talk Maths!

Hi Xitsonga hi ri:

xikwere

yinhlanharhu

yinhlamune

xirhendzevutana

matihelo yo olooka

matihelo yo rhendzeleka

In English we say:

square

triangle

rectangle

circle

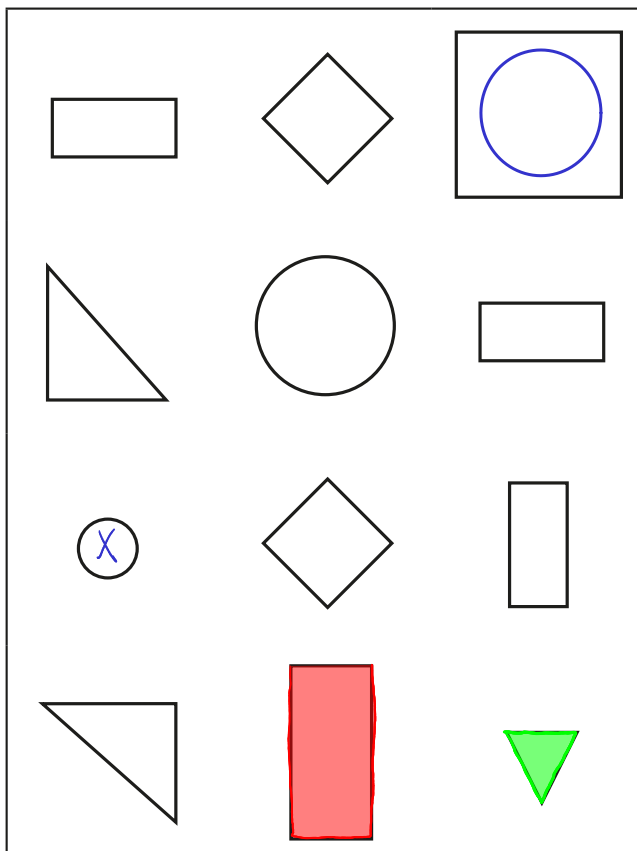
straight sides

round sides



I Kuma swivumbeko.

Find the shapes.



Dirowa xirhendzevutana endzeni ka xikwere lexikulu.

Draw a circle in the big square.

Vekela x eka xirhendzevutana lexitsongo.

Put a x on the small circle.

Khalara yinhlamune leyikulu hi muvala wo tshwuka.

Colour the big rectangle red.

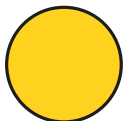
Khalara yinhlanharhu leyitsongo hi muvala wa rihlaza.

Colour the small triangle green.

Assessment and consolidation

2 Tata tafula.

Fill in the table.

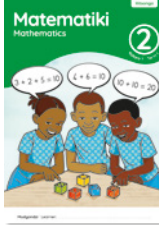
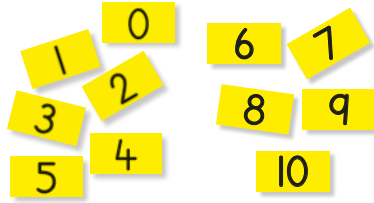
xivumbeko shape	vito name	nhlayo ya tikhona number of corners
	rectangle	4
	circle	0
	triangle	3
	square	4

3 Dirowa xikombiso xa laha xivumbeko hi xin'we xi kumekaka kona eka nchumu wa xiviri.

Draw an example of where each shape is found in real life.

	 
	open activity
	
	

Tifurakixini

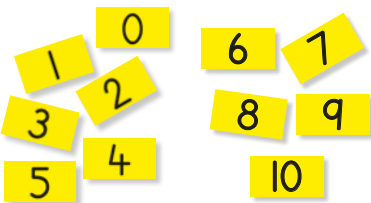
		Switirhisiwa
Menthele: Fizz Pop! – ku tlhantlha na ku aka		ku hava
Ntlango: Tifurakixini		makhadi ya tinomboro ta 0–20
  		
Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Tihafu	LAB, swikwere swa maphepha kumbe swicupucupu ku komba tihafu (vadyondzi)
2	Tikotara na xanharhu	LAB, swikwere swa maphepha kumbe swicupucupu ku komba tikotara na xanharhu (vadyondzi)
3	Xantlhanu na xatsevu	LAB, swicupucupu ku komba xantlhanu na xatsevu (vadyondzi), dayizi
4	Tifurakixini ta xiheri	LAB
5	Nkatsakanyo na makambelelo yo dyondza	LAB

Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:	✓
lemuka tifurakixini eka xivumbeko xa dayagiramu.	
tlhantlha na ku vumba swiheri.	
tsala tifurakixini u tirhisa marito hafu, xanharhu, kotara, xantlhanu na xatsevu.	

Makambelelo (languta eka tipheji ta le ndzhaku ka xiletelo lexi)

Makambelelo yo tsariwa: Tinomboro, Tioparexini na Vuxaka – Tifurakixini

Fractions

		Resources
Mental Maths: Fizz Pop! – breaking down and building up		none
Game: Fractions		number cards 0–20
 		
Day	Lesson activity	Lesson resources
1	Halves	LAB, paper squares or strips to show halves (learners)
2	Quarters and thirds	LAB, paper strips to show quarters and thirds (learners)
3	Fifths and sixths	LAB, paper strips to show fifths and sixths (learners), dice
4	Fraction of a whole	LAB
5	Consolidation and assessment for learning	LAB

After this week the learner should be able to:	✓
recognise fractions in diagrammatic form.	
deconstruct and reconstruct wholes.	
write fractions using the words half, third, quarter, fifth and sixth.	

Assessment (see back pages of this guide)

Written assessment: Numbers, Operations and Relationships – Fractions

Tifurakixini

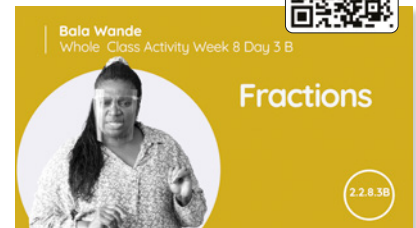
Menthele

Vhiki leri hi ta tlanga Fizz Pop!, hi kongomisile eka ku tlhantlha na ku aka tinomboro. Vadyondzi va ta nyikiwa mikarhi ya ku tlhantlha tinomboro hi va10 na va1 eka Masiku ya 1 na 3, naswona hi Masiku ya 2 na 4, va ta aka tinomboro ta tidijiti timbirhi. Khutaza vadyondzi ku tlhantlha tinomboro na ku ti aka hi ku hatlisa hilaha va kotaka hakona leswaku va ta kota ku hluvukisa vuswikoti bya ku ololoxa swiphiko hi ku hetiseka.

Ntlango

Vhiki leri hi ta tlanga matematiki wa Rivilo hi makhadi – hafu. Eka ntlango lowu, hi ta kongomisa eka ku hafula leswaku vadyondzi va hluvukisa ku tsundzuka maendlelo ya tinomboro. Vadyondzi va ta hundzuluxa makhadi kutani va hatlisa va hafula nomboro leyi kombisiweke ekhadini. Loko ku pfuriwe nhlayofadzenga, vadyondzi va fanele va lemuka leswaku ku ta va na nsalo endzhaku ka ku hafula nhlayofadzenga.

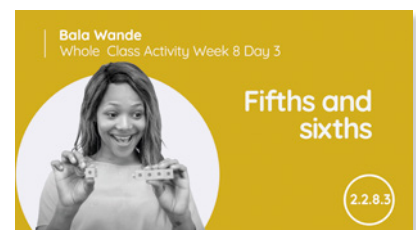
Eka ntlango wa tifurakixini, vadyondzi va tlanga hi vambirhimbirhi na ku cincana ku va wo rhanga ku tlanga. Va tirhisa bodo ya ntlango eka LAB na ku landzela matlangelo. Loko vadyondzi va tlanga ra vumbirhi, va tsala vito ra furakixini.



Ndlandlamuxo wa nongoti

Vhiki leri hi kongomisa eka tifurakixini. Swi na nkoka ku va hi sungula hi ku tirhisa swiphuno swo khomeka tanihi phepha ku dyondzisa tifurakixini. Loko vadyondzi va petsa kumbe va tsema phepha hi swiphemu swo hambana swa furakixini, va ta kota ku vuyeriwa hi ntokoto wa ku endla swiphemu swo hambana leswi swi nga ta va nyika ntwisiso wo antswa eka xivumbeko xa tifurakixini. Eka ntirho wa hina hi tifurakixini, hi ta kongomisa eka:

- ku lemuka tifurakixini eka xivumbeko xa dayagiramu.
- ku tlhantlha na ku vumba swiheri.
- ku tsala tifurakixini u tirhisa marito hafu, xanharhu, kotara, xantlhanu na xatsevu.



Leswi languteriwaka vhiki leri

- Xikan'wekan'we loko vadyondzi va swi kota ku kombisa tifurakixini hi ku tirhisa swiphuno leswi khomekaka, hi hundzela eka ku kombisa hi swifaniso. I swa nkoka ku lemuka leswaku tifurakixini to khomeka nkarhi hinkwawo ti va ti ri swiphemu swa xiheri. Hafu ya yinhlamune a yo va hafu ntsena, i hafu ya yinhlamune. Nkarhi hinkwawo i xiphemu xa xiheri.
- Swi na nkoka eka vadyondzi ku twisisa leswaku swiphemu swo fana swa furakixini swi fanele swi ringana hi sayizi.

Fractions

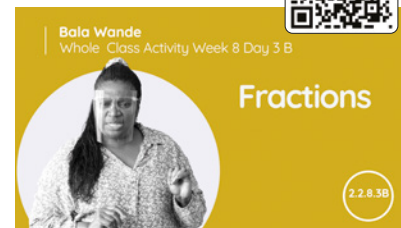
Mental Maths

This week we will play Fizz Pop!, focusing on breaking down and building up numbers. Learners will be given opportunities to break numbers into 10s and 1s on Days 1 and 3, and on Days 2 and 4 they will build two-digit numbers. Encourage learners to break numbers down and to build them up as quickly as possible so that they can develop the ability to solve problems efficiently.

Games

This week we will play Fast maths with cards – half and Fractions. In this game we will focus on halving in order to develop learners' recall of number facts. Learners will turn over cards and then quickly halve the number shown on the card. If an odd number is turned over, learners will need to recognise that there will be a remainder left over after halving the odd number.

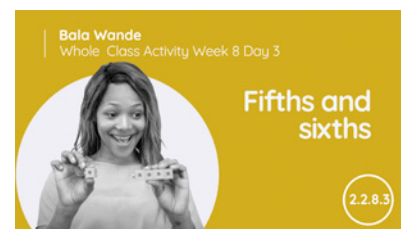
In the Fractions game, learners play in pairs and take turns to play first. They use the game board in the LAB and follow the steps. When they play the second time, learners write the name of the fraction.



Concept development

This week we focus on fractions. It is essential that we begin by using concrete aids such as paper to teach fractions. When learners fold or cut paper into different fraction parts, they are able to gain hands-on experience of making fraction parts which gives them better insight into the nature of fractions. In our work on fractions, we will focus on:

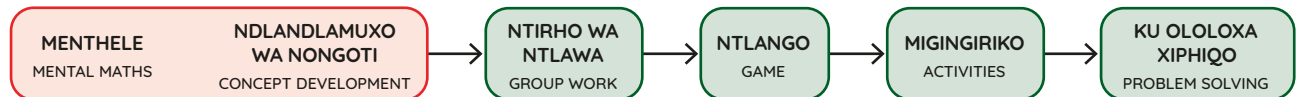
- recognising fractions in diagrammatic form.
- deconstructing and reconstructing wholes.
- writing fractions using the words half, third, quarter, fifth and sixth.



What to look out for this week

- Once the learners are able to represent fractions using concrete aids, we move on to pictorial representations. It is important to note that concrete fractions are always parts of a whole. Half a rectangle is not just a half, it is half of the rectangle. It is always relative to the whole.
- It is important for learners to understand that the same fraction parts must be equal in size.

Tihafu



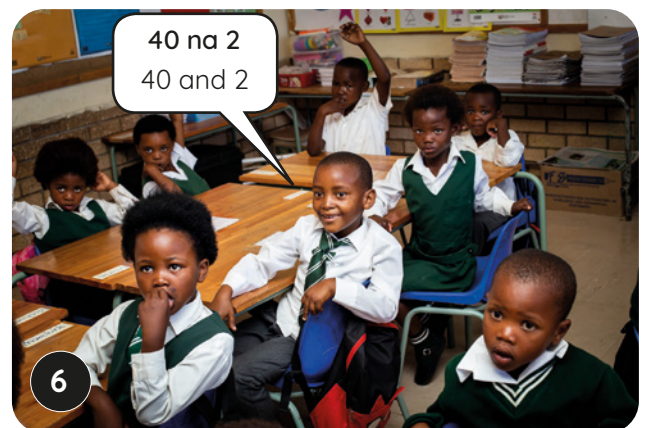
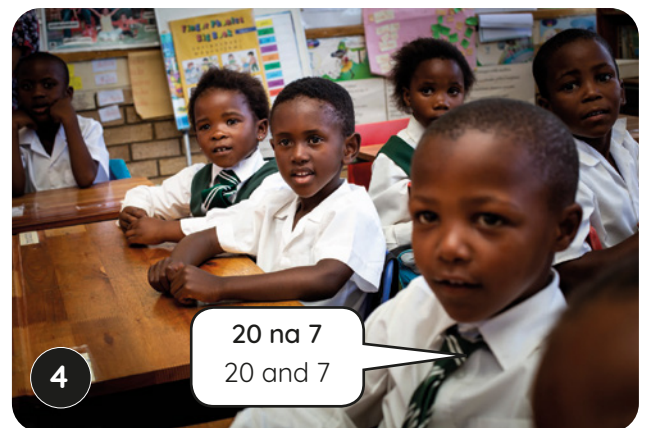
MENTHELE | MENTAL MATHS

Katsakanya ku tlhantlha na ku aka tinomboro hi ku tirhisa ntlango wa Fizz Pop!

Consolidate breaking down and building up numbers using the Fizz Pop! game.

Tsundzuka ku kamba siku na ku maka rijisitara siku rin'wana na rin'wana.

Remember to check the date and mark the register every day.



Halves

Migingiriko ya mfuwo • Enrichment activities

Siku 1 • Day 1

Hlanganisa.

Add.

$$33 + 7 = \underline{\quad}$$

$$35 + 10 = \underline{\quad}$$

$$12 + 18 = \underline{\quad}$$

$$14 + 23 = \underline{\quad}$$

$$31 + 24 = \underline{\quad}$$

Susa.

Subtract.

$$30 - 18 = \underline{\quad}$$

$$55 - 31 = \underline{\quad}$$

$$40 - 7 = \underline{\quad}$$

$$37 - 14 = \underline{\quad}$$

$$45 - 10 = \underline{\quad}$$

Siku 2 • Day 2

Hlanganisa.

Add.

$$21 + 12 = \underline{\quad}$$

$$44 + 6 = \underline{\quad}$$

$$17 + 9 = \underline{\quad}$$

$$32 + 17 = \underline{\quad}$$

$$12 + 6 = \underline{\quad}$$

Susa.

Subtract.

$$26 - 9 = \underline{\quad}$$

$$49 - 17 = \underline{\quad}$$

$$18 - 6 = \underline{\quad}$$

$$33 - 12 = \underline{\quad}$$

$$50 - 6 = \underline{\quad}$$

Siku 3 • Day 3

Tsala swivulwa swa tinomboro swi2 swa ku hlanganisa na swi2 swa ku susa etafuleni ra tinomboro.

Write 2 addition and 2 subtraction number sentences in the number table.

70	
50	20

23	
11	12

46	
13	33

Siku 4 • Day 4

Tsala swivulwa swa tinomboro swi2 swa ku hlanganisa na swi2 swa ku susa etafuleni ra tinomboro.

Write 2 addition and 2 subtraction number sentences in the number table.

32	
29	3

52	
42	10

67	
41	26

Tihafu

NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Lexi i xikwere – xikwere xin'we lexi nga helela. Xana hi fanele hi endla yini ku kuma hafu ya xikwere?

This is a square – one whole square. What should we do to get half a square?



1

Hi nga petsa phepha ri va hafu.

We can fold the paper in half.

Xana hafu ya wena yi languteka njhani?

What does your half look like?

Hafu ya mina i yinhlamune.

My half is a rectangle.

Hafu ya mina i yinhlamharhu.

My half is a triangle.



2

Swi na nkoka leswaku vadyondzi va twisisa leswaku va nga petsa swikwere swa vona hi tindlela to hambana. Leswi swi ta va pfuna ku lemuka leswaku ku na tindlela to hambana ta ku hafula xikwere.

It is important that the learners realise that they can fold their squares in different ways. This will help learners to recognise that there are different ways to halve a square.



Loko u tsema hi le ka ntila wo petsa, xana u ta va na swiphemu swingani?

If you cut along the fold line, how many pieces will you have?

3



Ndzi na swiphemu swi2 leswi fanaka kwatsa hi sayizi. Swi ringanela kwatsa ehenhla ka xin'wana.

I have 2 pieces that are exactly the same size. They fit exactly on top of each other.

4

Khutaza vadyondzi ku lemuka leswaku loko xiheri xi avangisiwile hi swiphemu swimbirhi, xiphemu xin'wana na xin'wana xi fana kwatsa hi sayizi. Loko u endla swiphemu swimbirhi swo ringana kusuka eka xiheri, u nga vitana xiphemu xin'wana na xin'wana hafu yin'we ya xiheri. Pfuna vadyondzi nakambe ku vona leswaku pheji kumbe xivumbeko swi nga petsiwa swi va tihafu to hambana hi swivumbeko.

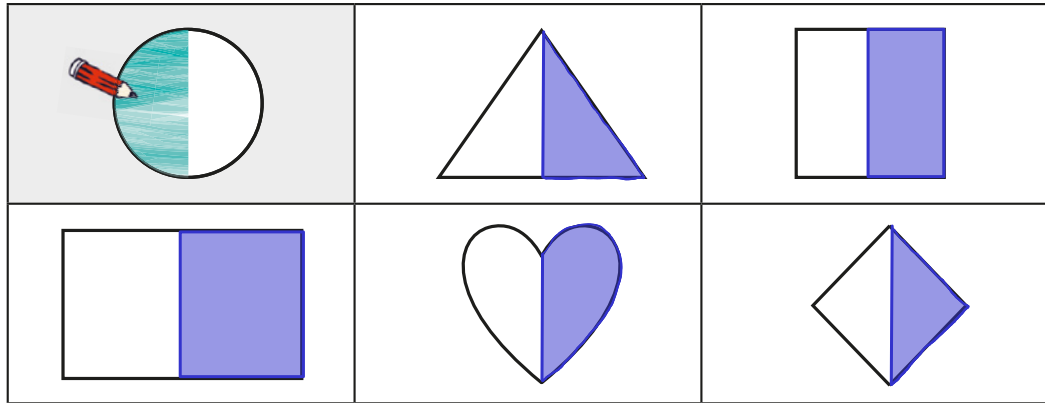
Encourage learners to recognise that when a whole is divided into two parts, then each part is exactly the same size. When you make **two equal parts** from one whole, you call each part one **half** of the whole. Also help learners to see that a page or shape can be folded into differently shaped halves.

- Colour one half of each shape.



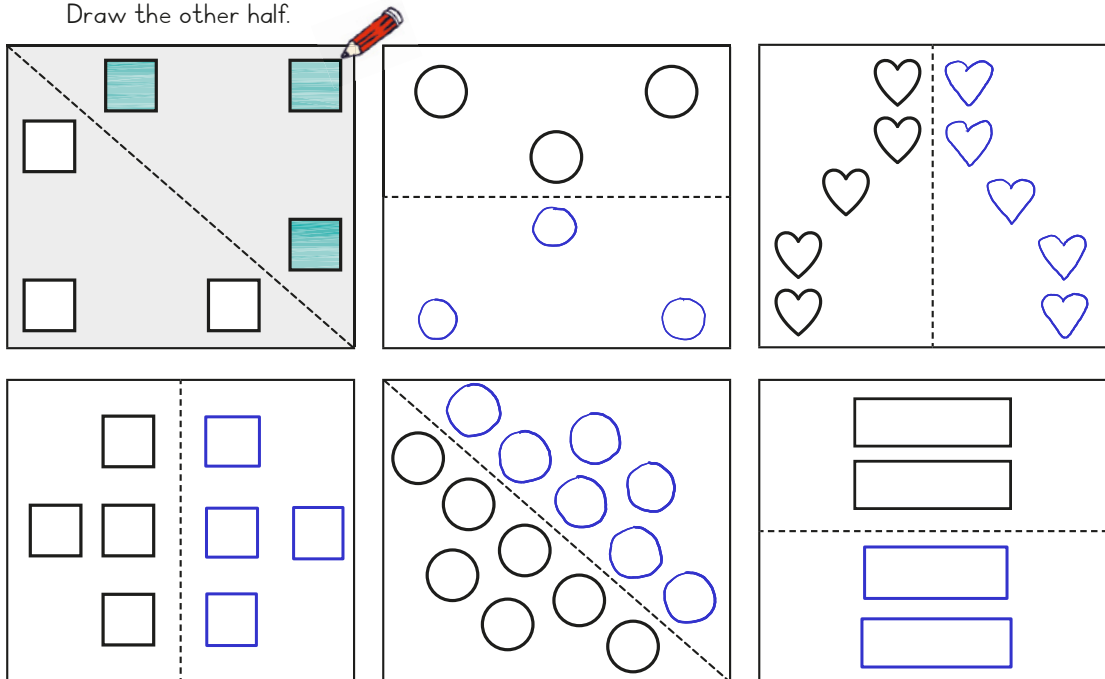
3 Khalara hafu ya xivumbeko hi xin'we.

Colour one half of each shape.



4 Dirowa hafu yin'wana.

Draw the other half.



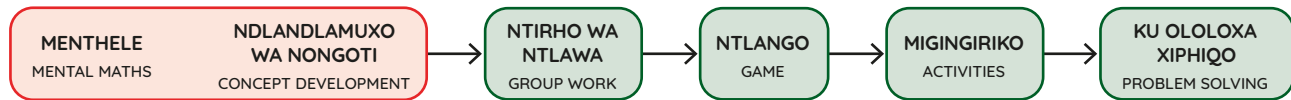
5 Tsala u landzelerisa.

Trace.

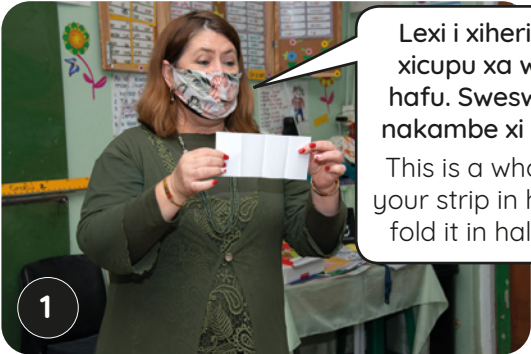
hafu hafu half half



Quarters and thirds



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



1

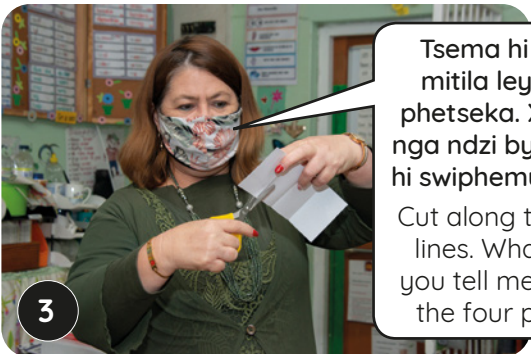
Lexi i xiheri. Petsa xicupu xa wena hi hafu. Sweswi petsa nakambe xi va hafu.
This is a whole. Fold your strip in half. Now fold it in half again.



2

Xana u vona swiphemu swingani?
How many parts can you see?

Ku na mune wa swiphemu.
There are four parts.



3

Tsema hi le ka mitila leyi nga phetseka. Xana u nga ndzi byela yini hi swiphemu leswi?
Cut along the fold lines. What can you tell me about the four parts?



4

Ndzi na swiphemu swa 4 leswi nga na sayizi yo ringana. Swi ringanela kwatsa ehenhla ka xin'wana na xin'wana.
I have 4 parts that are the same size. They fit exactly on top of each other.

Loko u endla swiphemu leswi ringanaka hi xiheri xin'we, xiphemu xin'wana na xin'wana i furakixini ya xiheri. Loko u endla **swiphemu swa mune leswi ringanaka** kusuka eka xiheri, u vitana xiphemu xin'wana na xin'wana **kotara** ya xiheri.

When you make equal parts from one whole, each part is a fraction of the whole. When you make **four equal parts** from one whole, you call each part one **quarter** of the whole.



5



6

Vuyelela magoza lama nga laha henhla hi xicupu xa phepha leri kombaka swiphemu swi3, leri nga le ndzhaku ka LAB.
Repeat the steps above with a strip of paper that shows 3 parts, which is at the back of the LAB.

Kombela vadyondzi ku petsa hi le ka mitila leyi nga na tidoto leswaku swiphemu leswi nharhu swi vonaka kahle. Tirhisa xicupu lexi xa phepha ku tivisa na ku vulavula hi xanharhu. Loko u endla swiphemu swinharhu leswi ringanaka kusuka eka xiheri, u vitana xiphemu xin'wana na xin'wana n'we xanharhu xa xiheri.

Ask learners to fold on the dotted lines so that the three parts are clearly visible. Use this strip of paper to introduce and talk about thirds. When you make **three equal parts** from one whole, you call each part one **third** of the whole.



SIKU 2 • DAY 2

Tikotara na xanharhu
Quarters and thirds

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

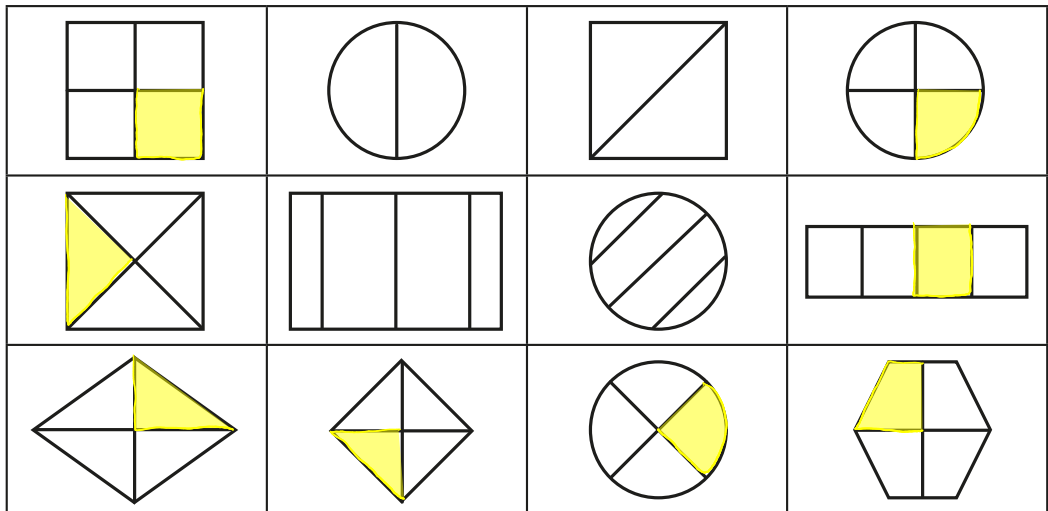
NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

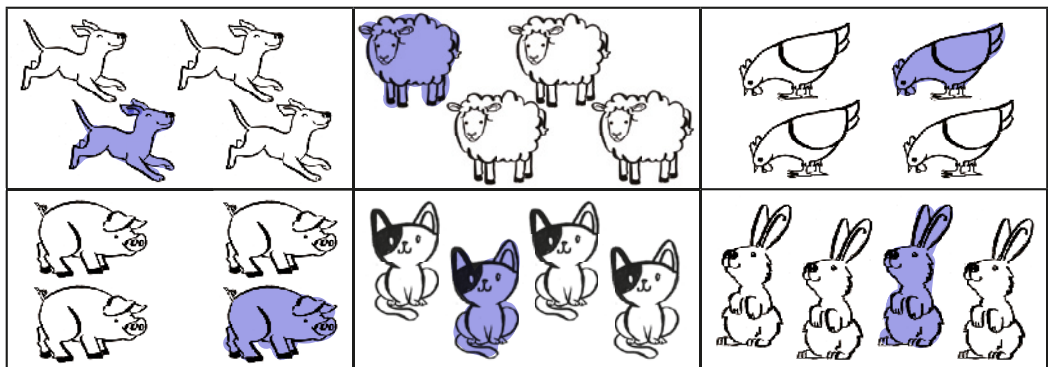
- 1 Khalara kotara yin'we ya xivumbeko hi xin'we lexi avanyisiweke hi tikotara.

Colour one quarter of each shape that is divided into quarters.



- 2 Khalara kotara yin'we ya ntlawa hi wun'we wa swiharhi.

Colour in one quarter of each group of animals.



- 3 Tsala u landzelerisa.

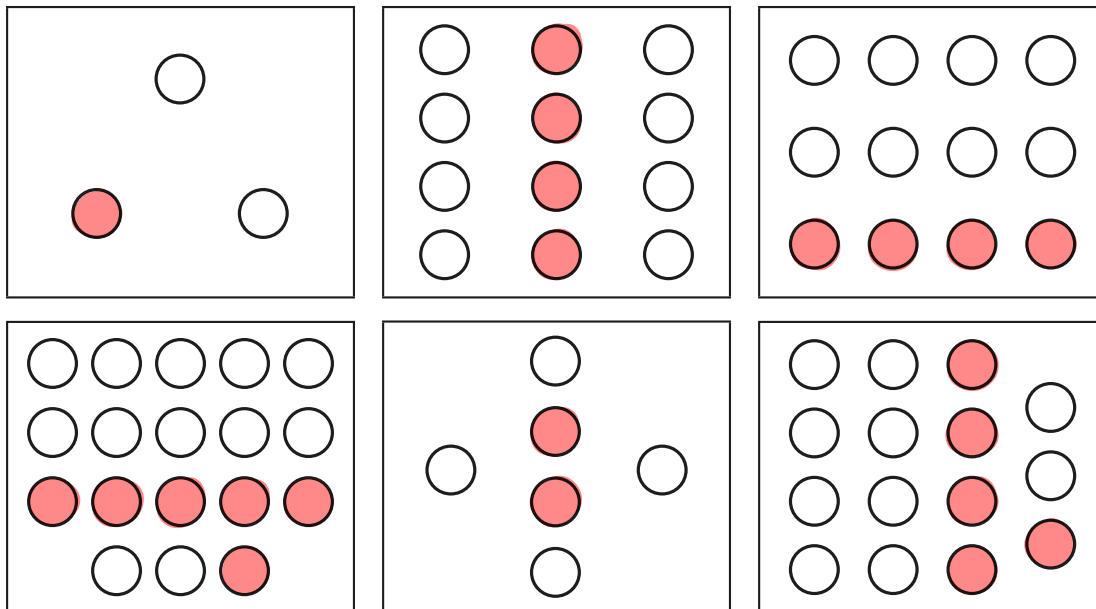
Trace.

kotara kotara quarter quarter

Quarters and thirds

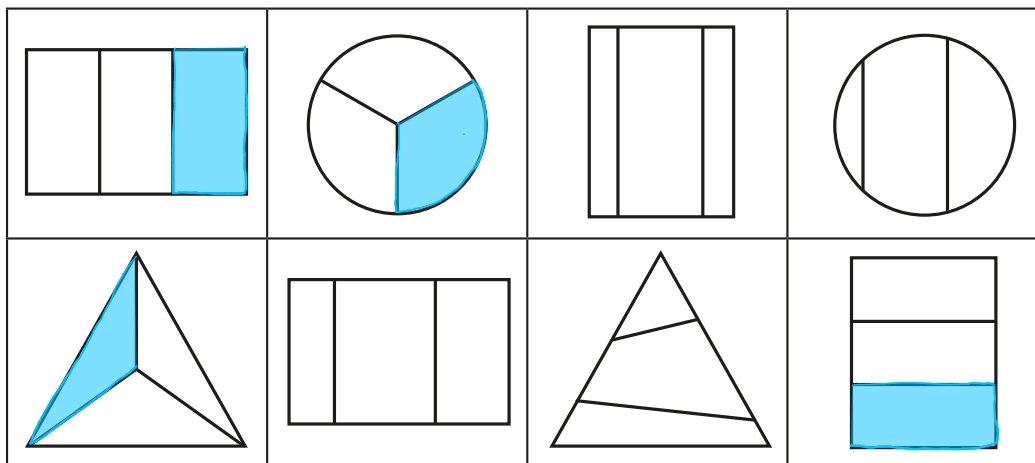
4 Khalara n'wexanharhu xa swivumbeko.

Colour in one third of the shapes.



5 Khalara n'wexanharhu xa xivumbeko hi xin'we lexi avanyisiweke xi va swinharhu.

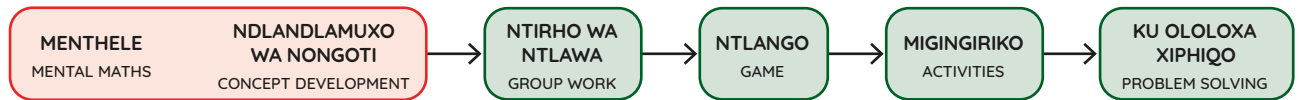
Colour one third of each shape that is divided into thirds.



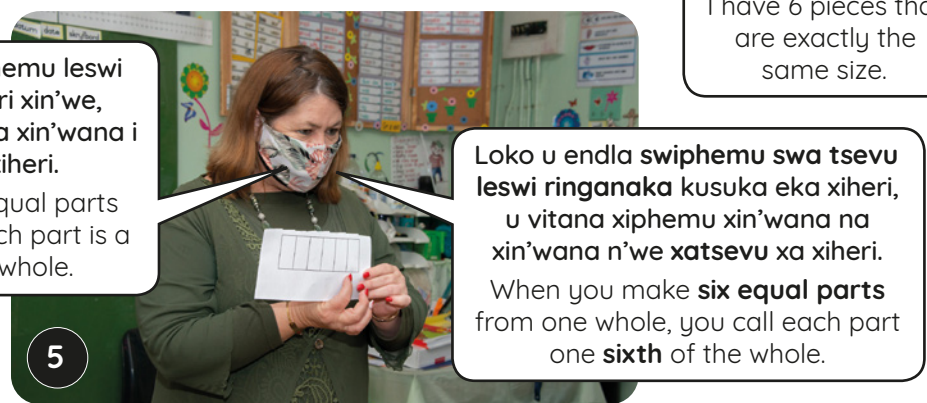
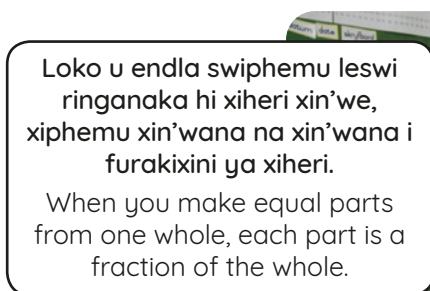
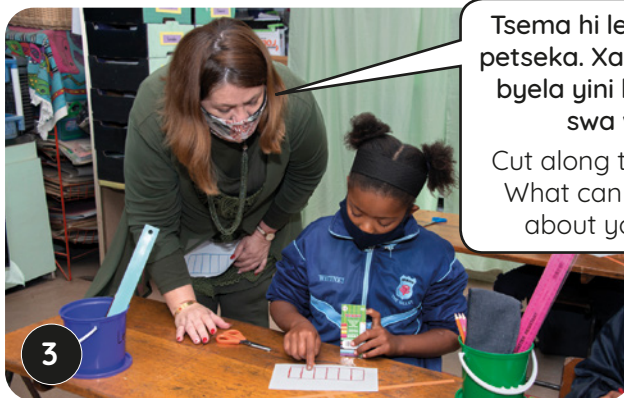
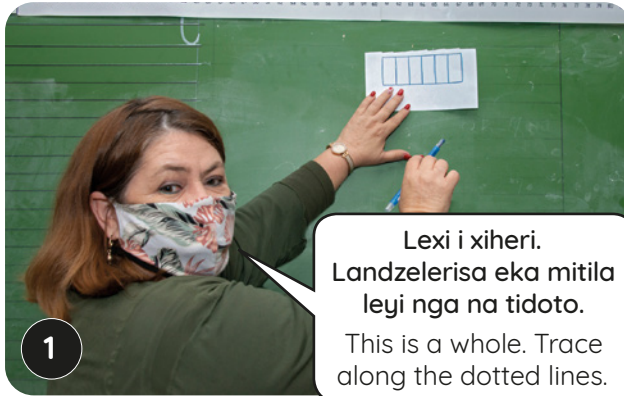
6 Tsala u landzelerisa.

Trace.

xanharhu xanharhu third third



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT



Vuyelela magoza lama nga laha henhla hi xicupu xa phepha leri kombaka swiphemu swa 5. Kombela vadyondzi ku landzelerisa na ku petsa eka mitila ya tidoto leswaku swiphemu leswi swa ntlhanu swi vonaka kahle. Tirhisa xicupu lexi xa phepha ku ku tivisa xantlhanu. Loko u endla swiphemu swa ntlhanu leswi ringanaka kusuka eka xiheri, u vitana xiphemu xin'wana na xin'wana n'we xantlhanu xa xiheri.

Repeat the steps above with the strip of paper that shows 5 parts. Ask learners to trace and fold on the dotted lines so that the five parts are clearly visible. Use this strip of paper to introduce fifths. When you make **five equal parts** from one whole, you call each part one **fifth** of the whole.



SIKU 3 • DAY 3

Xantlhanu na xatsevu

Fifths and sixths

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

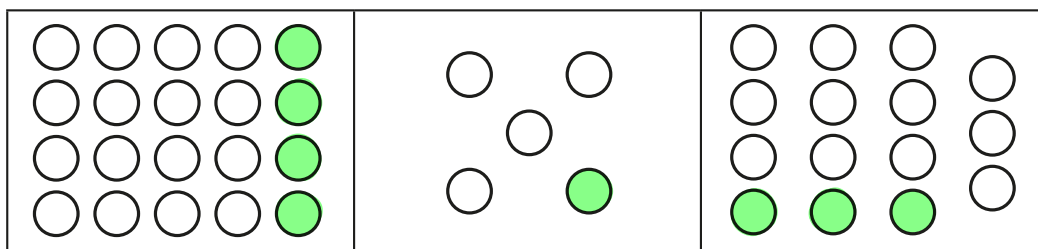
NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

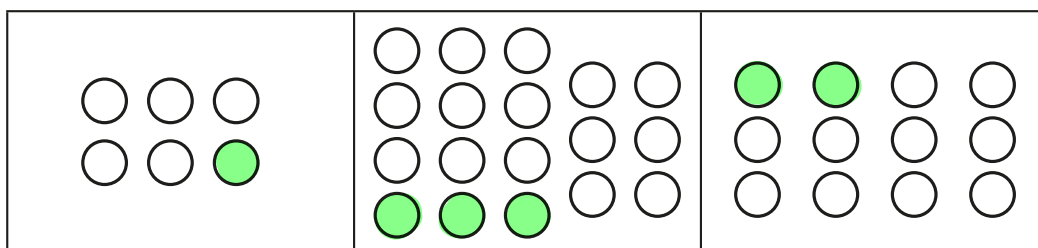
1 Khalara n'wexantlhanu.

Colour in one fifth.



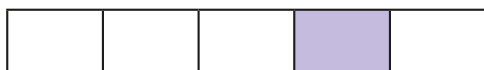
2 Khalara n'wexatsevu.

Colour in one sixth.



3 Tata.

Complete.



Xiphemu xa _____ xa
swiphemu swi _____ leswi
ringanaka.

1 part of 5 equal parts.



Xiphemu xa _____ xa
swiphemu swi _____ leswi
ringanaka.

1 part of 6 equal parts.

4 Tsala u landzelerisa.

Trace.

xantlhanu xantlhanu fifth fifth
xatsevu xatsevu sixth sixth

Ntlango: Tifurakixini
Game: Fractions

- Tlanga ni munghana. Cincanani hi ku sungula.
Play with a friend. Take turns going first.
- Hoxa dayizi kutani u fambisa xihlayelo xa wena.
Roll the dice and move your counter.
- Vula vito ra furakixini.
Say the name of the fraction.
- Hoxa nakambe loko u be kona.
Roll again if you get it right.

Marito ya nkoka

Key words

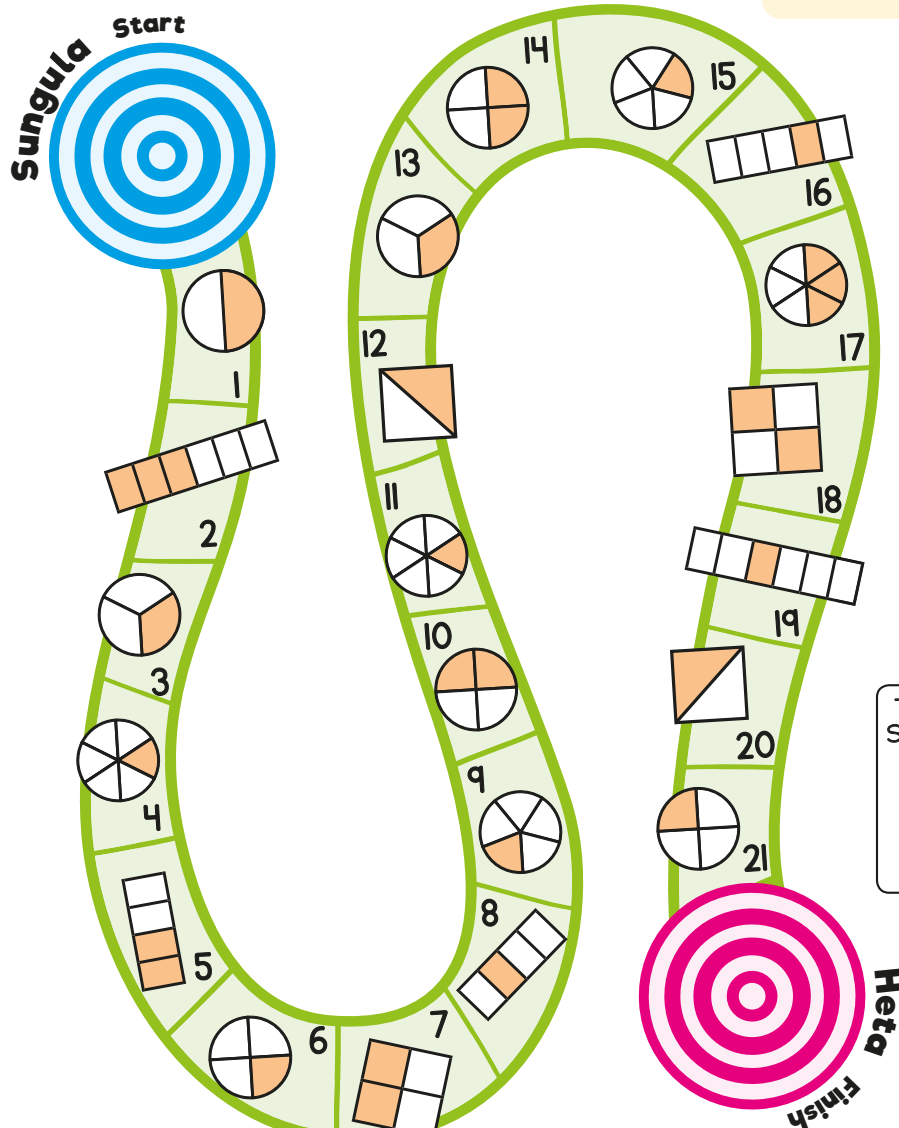
hafu yin'we
one half

n'wexanharhu
one third

n'wexamune/kotara
one fourth/quarter

n'wexantlhanu
one fifth

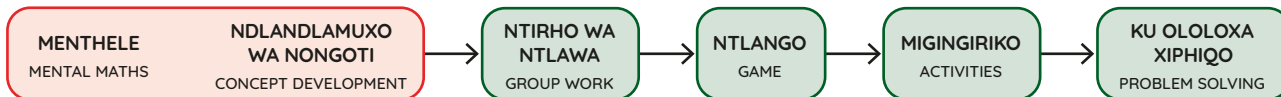
n'wexatsevu
one sixth



Tlanga nakambe.
Sweswi tsala vito
ra furakixini.

Play again.
This time write
the name of the
fraction.

Fractions of a whole



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Languta swiphemu swa wena kutani u ndzi byela leswaku hi tihi tifurakixini leti u ti vonaka.

Look at your shapes and tell me what fractions you can see.



1

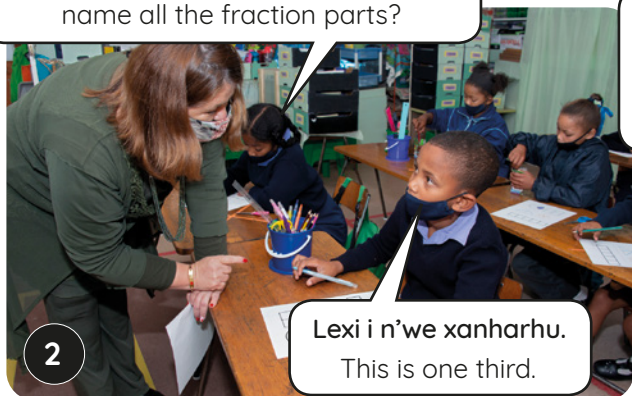
Nyika vadyondzi nkarhi wa ku khalara xiphemu xin'we eka xivumbeko xin'wana na xin'wana na ku tiva va tlhela va kanerisana hi swona: Tihafu (yinhlanharhu), xanharhu (xirhendzevutana), tikotara (swikwere), xantlhanu (yinhlamune) na xatsevu (hekwisagoni)

Allow learners time to colour one part in each of the shapes and identify and discuss. Halves (triangle), thirds (circle), quarters (square), fifths (rectangle) and sixths (hexagon).

Languta swivumbeko hinkwaswo. Xana u nga vula mavito ya swiphemu hinkwaswo swa tifurakixini?

Look at all of the shapes. Can you name all the fraction parts?

Ndzi vona tikotara!
I see quarters!



2

Lexi i n'we xanharhu.
This is one third.

Yinhlamune yi komba xantlhanu.
The rectangle shows fifths.



3

Tsala mavito ya swiphemu swa furakixini eka swivumbeko hinkwaswo.

Write the names of the fraction parts for all of the shapes.



4

Xana u swi tiva njhani leswaku furakixini yihi hi yihi?

How do you know what fraction is what?

Pfumelela vadyondzi ku vulavula hi tifurakixini to hambanahambana leti va ti vonaka. Loko va hetile ku khalara swiphemu eka xivumbeko xin'wana na xin'wana, va kombele ku komba swiphemu swa furakixini kutani va vulavula hi leswi va swi tivisaka swona ku swi vona.

Allow learners time to talk about the different fractions that they see. After they have coloured the parts of each shape, ask them to point to the fraction parts and talk about how they know now to identify them.



SIKU 4 • DAY 4

Tifurakixini ta xiheri
Fractions of a whole

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

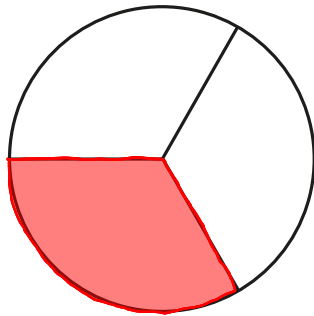
NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

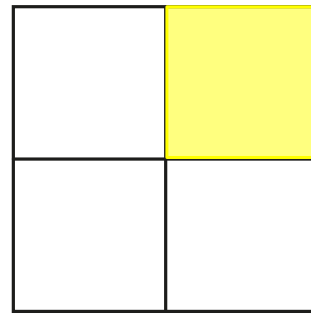
MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

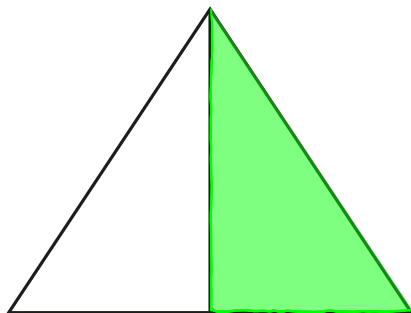
I Tsala u landzelerisa. Khalara swiphemu.
Trace. Colour the parts.



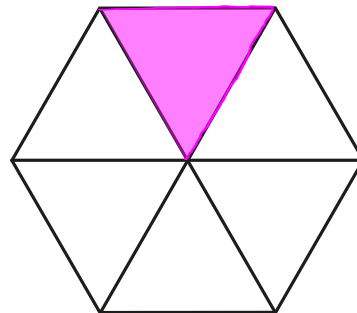
xanharhu third



kotara quarter



hafu half



xatsevu sixth



xanthanu fifth

Fractions of a whole

- 2 Khalara xiphemu xin'we.
Tsala u landzelerisa vito
ra furakixini.

Colour one part. Trace the name
of the fraction.

Loko ndzi avela vana va2 lofo
yin'we ya xinkwa, n'wana
un'we u kuma hafu yin'we.

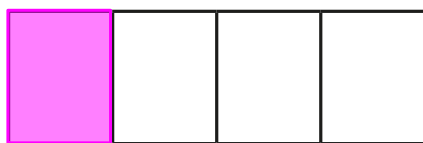
When I share 1 loaf
between 2 children,
one child gets one half.



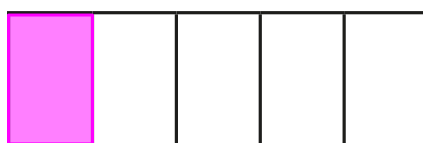
hafu yin'we
one half



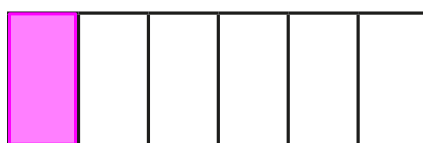
n'wexanharhu
one third



kotara yin'we
one quarter



n'wexantlhanu
one fifth



n'wexatsevu
one sixth



SIKU 5 • DAY 5

Nkatsakanyo Consolidation

MENTHELE
MENTAL MATHS

MAKAMBELELO
ASSESSMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHISO
PROBLEM SOLVING

A hi vulavule hi Matematiki!

Let's talk Maths!

Hi Xitsonga hi ri:

hafu yin'we

xin'we xa swiphemu swi2 swo ringana

n'wexanharhu

xin'we xa swiphemu swi3 swo ringana

kotara yin'we

xin'we xa swiphemu swa 4 swo ringana

n'wexantlhanu

n'wexatsevu

In English we say:

one half

one of 2 equal parts

one third

one of 3 equal parts

one quarter

one of 4 equal parts

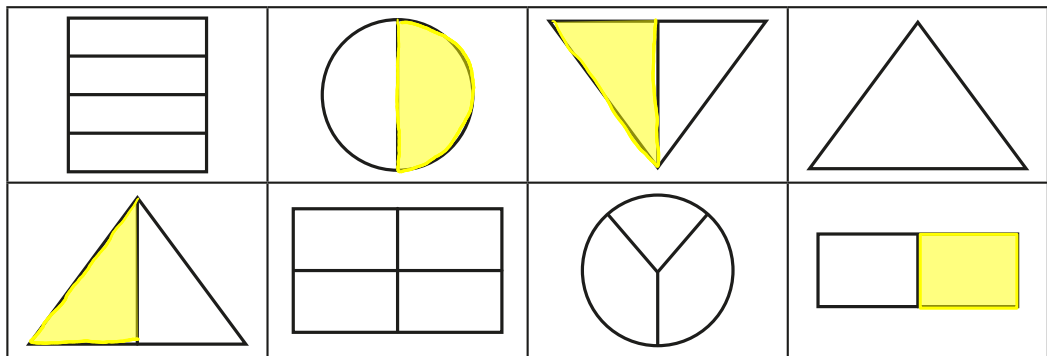
one fifth

one sixth



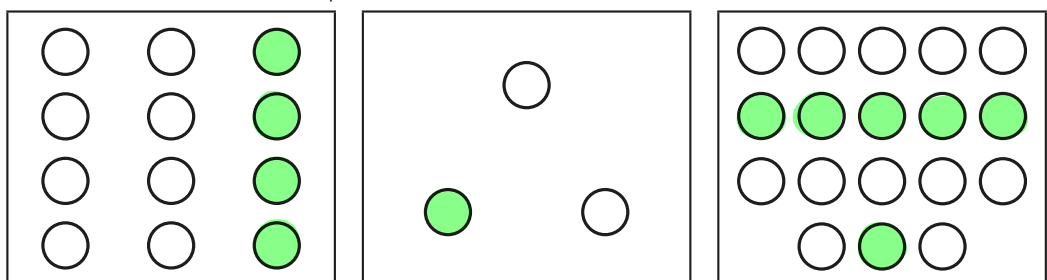
- 1 Khalara hafu yin'we ya xivumbeko hi xin'we lexi avanyisiweke xi va tihafu.

Colour one half of each shape that is divided into halves.



- 2 Khalara n'wexanharhu xa swivumbeko.

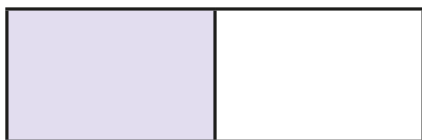
Colour in one third of the shapes.



Assessment and consolidation

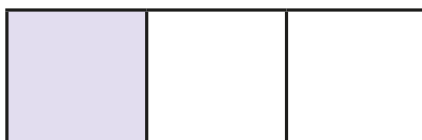
3 Tata la ku saleke.

Fill in the blanks.



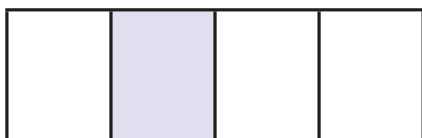
Xiphemu xa _____ xa swiphemu
swa _____ leswi ringanaka.

1 part of 2 equal parts.



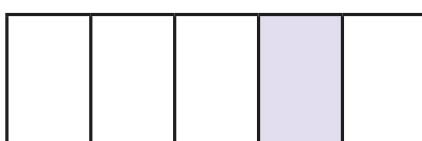
Xiphemu xa _____ xa swiphemu
swa _____ leswi ringanaka.

1 part of 3 equal parts.



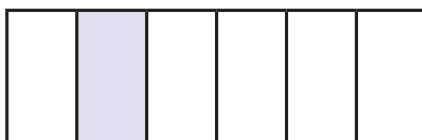
Xiphemu xa _____ xa swiphemu
swa _____ leswi ringanaka.

1 part of 4 equal parts.



Xiphemu xa _____ xa swiphemu
swa _____ leswi ringanaka.

1 part of 5 equal parts.



Xiphemu xa _____ xa swiphemu
swa _____ leswi ringanaka.

1 part of 6 equal parts.

Ku ntlawahata na ku ava

		Switirhisiwa
Menthele: Fizz Pop! – ku hafula		ku hava
Ntlango: Ku avela!		tibuloko ta multifix
		
Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Ku avela va2	LAB, tibuloko ta multifix
2	Ku ava ku va na nsalo	LAB, tibuloko ta multifix
3	Ku ntlawahata	LAB
4	Ku ntlawahata ku va na nsalo	LAB
5	Nkatsakanyo na makambelelo yo dyondza	LAB

Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:	✓
ololoxa na ku hlamusela switshunxo swa swiphiqo swo endliwa leswi ngenisaka ku avelana hi ku ringana leswi nga na tinhlamulo leti ngenisaka na nsal.	

Makambelelo

Makambelelo ya mafundza ku hava vhiki leri.

U fanela ku xiyisisa vadyondzi etlilasini ya wena na ku endla tinotsi tanihi xiphemu xa makambelelo lama yaka emahlweni ya dyondzo ya nkamafundza.

Grouping and sharing

		Resources
Mental Maths: Fizz Pop! – halving		none
Game: Sharing!		multifix blocks
		
Day	Lesson activity	Lesson resources
1	Sharing between 2	LAB, multifix blocks
2	Sharing with a remainder	LAB, multifix blocks
3	Grouping	LAB
4	Grouping with a remainder	LAB
5	Consolidation and assessment for learning	LAB

After this week the learner should be able to:	✓
solve and explain solutions to practical problems that involve equal sharing with answers that can include remainders.	

Assessment

There is no formal assessment this week.

You should observe the learners in your class daily and make notes as part of your informal ongoing assessment for learning.

Ku ntlawahata na ku ava

Menthele

Vhiki leri hi ta tlanga Fizz Pop! nakambe. Hi ta kongomisa eka ku hafula, khutaza vadyondzi ku hafula tinomboro tanihi qhinga leri hetisekeke ra ku khakhuleta. Hambiloko swi ololva ku hafula tinhlayondzingano, swi na nkoka ku va vadyondzi va titoloveta ku hafula na tinhlayofadzenga. Hikokwalaho ka leswaku tinhlayofadzenga ti va na nsalo, swa fanela ku tilulamisela ku va na ku burisana mayelana na swiphiko swa muxaka lowu.

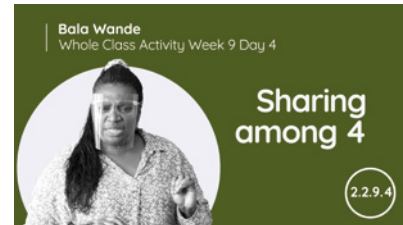
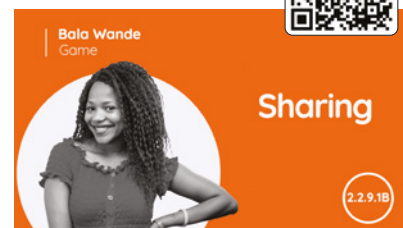
Ntlango

Vhiki leri hi ta tlanga Ku avela! hi ku tirhisa tibuloko ta multifix. Vadyondzi va fanele va anakanya onge buloko yin'wana na yin'wana i xiwitsi. Mudyondzi u vitana nomboro. Vadyondzi va fanele va avelana swiwitsi hi ku ringana exikarhi ka vadyondzi vambirhi. Va vutise, 'Xana mudyondzi un'we u kuma swiwitsi swingani?' 'Xana ku sele swingani?' Ntlango lowu wu hluvukisa vuswikoti bya vadyondzi byo ava nhlayo ya michumu leyi nyikiweke hi swiphemu swimbirhi – leswi swi veka masungulo ya ku hafula.

Ndlandlamuxo wa nongoti

Vhiki leri hi kongomisa eka ku avela vadyondzi va 2, 3 na 4. Vadyondzi va ta nyikiwa mikarhi ku avelana tibuloko ta multifix, na ku rhekhoda hi ku tirhisa tidayagiramu. Vadyondzi va ta tirha hi tinomboro leti va nga ta avelana hi ku ringana, naswona va ta tlhela va kanela leswaku va nga endla yini loko ku va na nsalo. Eka ntirho wa hina wa ku ava, hi ta kongomisa eka:

- Ku ololoxa swiphiko leswi nga nghenisaka ku avelana loku nga na nsalo. Eka ku avelana loku, michumu yi aviwa exikarhi ka nhlayo ya vanhu leyi nyikiweke (xikombiso), naswona vadyondzi va fanele va kuma leswaku munhu un'wana na un'wana u fanele a kuma swilo swingani.



Leswi languteriwaka vhiki leri

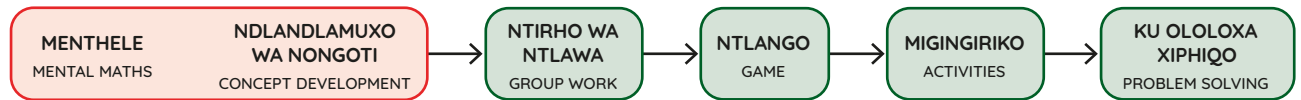
Swi na nkoka ku pfumelela vadyondzi nkarhi wo kanela hi laha va avaka hakona tibuloko ta vona ta multifix na ku ehleketa hi leswi va faneleke ku swi endla loko ku va na nsalo. Pfuno vadyondzi ku twisisa leswaku nsalo wu nga tshikiwa wu va xiheri, kumbe xi nga ha hambanisiwa swi va swiphemu swa furakixini.

Grouping and sharing

Mental Maths This week we will play Fizz Pop! again. We will focus on halving, encouraging learners to halve numbers as an efficient calculation strategy. Whilst it is easier to halve even numbers, it is important that learners also practise halving odd numbers. Due to the fact that odd numbers will have a remainder, it is necessary to be prepared for additional conversations about these types of problems. Game This week we will play Sharing! using multifix blocks. Learners should imagine each block is a sweet. The teacher calls a number. The learners must share the sweets equally between 2 learners. Ask them, ‘How many does each learner get?’ ‘How many are left over?’ This game develops learners’ ability to share a given number of items into two parts – it lays the foundation for halving.	
Concept development This week we focus on sharing among 2, 3 and 4. Learners will be given opportunities to share multifix blocks and to record using diagrams. Learners will work with numbers that they can share equally, and they will also discuss what could be done when there is a remainder. In our work on sharing, we will focus on: • solving problems involving sharing with the possibility of a remainder. In this kind of division, objects are divided among a given number of people (for example) and learners have to find out how many of the items being shared each person will get.	

What to look out for this week It is important to allow learners time to discuss how they share their multifix blocks and to think about what they should do with any remainders. Help learners to realise that a remainder can be left as a whole, or that it can be split into fractional parts.

Ku avela va2



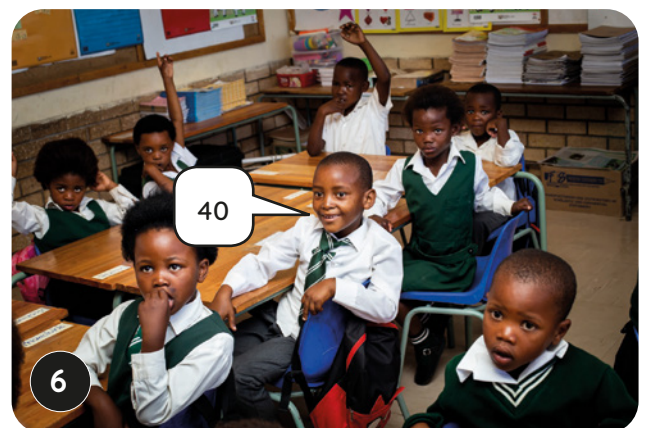
MENTHELE | MENTAL MATHS

Katsakanya ku hafula hi ku tirhisa ntlango wa Fizz Pop!

Consolidate halving using the Fizz Pop! game.

Tsundzuka ku kamba siku na ku maka rijisitara siku rin'wana na rin'wana.

Remember to check the date and mark the register every day.



WEEK 9 • DAY 1

Sharing between 2

Migingiriko ya mfuwo • Enrichment activities

Siku 1 • Day 1

Khalara.
Colour.



n'we-xatsevu
one sixth



kotara yin'we
one quarter



hafu yin'we
one half



n'we-xantlhanu
one fifth



n'we-xanharhu
one third

Siku 2 • Day 2

Khalara.
Colour.



n'we-xanharhu
one third



n'we-xantlhanu
one fifth



n'we-xatsevu
one sixth



kotara yin'we
one quarter



hafu yin'we
one half

Siku 3 • Day 3

Khalara.
Colour.



kotara yin'we
one quarter



n'we-xatsevu
one sixth



n'we-xantlhanu
one fifth



hafu yin'we
one half



n'we-xanharhu
one third

Siku 4 • Day 4

Khalara.
Colour.



n'we-xatsevu
one sixth



hafu yin'we
one half



n'we-xanharhu
one third



n'we-xantlhanu
one fifth



kotara yin'we
one quarter



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Loko u ava tibuloko ta 30 exikarhi ka vanhu va2, munhu un'we u ta kuma tibuloko tingani?

If you share 30 blocks between 2 people, how many blocks will each person get?



Yin'we i ya wena, yin'we i ya mina, yin'we i ya wena, yin'we i ya mina ...
One for you, one for me, one for you, one for me ...

Xana munhu un'we u kume tibuloko tingani?

How many blocks did each person get?



Munhu un'we u kuma tibuloko ta 15 ta multifix.

Each person gets 15 multifix blocks.



Hi kombise exitsalelweni leswi u nga avisa swona tibuloko ta 30 ta multifix exikarhi ka vanhu va2.

Show us on the board how you shared 30 multifix blocks between 2 people.



Ndzi sungula ndzi ava hi va10, kutani ndzi ava hi va1.
I first share the 10s, then I share the 1s.

Xana u nga tsala xivulwa xihhi xa tinomboro ku kombisa leswi u nga avisa swona 30 exikarhi ka vanhu va2?

What number sentence can we write to show how 30 is shared between 2 people?



$$30 \div 2 = 15$$

Vuyeleda magoza lama hi tinomboro tin'wana leti nga aviwaka hi ku ringana exikarhi ka vanhu vambirhi.

Repeat the steps with other numbers that can be shared equally between two people.



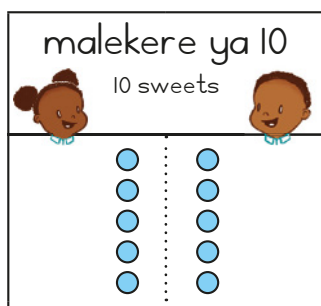
SIKU 1 • DAY 1

Ku avela va2 Sharing between 2

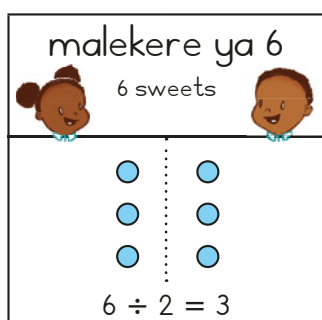
MENTHELE
MENTAL MATHSNDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENTNTIRHO WA
NTLAWA
GROUP WORKNTLANGO
GAMEMIGINGIRIKO
ACTIVITIESKU OLOLOXA
XIPHIQO
PROBLEM SOLVING

Ntlango: Ku avela! Game: Sharing!

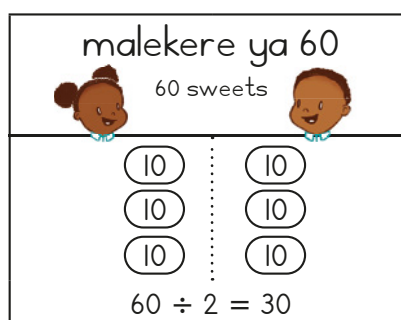
- Endla wonge buloko hi yin'we i lekere!
Imagine each block is a sweet!
- Mudyondzisi wa wena u vita nomboro.
Your teacher calls a number.
- Avela vadyondzi va2 malekere hi ku ringana.
Share the sweets equally between 2 learners.
- Mudyodzi hi un'we u kuma mangani?
How many does each learner get?



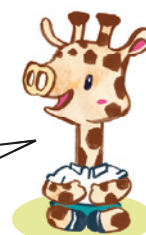
Loko hi avela vadyondzi va2 malekere ya 10, mudyondzi hi un'we u kuma hafu.
When we share 10 sweets between 2 learners, each learner receives half.



Loko 6 ma averiwa vadyondzi va2 ma endla 3.
Ndzi nyika Vuyo lekere rin'we kutani rin'wana ndzi nyika Cebo kukondza ndzi ava malekere hinkwawo.
6 shared between 2 equals 3.
I give one sweet to Vuyo, and one to Cebo until I share all the sweets.



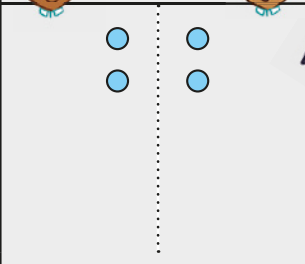
Loko 60 ma averiwa vadyondzi va2 ma endla 30.
Ndzi nyika Vuyo malekere ya 10 na Cebo 10 ya wona kukondza ndzi ava malekere hinkwawo ya 60. Ndzi ehleketa hi va10.
60 shared between 2 equals 30.
I give 10 sweets to Vuyo, and 10 to Cebo until I share all 60 sweets. I think in 10s.



Avela vadyondzi va2 malekere hi ku ringana. Mudyodzi hi un'we u kuma malekere mangani?

Share sweets equally between 2 learners. How many sweets does each learner get?

malekere ya 4
4 sweets

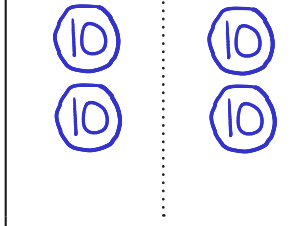



$4 \div 2 = 2$

Ndzi avela vadyondzi va2 malekere ya 4 hi ku ringana. Hafu ya malekere ya 4 i malekere ya 2.

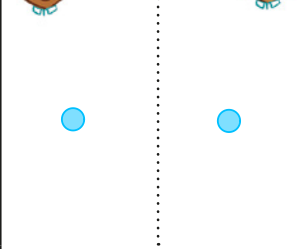
I share 4 sweets equally between 2 learners. Half of 4 sweets is 2 sweets.

malekere ya 40
40 sweets



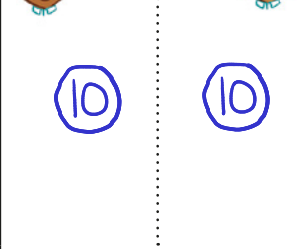
$40 \div 2 = 20$

malekere ya 2
2 sweets



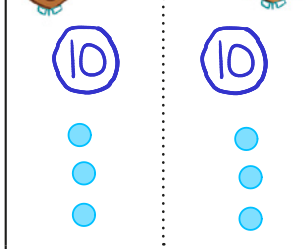
$2 \div 2 = 1$

malekere ya 20
20 sweets



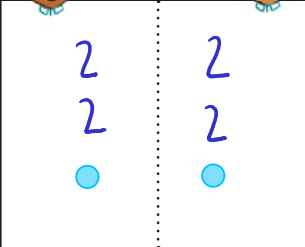
$20 \div 2 = 10$

malekere ya 26
26 sweets



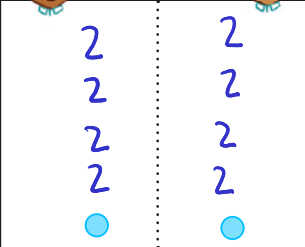
$26 \div 2 = 13$

malekere ya 10
10 sweets



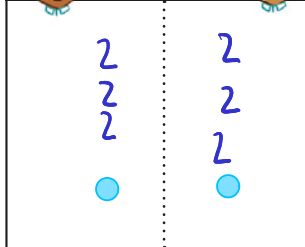
$10 \div 2 = 5$

malekere ya 18
18 sweets



$18 \div 2 = 9$

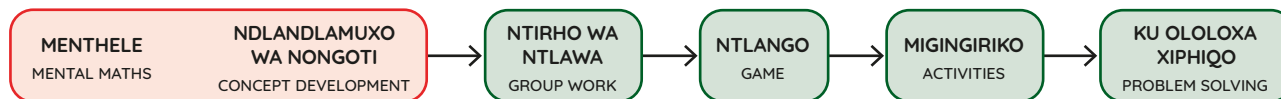
malekere ya 14
14 sweets



$14 \div 2 = 7$



Sharing with a remainder



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Loko u ava tibuloko ta 23 exikarhi ka vanhu va2, munhu un'we u ta kuma tibuloko tingani?

If you share 23 blocks between 2 people, how many blocks will each person get?



1

Munhu un'we u ta kuma tibuloko ta 11, kambe hi na yin'we leyi nga sala. Each person can get 11 blocks, but we have one left over.

Kanela leswi u nga ta swi endla hi buloko leyi nga sala. Yi veke etlhelo kumbe u yi hafula (loko u swi kota)?

Discuss what to do with the leftover block? Leave it on the side or halve it (if you can)?

Endla xifaniso ku kombisa leswi u nga avisa swona tibuloko ta 23 exikarhi ka vanhu va2.

Make a drawing to show how you shared 23 blocks between 2 people.



2

Ndzi nga ava hi va10 na va1 kutani ndzi siya yin'we leyi nga sala entileni ku komba leswaku munhu ha un'we u ta kuma hafu.

I can share the 10s and the 1s and put the left over one on the line to show that each person will get half.

Ndzi nga ava hi va10 na va1 kutani ndzi siya yin'we leyi nga sala etlhelo.

I can share the 10s and the 1s and leave the left over one on the side.

Xana u nga tsala xivulwa xihi xa tinomboro ku kombisa leswi u nga avisa swona 23 exikarhi ka vanhu va2?

What number sentence can we write to show how 23 is shared between 2 people?



3

$23 \div 2 = 11$
naswona ku sele yin'we.
and one left over.

Vuyelela magoza lama hi tinomboro tin'wana leti nga na nsalo loko ti aviwa exikarhi ka vanhu vambirhi.

Repeat the steps with other numbers that have a remainder when shared between two people.



SIKU 2 • DAY 2

Ku avela ku va na nsalo Sharing with a remainder

MENTHELE
MENTAL MATHS

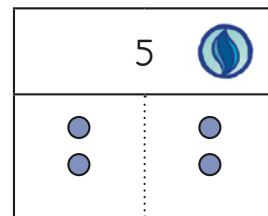
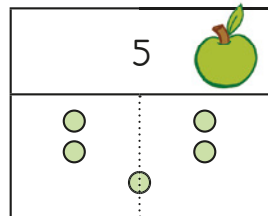
NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING



Swilo swin'wana swi nga hafuriwa.
Hi ava hi ku susa hafu! Ndzi avela
vadyondzi va2 maapula ya 5 hi
ku ringana.
Mudyodzi hi un'we u kuma maapula
ya 2 na hafu.

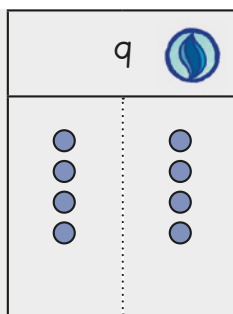
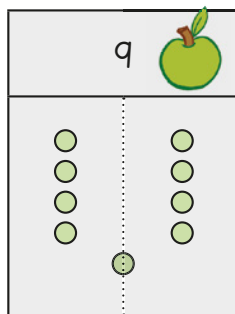
Some things can be cut in half.
We can share by cutting in half!
I share 5 apples equally between
2 learners. Each learner receives
2 and a half apples.

Swilo swin'wana a swi hafuleki.
Loko hi ava, nkarhi wun'wana hi va na
leswi salaka. Ndzi avela vadyondzi va2
timabulu ta 5 hi ku ringana.
Mudyodzi hi un'we u kuma timabulu ti2.
Ku sala mabulu yin'we.

Some things cannot be cut in half. When we
share, sometimes we have some left over.
I share 5 marbles equally between
2 learners. Each learner receives 2 marbles.
There is one marble left over.

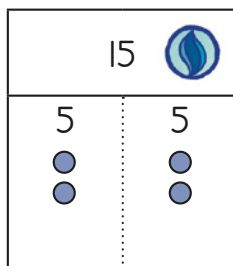
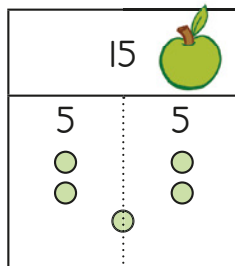
1 Avela vadyondzi va2 hi ku ringana. Mudyodzi hi un'we u
kuma tingani?

Share equally between 2 learners. How many does each learner get?



$9 \div 2 = 4$ ni hafu yil
 $9 \div 2 = 4$ and 1 half

$9 \div 2 = 4$ ku sala 1
 $9 \div 2 = 4$ and 1 left over



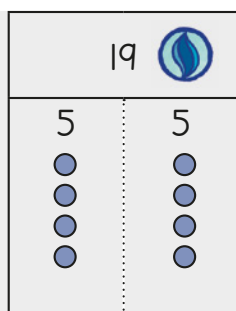
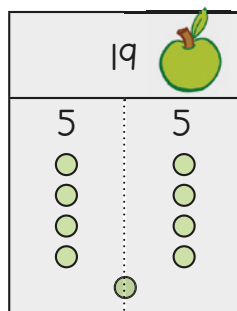
$15 \div 2 =$ _____
 $15 \div 2 = 7$ and 1 half

$15 \div 2 =$ _____
 $15 \div 2 = 7$ and 1 left over

Sharing with a remainder

- 2 Avela vadyondzi va2 hi ku ringana. Mudyodzi hi un'we u kuma tingani? Dirowa u loloxa.

Share equally between 2 learners. How many does each learner receive? Draw to solve.

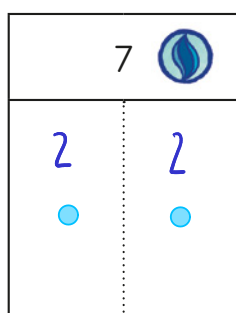
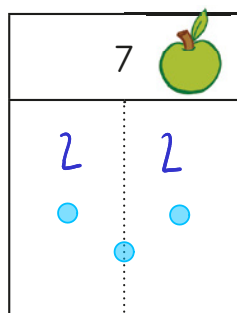


 $19 \div 2 = 9$ na hafu yil

$19 \div 2 = 9$ and 1 half

 $19 \div 2 = 9$ ku sala 1

$19 \div 2 = 9$ and 1 left over

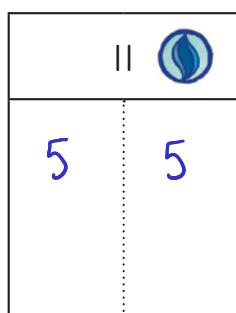
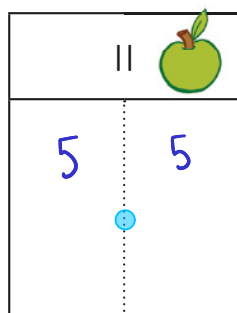


 $7 \div 2 =$ _____

$7 \div 2 = 3$ and 1 half

 $7 \div 2 =$ _____

$7 \div 2 = 3$ and 1 left over

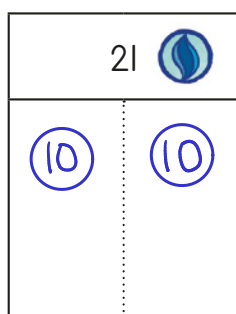
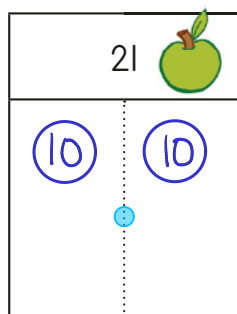


 $11 \div 2 =$ _____

$11 \div 2 = 5$ and 1 half

 $11 \div 2 =$ _____

$11 \div 2 = 5$ and 1 left over



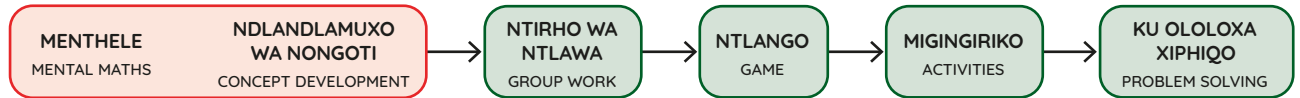
 $21 \div 2 =$ _____

$21 \div 2 = 10$ and 1 half

 $21 \div 2 =$ _____

$21 \div 2 = 10$ and 1 left over

Ku ntlawahata



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Mbuli u bakile 15 wa makokisi ku ya avelana na vanghana va yena. U veka 5 wa makokisi eka bokisi rin'wana na rin'wana. Xana u ta va na mabokisi mangani ya makokisi yo avela ha wona?

Mbuli baked 15 biscuits to share with her friends. She puts 5 biscuits in every box. How many boxes of biscuits will she have to share?



Mbuli u fanele ku ava mabokisi ma3 ya makokisi.
Mbuli will have 3 boxes of biscuits to share.

Karabo u na timavulu ta 18. U ngenisa 6 wa timbavulu eka phakiti. Xana u ta va na maphakithi mangani ya timavulu?

Karabo has 18 marbles. He puts 6 marbles in a packet. How many packets of marbles will he have?



Munghana un'wana na un'wana u ta kuma timavulu ta 6 naswona ku ta sala ti2.

Each friend will get 6 marbles and there will be 2 left over.



Vuyeleda magoza lama hi swiphiqo swin'wana swo ntlawahata swa marito. Vuyeleda magoza lama hi tinomboro tin'wana leti nga aviwaka hi ku ringana ku ri hava nsalo.

Repeat the steps with other grouping word problems. Repeat the steps with other numbers that can be divided into equal groups without a remainder.

Grouping



SIKU 3 • DAY 3

Ku ntlawahata
GroupingMENTHELE
MENTAL MATHSNDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENTNTIRHO WA
NTLAWA
GROUP WORKNTLANGO
GAMEMIGINGIRIKO
ACTIVITIESKU OLOLOXA
XIPHIGO
PROBLEM SOLVING

- 1 Sam u endla swiphutselo swa xinkhubyana eka xin'we u hoxa malekere ya 5. Xana a nga endla swiphutselo swingani swa xinkhubyana hi malekere ya 30?

Sam makes party packs by putting 5 sweets in each bag. How many party packs can she make with 30 sweets?

Loko ndzi tiva leswaku swingani swilo eka ntlawa hi wun'we, kambe ndzi nga swi tivi leswaku yingani mitlawa leyi nga kona, ndza swi ntlawahata.

When I know how many things are in each group, but not how many groups there are, I do a grouping action.



Malekere ya 5 eka xiphutselo xi 1.
5 sweets in 1 bag.



Malekere ya 10 eka swiphutselo swi 2.
10 sweets in 2 bags.



Malekere ya 15 eka swiphutselo swi 3.
15 sweets in 3 bags.



Malekere ya 20 eka swiphutselo swa 4.
20 sweets in 4 bags.



Malekere ya 25 eka swiphutselo swa 5.
25 sweets in 5 bags.



Malekere ya 30 eka swiphutselo swa 6.
30 sweets in 6 bags.

$$30 \div 5 = 6$$

Sam a nga endla swiphutselo swa 6 swa xinkhubyana.

Sam can make 6 party packs.

Khanyi u baka makokisi ya 45 a ya ma xavisa exikolweni. U hoxa makokisi ya 5 ebokisini hi rin'we. Xana u xavisa mabokisi mangani ya makokisi?

Khanyi baked 45 biscuits to sell at school. She puts 5 biscuits in each box. How many boxes of biscuits can she sell?

$$45 \div 5 = 9$$

Khanyi a nga xavisa mabokisi ya 9 ya makokisi.

Khanyi can sell 9 boxes of biscuits.

- 2 Mali u ni matapula ya 24 yo ma xavisa exitolo xa yena. U hoxa matapula ma3 exiphutselweni hi xin'we. Xana Mali u tirhisa swiphutselo swingani?

Mali has 24 potatoes to sell at her stall. She puts 3 potatoes in every packet. How many packets does Mali use?



$$24 \div 3 = 8$$

Mali u tirhisa swiphutselo swa ____.

Mali uses 8 packets.

Bogosi na Luke va paka switulu swa 70 hi tirhowu va lulamisela nhlengeletano. Rhowu hi yin'we yi ni switulu swa 10. Xana va paka tirhowu tingani ta switulu?

Bogosi and Luke pack 70 chairs in rows for assembly. Each row has 10 chairs. How many rows of chairs do they pack?



$$70 \div 10 = 7$$

Bogosi na Luke va paka tirhowu ta ____ ta switulu.

Bogosi and Luke pack 7 rows of chairs.

Samir u tirhisa tibuloko ta yena ku aka swihondzo. Xihondzo xin'wana ni xin'wana xi endliwa hi tibuloko ta 4. Xana Samir a nga aka swihondzo swingani hi tibuloko ta 28?

Samir uses his blocks to build towers. Every tower is made up of 4 blocks. How many towers can Samir build with 28 blocks?

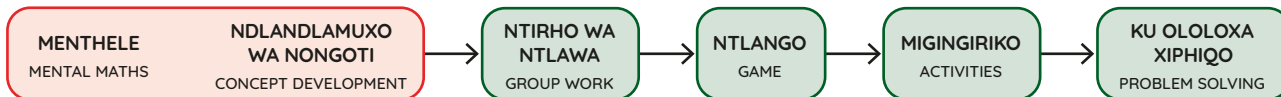


$$28 \div 4 = 7$$

Samir a nga aka swihondzo swa ____.

Samir can build 7 towers.

Grouping with remainder



NDLANDLAMUXO WA NONGOTI | CONCEPT DEVELOPMENT

Mavis u na swiluva swa 13. U veka swiluva swi3 exibyeni ha xin'we. U ta lava swibye swingani? Xana ku ta va na swiluva leswi nga ta sala?

Mavis has 13 flowers. She puts 3 flowers in every vase. How many vases will she need? Will there be any flowers left over?



Mavis u ta lava swibye swa 4 naswona ku ta sala xiluva xi 1.

Mavis will need 4 vases with 1 flower left over.

Mudyondzisi u na 26 wa tikhirayoni. U veka tikhirayoni ta 5 ebokisini ha rin'we. Xana u ta va na mabokisi mangani ya tikhirayoni? Xana ku ta va na tikhirayoni leti nga ta sala?

Teacher has 26 crayons. She puts 5 crayons in every box. How many boxes of crayons will she have? Will there be any crayons left over?



Mudyondzisi u ta va na mabokisi ya 5 ya tikhirayoni ku sala ri1.

Teacher will have 5 boxes of crayons and 1 left over.

Vuyelela magoza lama hi swiphiqo swin'wana swo ntlawahata swa marito. Nyika vadyondzi nkarhi wo hlayanyana ku ololoxa swiphiqo leswi nga na nsalo. Tiyisisa leswaku vadyondzi va vulavula hi leswi va nga swi endlaka hi nsalo leswaku va kota ku twisisa leswaku nsalo a wu fanelanga ku honisiwa.

Repeat the steps with other grouping word problems. Give the learners multiple opportunities to solve problems with remainders. Make sure learners talk about what can be done with remainders so that they realise that remainders can't be ignored.



SIKU 4 • DAY 4

Ku ntlawahata ku va na nsalo Grouping with a remainder

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

- 1 Veka timabulu ta 14 ti va ti3 hi ntlawa hi wun'we. Xana u nga endla mitlawa yingani?

Put 14 marbles into groups of 3. How many groups can you make?

$14 \div 3 = 4$ ku sala 2.

$14 \div 3 = 4$ with 2 left over.



Mikarhi yin'wana ndzi va ni swilo leswi salaka loko ndzi swi ntlawahatile.

Sometimes I have things left over after I group them.

Murimi u byala tikherotsi ta 44 emasakeni. U byala tikherotsi ta 10 esakeni hi rin'we. Xana a nga endla masaka mangani?

The farmer puts 44 carrots in bags. He puts 10 carrots in each bag. How many bags can he make?

$44 \div 10 = \underline{\quad}$ ku sala $\underline{\quad}$.

$44 \div 10 = 4$ with 4 left over.

Phumla u ni swiluva swa 25. U veka swiluva swa 4 eka vhasi hi yin'we. Xana Phumla u ta lava tivhasi tingani?

Phumla has 25 flowers. She puts 4 flowers in each vase. How many vases will Phumla need?

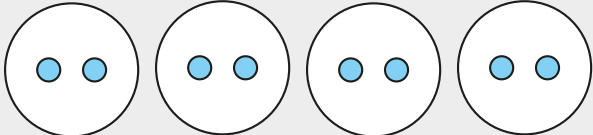
$25 \div 4 = \underline{\quad}$ ku sala $\underline{\quad}$.

$25 \div 4 = 6$ with 1 left over.

Grouping with remainder

- 2 Veka timabulu ta 8 ti va ti2 hi ntlawa hi wun'we. Xana u nga endla mitlawwa yingani?

Put 8 marbles into groups of 2. How many groups can you make?



$8 \div 4 = 2$ ku sala 0.

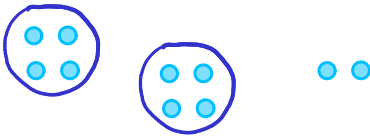
$8 \div 4 = 2$ with 0 left over.

- Veka timabulu ta 10 ti va4 hi ntlawa. Xana u nga endla swiphutselo swingani?

Put 10 marbles into groups of 4. How many groups can you make?

Tsundzuka, loko hi endla mitlawwa leyi ringanaka, mikarhi yin'wana hi va ni leswi salaka.

Remember, when we make equal groups, sometimes we have some left over.

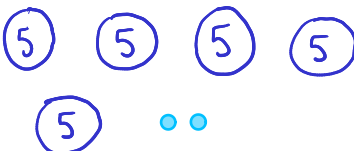



$10 \div 4 = \underline{\quad}$ ku sala 2.

$10 \div 4 = 2$ with 2 left over.

- Refilwe u paka swiphutselo swa maapula. U hoxa maapula ya 5 ka xiphutselo hi xin'we. Xana u ta paka swiphutselo swingani swa maapula loko a ri na maapula ya 27?

Refelwe is packing bags of apples. She puts 5 apples in each bag. How many bags of apples will she pack if she has 27 apples?

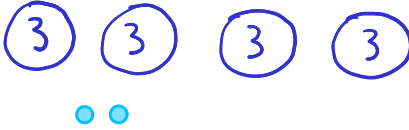


$27 \div 5 = \underline{\quad}$ ku sala 2.

$27 \div 5 = 5$ with 2 left over.

- Mandla u ni switikara swa 14 u ta avelana swona na vanghana vakwe. U nyika munghana hi un'we switikara swi3. Xana i vanghana vangani va nga ta kuma switikara?

Mandla has 14 stickers to share with his friends. He gives 3 stickers to each friend. How many friends will get stickers?



$14 \div 3 = \underline{\quad}$ ku sala 2.

$14 \div 3 = 4$ with 2 left over.



SIKU 5 • DAY 5

Nkatsakanyo Consolidation

MENTHELE
MENTAL MATHS

MAKAMBELELO
ASSESSMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIO
PROBLEM SOLVING

A hi vulavule hi Matematiki!

Let's talk Maths!



Hi Xitsonga hi ri:

In English we say:

avela

share

avanyisa

divide

Avela vadyondzi va2 maapula ya 5.

Share 5 apples between 2 learners.

Mudyodzi hi un'we u kuma 2 na hafu.

Each learner receives 2 and a half.

Avela vadyondzi va2 timabulu ta 5.

Share 5 marbles between 2 learners.

Mudyodzi hi un'we u kuma ti2.

Each learner receives 2.

Ku sala yin'we.

There is one left over.

Avanyisa 5 hi 2.

Divide 5 by 2.

1 Avela vadyondzi va4 timabulu ta 12 hi ku ringana.

Share 12 marbles equally between 4 learners.

sharing by 1s	OR	sharing by groups
		$12 \div 4 = \underline{\quad} \text{ ku sala } \underline{\quad}.$ $12 \div 4 = \underline{3} \text{ with } \underline{0} \text{ left over.}$

Avela vadyondzi va4 timabulu ta 11 hi ku ringana.

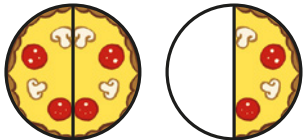
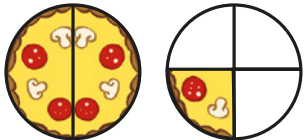
Share 11 marbles equally between 4 learners.

sharing by 1s	OR	sharing by groups
		$11 \div 4 = \underline{\quad} \text{ ku sala } \underline{\quad}.$ $11 \div 4 = \underline{2} \text{ with } \underline{3} \text{ left over.}$

Assessment and consolidation

2 Tingani tiphitsa?

How many pizzas?

	1 and a half (or $1\frac{1}{2}$)
	1 and a quarter (or $1\frac{1}{4}$)

3 Andzisa hi ku hlayela hi va5.

Extend by counting in 5s.

55	50	45	40	35	30	25	20	15	10
----	----	----	----	----	----	----	----	----	----

4

$58 - 5 = 53$	$34 - 5 = 29$	$39 - 4 = 35$
$28 + 5 = 33$	$35 - 7 = 28$	$44 - 7 = 37$
$36 + 30 = 66$	$42 + 30 = 72$	$2 + 40 = 42$
$56 - 20 = 36$	$72 - 30 = 42$	$91 - 40 = 51$

5

35	34	25
17 18	14 20	17 8

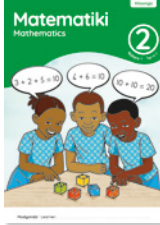
6

$2 \times 4 = 8$	$2 \times 5 = 10$	$2 \times 10 = 20$
$5 \times 2 = 10$	$5 \times 3 = 15$	$5 \times 5 = 25$

7

Hafu: Halve:	q	$4\frac{1}{2}$	18	9
Mbirhahata: Double:	q	18	18	36

Mpfuxeto

		Switirhisiwa
Menthele: Xindzhakwandzhakwana		ku hava
Ntlango: Matematiki wo hatlisa hi dayizi – andzisa hi 2, Tifurakixini		dayizi
   		
Siku	Nghingiriko wa dyondzontsongo	Switirhisiwa swa dyondzontsongo
1	Va10 na va1	LAB, makhadi ya fuladi
2	Ku hlanganisa na ku susa kufikela ka 100	LAB, ndzhati wa tinomboro wo va hava nchumu
3	Mbirihata u hafula	LAB
4	Mitlawwa ya 5 na 10	LAB
5	Tifurakixini na ku ava	LAB, dayizi

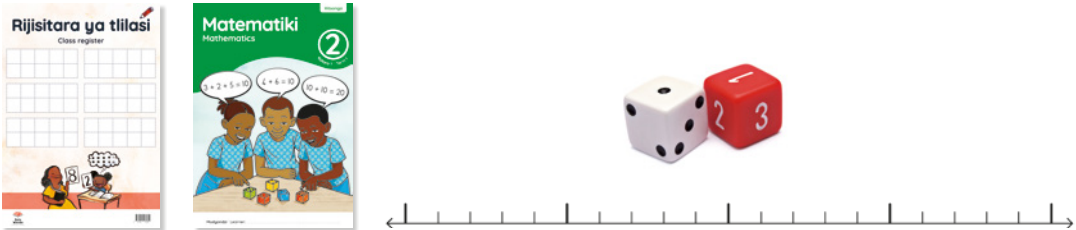
Endzhaku ka vhiki leri mudyondzi u fanele a kota ku:	✓
tirhisa tidoto na swifaniso leswi olovisiweke ku yimela tinomboro tanihi va10 na va1.	
lemuka ku fana exikarhi ka ku hlanganisa na ku susa va1 na ku hlanganisa na ku susa vakhume.	
mbirihata na ku hafula tinomboro exikarhi ka 0 na 50.	
tirhisa ku hlayela hi kutlulatlula ku andzisa hi 5 na hi 10.	
lemuka tifurakixini eka xivumbeko xa dayagiramu na ku tsala furakixini hi ku tirhisa marito hafu, n'we-xanharhu, kotara, n'we-xantlhanu na n'we-xatsevu.	
ololoxa na ku hlamusela switshunxo swa swiphiqo swo endlwa leswi ngenhisaka ku avelana hi ku ringana leswi nga na tinhlamulo leti ngenhisaka na nsalo.	

Makambeleso

Makambeleso ya mafundza ku hava vhiki leri.

U fanela ku xiyisisa vadyondzi etlilasini ya wena na ku endla tinotsi tanihi xiphemu xa makambeleso lama yaka emahlweni ya dyondzo ya nkamafundza.

Revision

		Resources
Mental Maths: Inverse operations		none
Games: Fast maths with dice – multiply by 2, Fractions		dice
		
Day	Lesson activity	Lesson resources
1	10s and 1s	LAB, flard cards
2	Adding and subtracting up to 100	LAB, blank number line
3	Double and half	LAB
4	Groups of 5 and 10	LAB
5	Fractions and sharing	LAB, dice

After this week the learner should be able to:	✓
use dots and simplified drawings to represent numbers as 10s and 1s.	
recognise the similarities between adding and subtracting ones and adding and subtracting tens.	
double and halve numbers between 0 and 50.	
use skip counting to multiply by 5 and by 10.	
recognise fractions in diagrammatic form and write fractions using the words half, third, quarter, fifth and sixth.	
solve and explain solutions to practical problems that involve equal sharing with answers that can include remainders.	

Assessment

There is no formal assessment this week.

You should observe the learners in your class daily and make notes as part of your informal ongoing assessment for learning.

Mpfuxeto

Menthele

Vhiki leri hi ta titoloveta ku tsala swivulwa swa tinomboro swa ku hlanganisa na ku susa. Hi ta tirhisa tafula ra tinomboro ku pfuna vadyondzi ku tiva vuxaka bya xindzhakwandzhakwana exikarhi ka tinomboro. Swi na nkoka eka vadyondzi ku twisisa leswaku va nga tsala swivulwa swa tinomboro swa ku hlanganisa na ku susa kusuka eka tinomboro leti nga le ka tafula ra tinomboro.

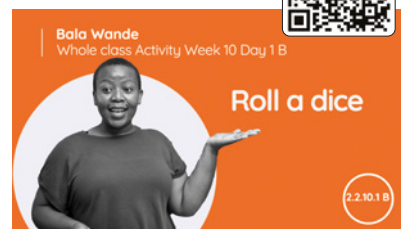
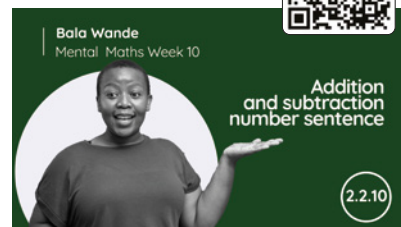
Ntlango

Mitlango hinkwayo eka vhiki leri yi mayelana na ku andzisa. Siku rin'wana na rin'wana hi tlanga ntlango wa ku andzisa ku titoloveta ku andzisa ko hambanahambana. Hi ta tlanga Matematiki wa Rivilo hi dayizi – Andzisa hi 2. Vadyondzi va ta andzisa hi 2, 5 na 10:

- Siku 1 – andzisa hi 2.
- Siku 2 – andzisa hi 2.
- Siku 3 – andzisa hi 5.
- Siku 4 – andzisa hi 10.

Swi na nkoka eka vadyondzi ku va va kota ku ololoxa swiphigo swo olova hi ku hetiseka hikuva leswi swi va nyika masungulo lama yo lulamela swiphigo swo tika swinene nkarhi lowu taka.

Eka ntlango wa tifurakixini, vadyondzi va tlanga hi vambirhimbirhi na ku cincana ku va wo rhanga ku tlanga. Va tirhisa bodo ya ntlango eka LAB na ku landzela matlangelo. Loko vadyondzi va tlanga ra vumbirhi, va tsala vito ra furakixini



Revision

Mental Maths

This week we will practise writing addition and subtraction number sentences. We will use a number table to help learners identify the inverse relationship between numbers. It is important for learners to recognise that they can write addition and subtraction number sentences from the numbers in the number table.

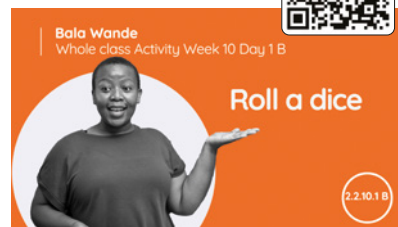
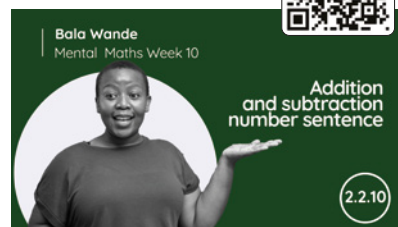
Games

The games this week are all about multiplication. Every day we play a multiplication game to practise different multiples. We will play Fast maths with dice – multiply by 2. The learners will multiply by 2, 5 and 10:

- Day 1 – multiply by 2.
- Day 2 – multiply by 2.
- Day 3 – multiply by 5.
- Day 4 – multiply by 10.

It is important for learners to be able to solve simple problems efficiently because this provides a solid foundation for more difficult problems later on.

In the Fractions game, learners play in pairs and take turns to play first. They use the game board in the LAB and follow the steps. When they play the second time, learners write the name of the fraction.



Mpfluxeto

Vhiki leri hi pfuxeta milongoti leyi dyondziweke eka kotara leyi. Vadyondzi va ta nyikiwa mikarhi yo hlayanyana ku titoloveta leswi va swi dyondzeke na ku hluvukisa vuswikoti bya vona byo ololoxa swiphiko hi ku hetiseka. Hi ta kongomisa eka:

Siku 1

Ku tirhisa tidoto na swidirowiwa leswi olovisiweke ku yimela tinomboro ta va10 na va1

Siku 2

Ku lemuka ku fana exikarhi ka ku hlanganisa na ku susa va1 na ku hlanganisa na ku susa vakhume

Siku 3

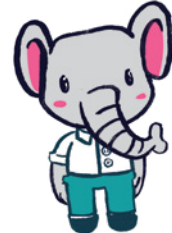
Ku mbirihata na ku hafula tinomboro exikarhi 0 na 50

Siku 4

Ku tirhisa ku hlayela hi kutlulatlula ku andzisa hi 5 na hi 10

Siku 5

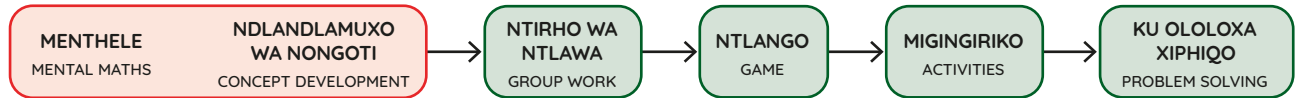
- Ku lemuka tifurakixini eka xivumbeko xa dayagiramu na ku tsala furakixini hi ku tirhisa marito hafu, n'wexanharhu, kotara, n'wexantlhanu na n'wexatsevu.
- Ololoxa na ku hlamusela switshunxo swa swiphiko swo endliwa leswi ngenhisaka ku avelana hi ku ringana leswi nga na tinhlamulo leti ngenhisaka na nsalo.



Revision

This week we revise the concepts covered this term. Learners will be given opportunities to practise what they have learnt and to develop their ability to solve problems efficiently. We will focus on:	
Day 1	
Using dots and simplified drawings to represent numbers as 10s and 1s	
Day 2	
Recognising the similarities between adding and subtracting ones and adding and subtracting tens	
Day 3	
Doubling and halving numbers between 0 and 50	
Day 4	
Using skip counting to multiply by 5 and by 10	
Day 5	
• Recognising fractions in diagrammatic form and writing fractions using the words half, third, quarter, fifth and sixth. • Solving and explaining solutions to practical problems that involve equal sharing with answers that can include remainders.	





MENTHELE | MENTAL MATHS

Ku titoloveta ku tsala swivulwa swa tinomboro swa ku hlanganisa na ku susa hi ku tirhisa tafula ra tinomboro.

Practise writing addition and subtraction number sentences using a number table.

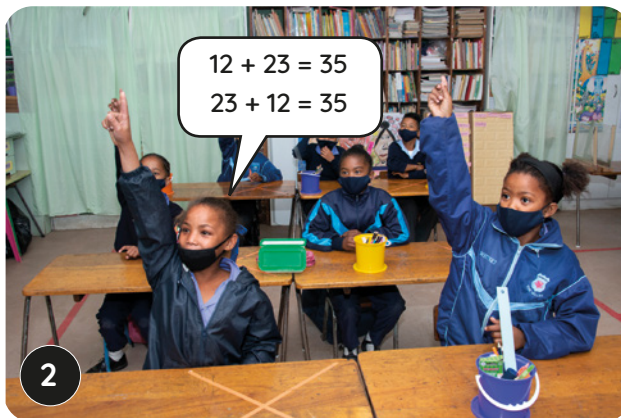
Tsundzuka ku kamba siku na ku maka rijisitara siku rin'wana na rin'wana.

Remember to check the date and mark the register every day.

Languta tinomboro eka tafula ra tinomboro.
Look at the numbers in the number table.

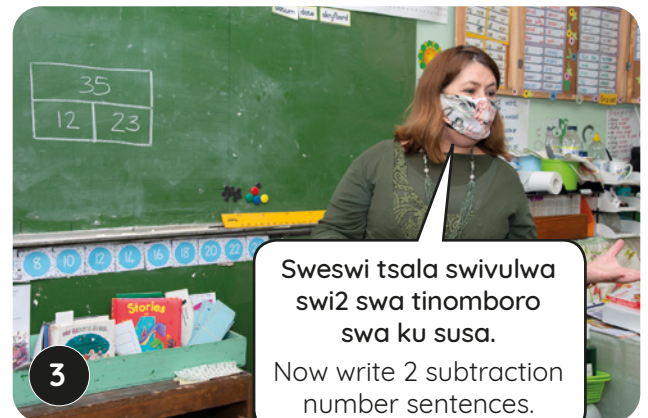


Tsala swivulwa swi2 swa tinomboro swa ku hlanganisa hi ku tirhisa tafula ra tinomboro.
Write 2 addition number sentences using the numbers in the table.



$$12 + 23 = 35$$

$$23 + 12 = 35$$



Sweswi tsala swivulwa swi2 swa tinomboro swa ku susa.
Now write 2 subtraction number sentences.



$$35 - 12 = 23$$

$$35 - 23 = 12$$



Sweswi a hi endleni gin'wana!
Now let's do another one!

10s and 1s**Migingiriko ya mfuwo • Enrichment activities****Siku 1 • Day 1**

Avela va2. Xana xi kona lexi nga sala?
Share between 2. Is there a left over?

$$24 \div 2 = \underline{\quad}$$

$$15 \div 2 = \underline{\quad}$$

$$12 \div 2 = \underline{\quad}$$

$$6 \div 2 = \underline{\quad}$$

$$9 \div 2 = \underline{\quad}$$

$$13 \div 2 = \underline{\quad}$$

$$27 \div 2 = \underline{\quad}$$

$$30 \div 2 = \underline{\quad}$$

$$11 \div 2 = \underline{\quad}$$

$$28 \div 2 = \underline{\quad}$$

Siku 2 • Day 2

Avela va3. Xana xi kona lexi nga sala?
Share among 3. Is there a left over?

$$30 \div 3 = \underline{\quad}$$

$$12 \div 3 = \underline{\quad}$$

$$21 \div 3 = \underline{\quad}$$

$$11 \div 3 = \underline{\quad}$$

$$6 \div 3 = \underline{\quad}$$

$$25 \div 3 = \underline{\quad}$$

$$15 \div 3 = \underline{\quad}$$

$$10 \div 3 = \underline{\quad}$$

$$18 \div 3 = \underline{\quad}$$

$$27 \div 3 = \underline{\quad}$$

Siku 3 • Day 3

Avela 4. Xana xi kona lexi nga sala?
Share among 4. Is there a left over?

$$16 \div 4 = \underline{\quad}$$

$$8 \div 4 = \underline{\quad}$$

$$19 \div 4 = \underline{\quad}$$

$$24 \div 4 = \underline{\quad}$$

$$12 \div 4 = \underline{\quad}$$

$$15 \div 4 = \underline{\quad}$$

$$20 \div 4 = \underline{\quad}$$

$$13 \div 4 = \underline{\quad}$$

$$28 \div 4 = \underline{\quad}$$

$$32 \div 4 = \underline{\quad}$$

Siku 4 • Day 4

Avela. Xana xi kona lexi nga sala?
Share. Is there a left over?

$$20 \div 2 = \underline{\quad}$$

$$9 \div 3 = \underline{\quad}$$

$$20 \div 4 = \underline{\quad}$$

$$7 \div 2 = \underline{\quad}$$

$$11 \div 3 = \underline{\quad}$$

$$17 \div 4 = \underline{\quad}$$

$$15 \div 2 = \underline{\quad}$$

$$21 \div 3 = \underline{\quad}$$

$$12 \div 4 = \underline{\quad}$$

$$24 \div 2 = \underline{\quad}$$



SIKU 1 • DAY 1

Va10 na va1
10s and 1s

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

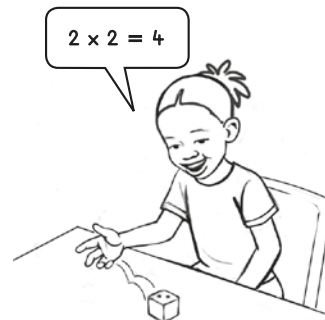
NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

Ntlango: Matematiki wo hatlisa hi dayizi - andzisa hi 2 Game: Fast maths with dice - multiply by 2

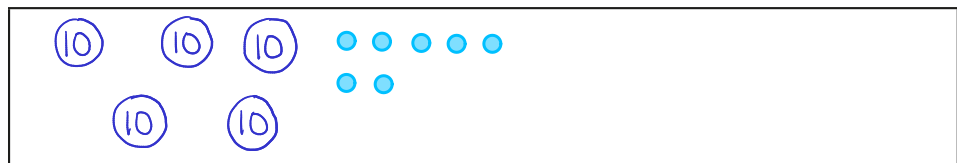
- Hoxa dayizi.
Roll a dice.
- Andzisa nomboro leyi hi 2.
Endla nakambe. Hi hatlisa!
Multiply the number by 2. Do it again. Faster!
- Tlanga ku andzisa hi 2, 5,
na 10 vhiki leri.
Play multiply by 2, 5 and 10 this week.



1 Dirowa 10 ku komba 10. Dirowa 1 ku komba 1.

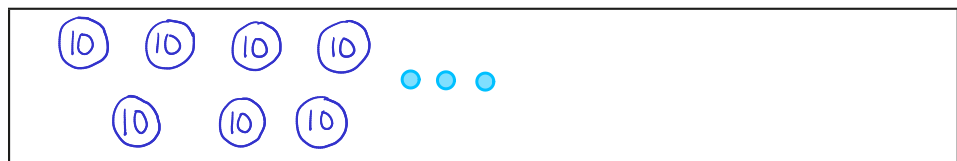
Draw 10 to show 10. Draw 1 to show 1.

57



$$57 = 10 + 10 + 10 + 10 + 10 + 7$$

73



$$73 = 10 + 10 + 10 + 10 + 10 + 10 + 10 + 3$$

2 Ololoxa!

Solve!

$$10 + 9 = 19$$

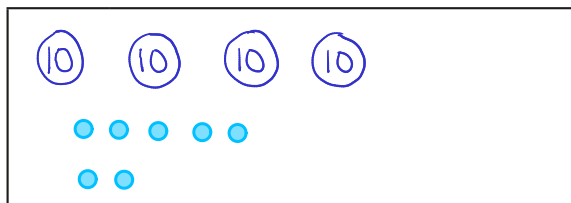
$$20 + 5 = 25$$

$$30 + 7 = 37$$

10s and 1s

3 Dirowa (10) ku komba 10. Dirowa (1) ku komba 1.

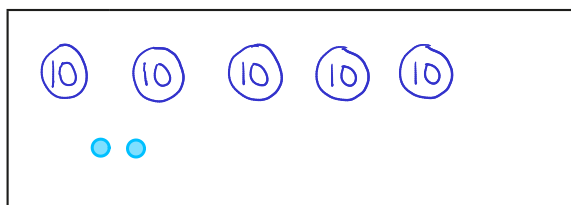
Draw (10) to show 10. Draw (1) to show 1.



$$47 = 10 + 10 + 10 + 10 + 7$$

40	7
----	---

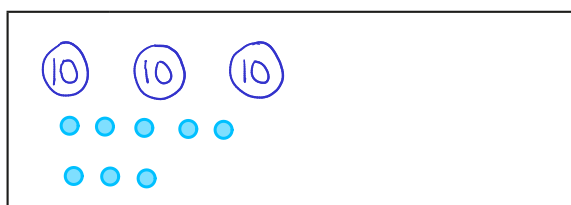
$$47 = 40 + 7$$



$$52 = 10 + 10 + 10 + 10 + 10 + 2$$

50	2
----	---

$$52 = 50 + 2$$



$$38 = 10 + 10 + 10 + 8$$

30	8
----	---

$$38 = 30 + 8$$

4 Tlhantlha hi val0 na val.

Break down into 10s and 1s.

$$28 = 10 + 10 + 8$$

$$28 = 20 + 8$$

$$43 = 10 + 10 + 10 + 10 + 3$$

$$43 = 40 + 3$$

$$59 = 10 + 10 + 10 + 10 + 10 + 9$$

$$59 = 50 + 9$$

$$84 = 10 + 10 + 10 + 10 + 10 + 10 + 10 + 10 + 4$$

$$84 = 80 + 4$$

Ku hlanganisa na ku susa kufikela ka 100

VHIKI • WEEK

10

SIKU 2 • DAY 2

Ku hlanganisa na ku susa kufikela ka 100

Adding and subtracting up to 100



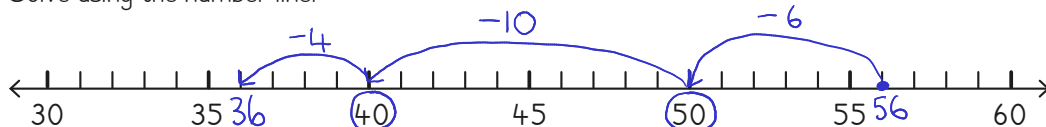
1 Ololoxa! Tirhisa tibuloko ta wena.

Solve! Use your blocks.

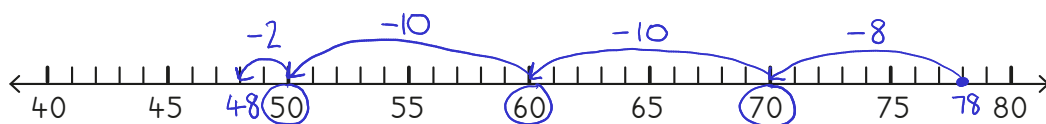
$4 + 4 = \underline{8}$	$5 + 3 = \underline{8}$	$4 + 5 = \underline{9}$
$40 + 40 = \underline{80}$	$50 + 30 = \underline{80}$	$40 + 50 = \underline{90}$
$8 - 3 = \underline{5}$	$9 - 6 = \underline{3}$	$10 - 3 = \underline{7}$
$80 - 30 = \underline{50}$	$90 - 60 = \underline{30}$	$100 - 30 = \underline{70}$

2 Ololoxa u tirhisa ndzhati wa tinomboro.

Solve using the number line.



$$56 - 20 = \underline{36}$$



$$78 - 30 = \underline{48}$$

3 Ololoxa u tirhisa tafula ra tinomboro.

Solve using the number table.

Sonke u hlaye tipheji ta 25 hi tiholodeyi. Emma u hlaye tipheji to tlula ta Sonke hi 20. Emma u hlaye tipheji tingani?

Sonke read 25 pages over the holiday. Emma read 20 more pages than Sonke. How many pages did Emma read?

45	
25	20

Adding and subtracting up to 100

4 Ololoxa.

Solve.

$41 + 5 = 46$	$65 + 5 = 70$	$47 - 5 = 42$	$60 - 4 = 56$
$36 + 4 = 40$	$57 + 4 = 61$	$69 - 4 = 65$	$50 - 2 = 48$
$52 + 7 = 59$	$72 + 6 = 78$	$58 - 6 = 52$	$70 - 3 = 67$

Noni u chaye le tikhilomitara ta 51. U chaye le tikhilomitara tin'wana ta 5. Xana u chaye le tikhilomitara tingani hinkwato?

Noni has driven 51 kilometres. She drives 5 kilometres more. How many kilometres has she driven altogether?

$$51\text{km} + 5\text{km} = 56\text{km}$$

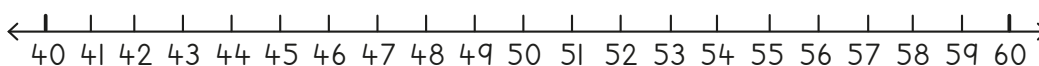
Sane u tsutsume tikhilomitara ta 32 vhiki leri hundzeke. Milisa u tsutsume ta le hansi hi 4. Xana Milisa u tsutsume tikhilomitara tingani?

Sane ran 32 kilometres last week. Milisa ran 4 less. How many kilometres did Milisa run?

$$32\text{km} - 4\text{km} = 28\text{km}$$

5 Ololoxa. Tirhisa ndzhathi wa tinomboro ku ku pfuna.

Solve. Use the number line for help.



$56 + 4 = 60$	$48 + 5 = 53$	$60 - 4 = 56$	$52 - 5 = 47$
$46 + 7 = 53$	$45 + 7 = 52$	$50 - 6 = 44$	$53 - 7 = 46$

Sesi Ntombi u xavisa makokisi ya 42. U xavisa man'wana ya 7. Xana u xavisa makokisi mangani hinkwawo?

Sis Ntombi sold 42 scones. She sells 7 more. How many scones does she sell altogether?



$$42 + 7 = 49$$

Lwazi u na R60.

U xava maapula hi R8. U sale ni mali muni?

Lwazi has R60. He buys apples for R8. How much money does he have left?

$$R60 - R8 = R52$$

VHIKI • WEEK
10 **SIKU 3 • DAY 3**
Mbirhahata u hafula
Double and halve



1 Ndzi avela vadyodzi va2 ku ringana. Mudyodzi hi un'we u kuma swingani?

I share equally between 2 learners. How much does each learner get?

Hafu ya: Half of:			
4	2	14	7
10	5	20	10
50	25	100	50

2		1	2	3	4	5	6	7	8	9	10
Mbirhahata:		2	4	6	8	10	12	14	16	18	20
Double:											

3

Mbirhahata 5
Double 5

5

5

5 kambirhi i ____.
Double 5 is 10.

Mbirhahata 15
Double 15

10

5

10

5

15 kambirhi i ____.
Double 15 is 30.

Mbirhahata 25
Double 25

10

10

5

5

25 kambirhi i ____.
Double 25 is 50.

Double and half

4

	Vadyodzi vangani? How many learners?	8
	Mahlo mangani? How many eyes?	16

vadyondzi learners	1	2	3	4	5	6	7	8	9	10
mahlo eyes	2	4	6	8	10	12	14	16	18	20

	Vadyodzi vangani? How many learners?	6
	Mahlo mangani? How many fingers?	60

vadyondzi learners	1	2	3	4	5	6	7	8	9	10
tintiho fingers	10	20	30	40	50	60	70	80	90	100

5 Khakhuleta.

Calculate.

$2 \times 3 = 6$	$2 \times 5 = 10$	$2 \times 6 = 12$	$2 \times 2 = 4$
$2 \times 1 = 2$	$2 \times 4 = 8$	$2 \times 8 = 16$	$2 \times 10 = 20$

6



Lekere rin'we i R2. Ndzi ta hakela mali muni:

One sweet costs R2. How much do I pay for:



malekere ya 3? 3 sweets?	R 6	malekere ya 5? 5 sweets?	R 10
malekere ya 6? 6 sweets?	R 12	malekere ya 10? 10 sweets?	R 20



SIKU 4 • DAY 4

Mitlawa ya 5 na 10
Groups of 5 and 10

MENTHELE
MENTAL MATHS

NDLANDLAMUXO
WA NONGOTI
CONCEPT DEVELOPMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

1

	Mabakete mangani?	5
	How many buckets?	
	Tilitara tingani?	50l
	How many litres?	

	Mabakete mangani?	7
	How many buckets?	
	Tilitara tingani?	70l
	How many litres?	

Mabakete ya 3, i tilitara tingani? 3 buckets, how many litres?	30l	Mabakete ya 6, i tilitara tingani? 6 buckets, how many litres?	60l
Mabakete ya 4, i tilitara tingani? 4 buckets, how many litres?	40l	Mabakete ya 10, i tilitara tingani? 10 buckets, how many litres?	100l

2 Khakhuleta.

Calculate.

$10 \times 3 = 30$	$10 \times 5 = 50$	$10 \times 6 = 60$	$10 \times 2 = 20$
$10 \times 1 = 10$	$10 \times 4 = 40$	$10 \times 8 = 80$	$10 \times 10 = 100$

3 Juzi yin'we i R10. Ndzi hakela mali muni eka:

One juice costs R10. What do I pay for:



tijuzi ti3? 3 juices?	R 30	tijuzi ta 5? 5 juices?	R 50
tijuzi ta 6? 6 juices?	R 60	tijuzi ta 11? 11 juices?	R 110

Groups of 5 and 10

4

	Swiphutselo swingani? How many bags?	5
	Maapula mangani? How many apples?	25

	Swiphutselo swingani? How many bags?	7
	Maapula mangani? How many apples?	35

Swiphutselo i 4, maapula mangani? 4 bags, how many apples?	20	Swiphutselo i 5, maapula mangani? 5 bags, how many apples?	25
Swiphutselo i 6, maapula mangani? 6 bags, how many apples?	30	Swiphutselo i 10, maapula mangani? 10 bags, how many apples?	50

5 Khakhuleta.

Calculate.

$5 \times 3 =$ <u>15</u>	$5 \times 5 =$ <u>25</u>	$5 \times 6 =$ <u>30</u>	$5 \times 2 =$ <u>10</u>
$5 \times 1 =$ <u>5</u>	$5 \times 4 =$ <u>20</u>	$5 \times 8 =$ <u>40</u>	$5 \times 10 =$ <u>50</u>

6 Khakhuleta. Tirhisa tintiho ta wena ku tsundzuka!

Calculate. Use your fingers to keep track!

Va5 vangani eka 20? How many 5s in 20?	4	Va5 vangani eka 25? How many 5s in 25?	5
Va5 vangani eka 30? How many 5s in 30?	6	Va5 vangani eka 50? How many 5s in 50?	10

VHIKI • WEEK
10

SIKU 5 • DAY 5

Tifurakixini na ku ava
Fractions and sharing

MENTHELE
MENTAL MATHS

MAKAMBELELO
ASSESSMENT

NTIRHO WA
NTLAWA
GROUP WORK

NTLANGO
GAME

MIGINGIRIKO
ACTIVITIES

KU OLOLOXA
XIPHIQO
PROBLEM SOLVING

Ntlango: Tifurakixini
Game: Fractions

- Tlaga ni munghana. Cincanani hi ku sungula.
Play with a friend. Take turns going first.
- Hoxa dayizi kutani u fambisa xihlayelo xa wena.
Roll the dice and move your counter.
- Vula vito ra furakixini.
Say the name of the fraction.
- Hoxa nakambe loko u be kona.
Roll again if you get it right.

Marito ya nkoka

Key words

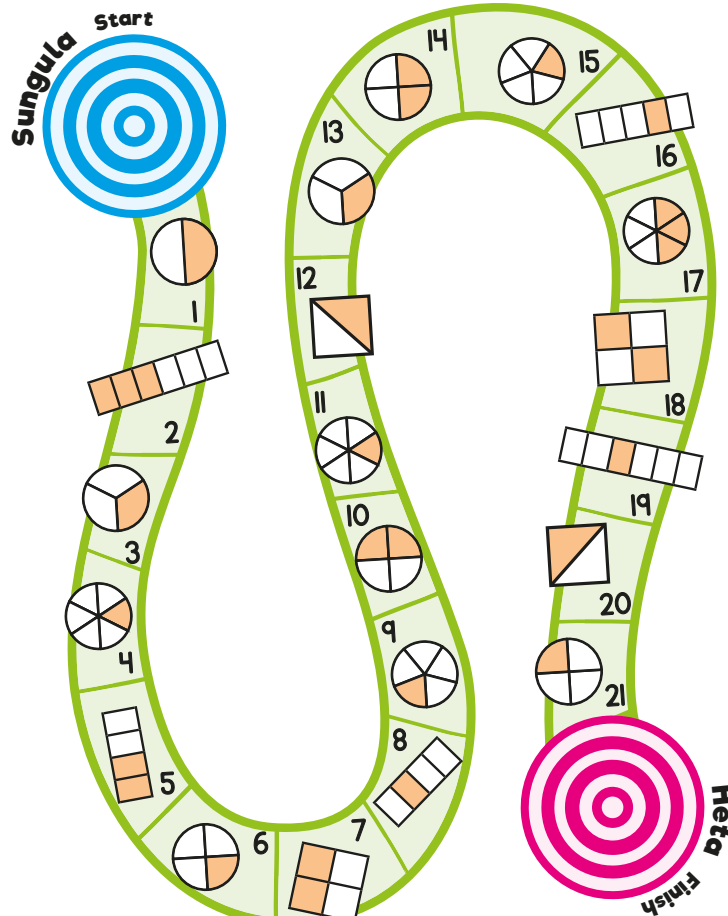
hafu yin'we
one half

n'wexanharhu
one third

n'wexamune/kotara
one fourth/quarter

n'wexantlhanu
one fifth

n'wexatsevu
one sixth



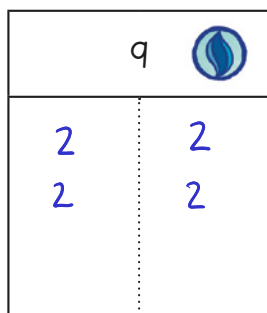
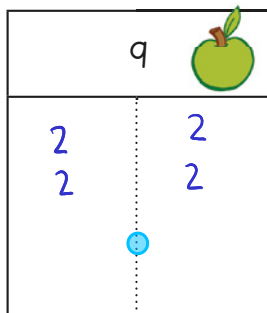
Tlaga nakambe.
Sweswi tsala vito
ra furakixini.

Play again.
This time write
the name of the
fraction.

Fractions and sharing

- 1 Avela vadyondzi va2 hi ku ringana. Mudyodzi hi un'we u kuma swingani? Dirowa u ta ololoxa.

Share equally between 2 learners. How many does each learner receive? Draw to solve.

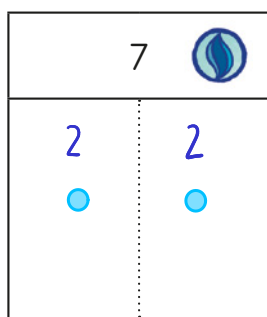
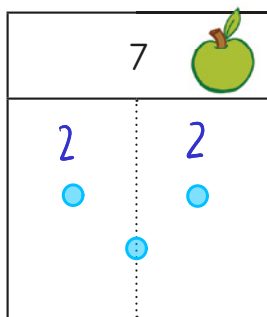


 $9 \div 2 =$ _____

 $9 \div 2 =$ 4 and 1 half

 $9 \div 2 =$ _____

$9 \div 2 =$ 4 and 1 left over

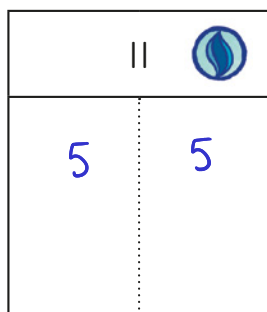
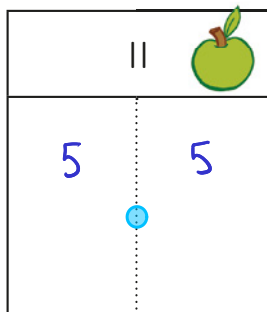


 $7 \div 2 =$ _____

 $7 \div 2 =$ 3 and 1 half

 $7 \div 2 =$ _____

$7 \div 2 =$ 3 and 1 left over



 $11 \div 2 =$ _____

 $11 \div 2 =$ 5 and 1 half

 $11 \div 2 =$ _____

$11 \div 2 =$ 5 and 1 left over

- 2 Avela timabulu. Mudyodzi hi un'we u kuma timabulu tingani? Ku sale tingani?

Share the marbles. How many marbles does each learner get? How many left over?

Avela vana va3 timabulu ta 10. Share 10 marbles among 3 children.	_____ ku sala _____. <u>3</u> and <u>1</u> left over.
Avela vadyondzi va 4 timabulu ta 10. Share 10 marbles among 4 children.	_____ ku sala _____. <u>2</u> and <u>2</u> left over.

Makambelelo ya Kotara ya 2

Eka makungu ya tidyondzontsongo ku endliwe na makambelelo ya kotara leyi. Makambelelo ma katsa misingiriko yo tsariwa, ya swanomo na yo endla. Kungu ra makambelelo hinkwawo ya Kotara ya 2 ri andlariwile etafuleni laha hansi.

Siku ra 5 ra vhiki rin'wana na rin'wana ri kunguhateriweke makambelelo na nkatsakanyo

Emavhikini ya 1, 9 na 10, a wu hleriwanga nghingiriko wa makambelelo ya mafundza. Hi siku ra 5 vadyondzi va fanele va tirhela emaphepheni yo tirhela lama kumekaka eBukwini ya Misingiriko ya Mudyondzi ya Bala Wande ku katsakanya ntirho wa vhiki. Makambelelo ya nkamafundza ma nga endliwa.

Eka mavhiki ya 3 na 4, **misingiriko ya makambelelo ya swanomo na swo endliwa** yi kunguhatiwile. U ta tirhisa misingiriko ya swo endliwa na nongoloko wo kamba/rhuburiki leyi nyikiweke eka nkatsakanyo wa vhiki ku kambela vadyondzi. Misingiriko ya swanomo na swo endla yi fanele yi endliwa vhiki hinkwaro, hi un'weun'we kumbe hi mitlawa ya vadyondzi, loko tlilasi yi tirha misingiriko ya ntirhotlilasi ya ku tirha va ri voxo.

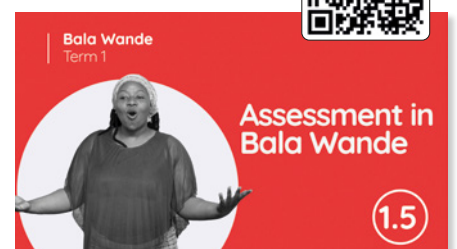
Emavhikini ya 2 kuya ka 8, ku ta endliwa **makambelelo yo tsariwa**. Wona ma kumeka eka xikatsa xa makambelelo eka tipeji leti kombisiweke etafuleni leri nga laha hansi. Loko vadyondzi va hetile nghingiriko wa makambelelo yo tsariwa, va nga tirha emaphepheni ya ntirho ya nkatsakanyo lama kumekaka eBukwini ya Misingiriko ya Mudyondzi.

U fanele u endla **makambelelo ya masugulo** hilaha xifundzhankulu xi ma lavaka hakona. Ku fanele ku tirhisiwa switirhisiwa swo pfuneta leswi humaka eka vona.

Tirhisa maphepha lama ku tirhisiwaka wona ku rhekhoda timaraka ta wena ta nghingiriko wun'wana na wun'wana.

Makambelo ya Kotara ya 2 hi lama landzelaka:

			Pheji	Maraka
Vhiki 2	Va10 na va1	Swo tsariwa	222	14
Vhiki 3	Ku hlanganisa na ku susa	Swo tsariwa	224	20
	Tinomboro, Tioparexini na Vuxaka – Xiya vadyondzi ku kambela vuswikoti bya vona ku yimela tinomboro, ku hlanganisa na ku susa.	Swanomo na ya swa ku endla	220	6
Vhiki 4	Ku andzisa	Swo tsariwa	226	14
	Matirhiselo ya Vuxokoxoko bya Tinhlayo: Tigirafu ta swifaniso. (Languta girafu ya swifaniso eka LAB, Switirhisiwa).	Swanomo na ya swa ku endla	220	5
Vhiki 5	Ku hlanganisa na ku susa (0-100)	Swo tsariwa	228	12
	Tipatironi ta tinomboro	Swo tsariwa	228	4
Vhiki 6	Mpimo – Ntiko	Swo tsariwa	230	6
Vhiki 7	Swivumbeko swa 2-D	Swo tsariwa	232	12
	Tipatironi ta jometiri	Swo tsariwa	232	3
Vhiki 8	Tifurakixini	Swo tsariwa	234	10



Term 2 assessment

The assessment for the term is designed into the lesson plans. Assessment includes written, oral and practical activities. The full assessment plan for Term 2 is provided in the table below.

Day 5 of each week is planned for assessment and consolidation

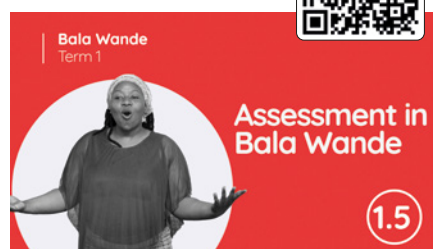
In Weeks 1, 9 and 10, there is no formal assessment activity. On Day 5 learners should work on the worksheets provided in the Bala Wandé Learner Activity Book to consolidate the work for the week. Informal assessment can be done.

In Weeks 3 and 4, **oral and practical assessment** activities are planned. You will use practical activities and the checklist/rubric provided in the week overview to assess learners. Oral and practical activities should be carried out throughout the week, individually or in groups of learners, while the class is busy with the independent classwork activities.

In Weeks 2–8, **written assessment** activities are planned. These are provided in this assessment pack on the pages indicated in the table below. After they have completed the written assessment activity learners can work on the consolidation worksheets in the Learner Activity Book.

You should carry out **baseline assessment** as required by your province. The support material provided by them should be used.

Record your marks using your standard mark recording sheets for each activity.



Term 2 assessments are as follows:

			Page	Mark
Week 2	10s and 1s	Written	222	14
Week 3	Addition and subtraction	Written	224	20
	Numbers, Operations and Relationships – Observe learners to assess their ability to represent numbers, add and subtract.	Oral and practical	221	6
Week 4	Multiplication	Written	226	14
	Data Handling: Pictographs (Refer to the pictograph in the LAB, Resources)	Oral and practical	221	5
Week 5	Addition and subtraction (0–100)	Written	228	12
	Numeric patterns	Written	228	4
Week 6	Measurement – Mass	Written	230	6
Week 7	2-D shapes	Written	232	12
	Geometric patterns	Written	232	3
Week 8	Fractions	Written	234	10

Makambelelo ya swanomu na yo endla

Tirhisa nxaxameto wa leswi kamberiwaka/ruburiki leji nga laha hansi hi mavhiki lawa yi endleriweke wona. U nga ava tllasi hi mitlawa kutani u kambela ntlawa wun'we hi siku vhiki rero u papalata ntshikilelo wo endla nghingiriko lowu na tllasi hinwayo hi siku rin'we.

Vhiki 3 Makambelelo ya Swanomo na ya swa ku endla - Tinomboro, Tioparexini na Vuxaka

Xiya vadyondzi ku kambela vuswikoti bya vona ku kombisa tinomboro, ku hlanganisa na ku susa.	Maraka: 6		
Nongoloko wo kamba: hiswona/a hiswona/u kusuhi	✓	x	●
U kota ku kombisa vun'we na vukhume hi ku tirhisa swifaniso swa tinomboro			
U kota ku kombisa va-n'we na vukhume hi ku tirhisa swifaniso swa fuladi			
U kota ku kombisa va-n'we na vukhume hi ku tirhisa tibuloko ta masungulo ya vakhume			
U kota ku hlanganisa na ku susa hi ku tirhisa swifaniso swa tinomboro			
U kota ku hlanganisa na ku susa hi ku tirhisa tibuloko ta masungulo ya vakhume			
U kota ku hlanganisa na ku susa hi ku tirhisa ndzhati wa tinomboro			

Vhiki 4 Makambelelo ya Swanomo na ya swa ku endla - Matirhiselo ya Vuxokoxoko bya Tinhlayo: Tigirafu ta swifaniso

(Languta girafu ya swifaniso eka LAB, Switirhisiwa)

Xiya vadyondzi ku kambela vuswikoti bya vona bya ku hlaya na ku hlamusela girafu ya swifaniso.	Maraka: 5		
Nongoloko wo kamba: hiswona/a hiswona/u kusuhi	✓	x	●
U kota ku tiva leswi tirhisiweke ku komba leswi nga kombisiwa eka girafu ya swifaniso (nhlayo ya mimovha leji hundzaka egedeni ra xikolo)			
U kota ku tiva khiya ra girafu ya swifaniso (movha lowu nga le hansi wu hlamusela movha wun'we eka girafu ya swifaniso wu komba leswaku movha wun'we wu hlayiwile, hi kholomu).			
U kota ku hlaya hungu kusuka eka girafu ya swifaniso - i minchumu yingani leji kombisiweke eka kholomu. (xik. Xana ku hlayeriwe mimovha yingani yo tshwuka?)			
U kota ku tiva "-tsongo" na "-tele" kusuka ka girafu ya swifaniso. (xik. Muhlovo wa mimovha yo tala leji nga voniwa a wu ri wo basa.)			
U kota ku khakhuleta ku hambana exikarhi ka minchumu ya nhlayo. (xik. ku hambana exikarhi ka nhlayo ya mimovha ya xitshopana na nhlayo ya mimovha yo tshwuka a ku ri ...)			

Tirhisa khodi ya QR ku kuma maphepha ya timaraka ya migingiriko ya makambelelo.



Phepha ra timaraka ra Funda Wande

Oral and practical assessment

Use the assessment checklist/rubric below during the weeks to which they are assigned. You could split your class into groups and assess one group per day in that week in order to remove the pressure on doing this activity with the whole class on one day.

Week 3 Oral and practical assessment – Numbers, Operations and Relationships

Observe learners to assess their ability to represent numbers, add and subtract.	Mark: 6		
Checklist: correct/incorrect/almost	✓	✗	●
Can represent ones and tens using number pictures			
Can represent ones and tens using flard cards			
Can represent ones and tens using base ten blocks			
Can add and subtract using number pictures			
Can add and subtract using base ten blocks			
Can add and subtract using a number line			

Week 4 Oral and practical assessment – Data Handling: Pictographs

(Refer to the pictograph in the LAB, Resources)

Observe learners to assess their ability to read and interpret a pictograph.	Mark: 5		
Checklist: correct/incorrect/almost	✓	✗	●
Able to use identify what is being represented in the pictograph (number of cars going past the school gate)			
Able to identify the key of the pictograph (The car at the bottom it means one car in the pictograph shows one car was counted, per column.)			
Able to read information from the pictograph – how many items are shown in a column. (e.g. how many red cars were counted?)			
Able to identify “least” and “most” from the pictograph. (e.g. the colour car seen most was blue cars.)			
Able to calculate the difference between data items. (e.g. the difference between the number of yellow cars and the number of red cars was ...)			

Use this QR code to download mark sheets for the assessment activities.



Funda Wande
mark sheet

Makambelelo go tsariwa • Written assessment

VHAKI • WEEK
2

Makambelelo Va10 na va1
Assessment 10s and 1s

Vito | Name Memorandum

Siku | Date _____

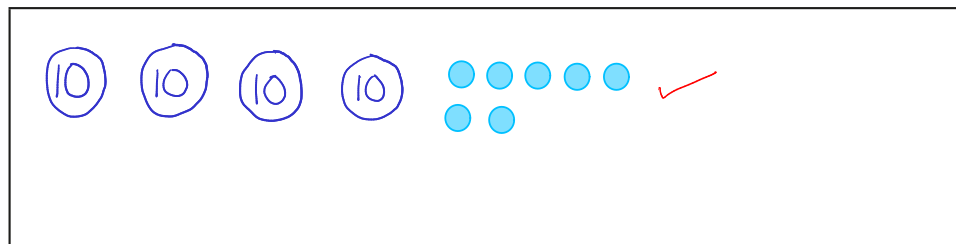
14

14

1 Dirowa ⑩ ku komba 10. Dirowa ● ku komba 1.

Draw ⑩ to show 10. Draw ● to show 1.

47



$$47 = 10 + 10 + 10 + 10 + 7 \quad \checkmark$$

vakhume va 4 ✓ van'we va 7 ✓

_____ tens _____ ones

2 Tlhantlha hi va10 na va1.

Break down into 10s and 1s.

$$38 = 10 + 10 + 10 + 8 \quad \checkmark$$

$$38 = 30 + 8 \quad \checkmark$$

$$52 = 10 + 10 + 10 + 10 + 10 + 2 \quad \checkmark$$

$$52 = 50 + 2 \quad \checkmark$$

3 Tlhantlha hi va10 na va1.

Break down into 10s and 1s.

$10 + \underline{3} = 13 \quad \checkmark$	$30 + \underline{9} = 39 \quad \checkmark$	$70 + \underline{6} = 76 \quad \checkmark$
$25 = \underline{20} + \underline{5} \quad \checkmark$	$48 = \underline{40} + \underline{8} \quad \checkmark$	$63 = \underline{60} + \underline{3} \quad \checkmark$



Vito | Name _____

Siku | Date _____

14

1 Dirowa ⑩ ku komba 10. Dirowa ● ku komba 1.

Draw ⑩ to show 10. Draw ● to show 1.

47

47 = _____

vakhume va _____ van'we va _____

_____ tens _____ ones

2 Tlhanthla hi va10 na va1.

Break down into 10s and 1s.

38 = _____

38 = _____

52 = _____

52 = _____

3 Tlhanthla hi va10 na va1.

Break down into 10s and 1s.

10 + ____ = 13

30 + ____ = 39

70 + ____ = 76

25 = ____ + ____

48 = ____ + ____

63 = ____ + ____

Makambelelo yo tsariwa • Written assessment

WEEK
3

Makambelelo
Assessment

Ku hlanganisa na ku susa
Addition and subtraction

Vito | Name Memorandum

Siku | Date _____

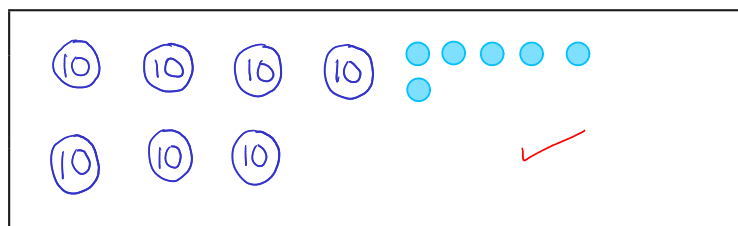
20

20

1 Dirowa ⑩ ku komba 10. Dirowa ● ku komba 1.

Draw ⑩ to show 10. Draw ● to show 1.

$$46 + 30$$



10:	1:
4	6
76	

2 Ololoxa.

Solve.

$40 + 10 = 50$ ✓	$60 - 10 = 50$ ✓	$43 + 20 = 63$ ✓	$57 - 20 = 37$ ✓
$40 + 30 = 70$ ✓	$80 - 30 = 50$ ✓	$39 + 30 = 69$ ✓	$68 - 30 = 38$ ✓
$32 + 5 = 37$ ✓	$44 + 5 = 49$ ✓	$29 - 5 = 24$ ✓	$57 - 4 = 53$ ✓
$23 + 6 = 29$ ✓	$61 + 6 = 67$ ✓	$38 - 4 = 34$ ✓	$66 - 3 = 63$ ✓

3 Busi u bake makokisi ya 48. U xavise 5. Ku sale makokisi mangani?

Busi baked 48 cupcakes. She sold 5. How many cupcakes remain?



$$48 - 5 = 43 \quad \checkmark$$

Thando u na timabulu ta 32. U wine tin'wana ta 6. U na timabulu tingani sweswi?

Thando had 32 marbles. He won 6 more. How many marbles does he have now?



$$32 + 6 = 38 \quad \checkmark$$

Vito | Name _____

Siku | Date _____

20

1 Dirowa 10 ku komba 10. Dirowa 1 ku komba 1.

Draw 10 to show 10. Draw 1 to show 1.

$$46 + 30$$

--	--

10:	1:

2 Ololoxa.

Solve.

$40 + 10 = \underline{\quad}$	$60 - 10 = \underline{\quad}$	$43 + 20 = \underline{\quad}$	$57 - 20 = \underline{\quad}$
$40 + 30 = \underline{\quad}$	$80 - 30 = \underline{\quad}$	$39 + 30 = \underline{\quad}$	$68 - 30 = \underline{\quad}$
$32 + 5 = \underline{\quad}$	$44 + 5 = \underline{\quad}$	$29 - 5 = \underline{\quad}$	$57 - 4 = \underline{\quad}$
$23 + 6 = \underline{\quad}$	$61 + 6 = \underline{\quad}$	$38 - 4 = \underline{\quad}$	$66 - 3 = \underline{\quad}$

3 Busi u bake makokisi ya 48. U xavise 5. Ku sale makokisi mangani? Busi baked 48 cupcakes. She sold 5. How many cupcakes remain? 	Thando u na timabulu ta 32. U wine tin'wana ta 6. U na timabulu tingani sweswi? Thando had 32 marbles. He won 6 more. How many marbles does he have now? 
---	--

Makambelelo go tsariwa • Written assessment

VHUKI • WEEK
4

Makambelelo
Assessment

Ku andzisa
Multiplication

Vito | Name Memorandum

Siku | Date _____

14

14

1

						I mabodhlela mangani?	6 ✓
2ℓ	2ℓ	2ℓ	2ℓ	2ℓ	2ℓ	How many bottles?	
						I tilitara tingani?	12ℓ ✓
						How many litres?	

				I mabakete mangani?	4 ✓
10ℓ	10ℓ	10ℓ	10ℓ	How many buckets?	
				I tilitara tingani?	40ℓ ✓
				How many litres?	

			I mabakete mangani?	3 ✓
5ℓ	5ℓ	5ℓ	How many pots?	
			I tilitara tingani?	15ℓ ✓
			How many litres?	

2 Khakhuleta.

Calculate.

$2 \times 5 =$ <u>10</u> ✓	$5 \times 2 =$ <u>10</u> ✓	$10 \times 2 =$ <u>20</u> ✓	$10 \times 5 =$ <u>50</u> ✓
----------------------------	----------------------------	-----------------------------	-----------------------------

3

Vana i 4, tintiho tingani? 4 children, how many fingers?	40 ✓	Vana i 6, mavoko mangani? 6 children, how many arms?	12 ✓
Vana i 7, swikunwana swingani? 7 children, how many toes?	70 ✓	Vana i 9, milenge yingani? 9 children, how many legs?	18 ✓

Vito | Name _____

Siku | Date _____

14

 2ℓ 2ℓ 2ℓ 2ℓ 2ℓ 2ℓ	I mabodhlela mangani? How many bottles?	
	I tilitara tingani? How many litres?	

 10ℓ 10ℓ 10ℓ 10ℓ	I mabakete mangani? How many buckets?	
	I tilitara tingani? How many litres?	

 5ℓ 5ℓ 5ℓ	I mabakete mangani? How many pots?	
	I tilitara tingani? How many litres?	

2 Khakhuleta.

Calculate.

$2 \times 5 = \underline{\quad}$	$5 \times 2 = \underline{\quad}$	$10 \times 2 = \underline{\quad}$	$10 \times 5 = \underline{\quad}$
----------------------------------	----------------------------------	-----------------------------------	-----------------------------------

Vana i 4, tintiho tingani? 4 children, how many fingers?		Vana i 6, mavoko mangani? 6 children, how many arms?	
Vana i 7, swikunwana swingani? 7 children, how many toes?		Vana i 9, milenge yingani? 9 children, how many legs?	

Makambelelo yo tsariwa • Written assessment

5th WEEK

Makambelelo

Ku hlenganisa na ku susa na tipatironi ta tinomboro

Assessment

Addition and subtraction and numeric patterns

Vito | Name Memorandum

16

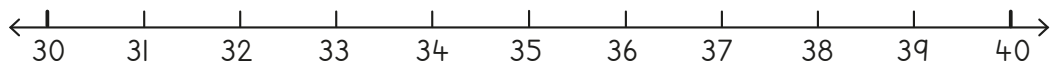
Siku | Date

16

1 Ololoxa. Tirhisa ndzhati wa tinomboro ku ku pfuna.

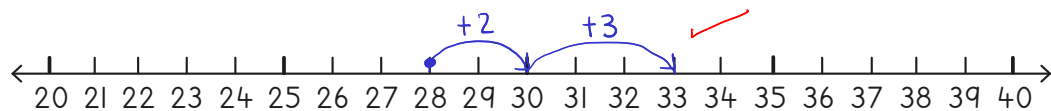
Solve. Use the number line for help.

$34 + 2 = 36$ ✓	$35 + 5 = 40$ ✓	$40 - 1 = 39$ ✓	$38 - 5 = 33$ ✓
$30 + 9 = 39$ ✓	$33 + 6 = 39$ ✓	$39 - 3 = 36$ ✓	$37 - 4 = 33$ ✓



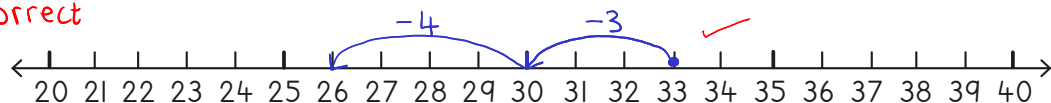
2 Tlhantlha u komba eka ndzhati wa tinomboro.

Solve by showing on the number line.



single jumps on
number line are
incorrect

$$28 + 5 = 33 \text{ ✓}$$



$$33 - 7 = 26 \text{ ✓}$$

3 Tlhantlha u tirhisa patironi ku ku pfuna.

Solve using the pattern for help.

$3 + 2 = 5$ ✓	$8 - 5 = 3$ ✓
$63 + 2 = 65$ ✓	$68 - 5 = 63$ ✓



Makambelelo

Ku hlanganisa na ku susa na tipatironi
ta tinomboro

Assessment

Addition and subtraction and numeric patterns

Vito | Name _____

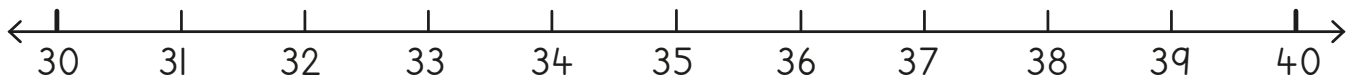
Siku | Date _____

16

1 Ololoxa. Tirhisa ndzhati wa tinomboro ku ku pfuna.

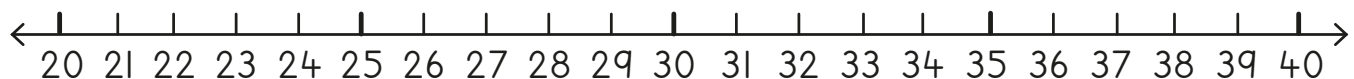
Solve. Use the number line for help.

$34 + 2 = \underline{\quad}$	$35 + 5 = \underline{\quad}$	$40 - 1 = \underline{\quad}$	$38 - 5 = \underline{\quad}$
$30 + 9 = \underline{\quad}$	$33 + 6 = \underline{\quad}$	$39 - 3 = \underline{\quad}$	$37 - 4 = \underline{\quad}$

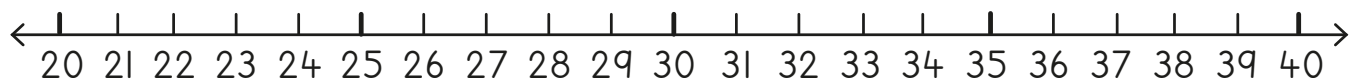


2 Tlhantlha u komba eka ndzhati wa tinomboro.

Solve by showing on the number line.



$$28 + 5 = \underline{\quad}$$



$$33 - 7 = \underline{\quad}$$

3 Tlhantlha u tirhisa patironi ku ku pfuna.

Solve using the pattern for help.

$3 + 2 = \underline{\quad}$	$8 - 5 = \underline{\quad}$
$63 + 2 = \underline{\quad}$	$68 - 5 = \underline{\quad}$

Makambelelo yo tsariwa • Written assessment

WEEK
6

Makambelelo
Assessment

Mpimo - Ntiko

Measurement - Mass

Vito | Name Memorandum

Siku | Date

6

6

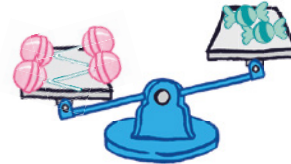
- 1 Languta swikalo swa ndzingano kutani u tata rito tika kumbe vevuka.

Look at the balance scales and fill in the word heavier or lighter.



Tiloliphopu ti _____
kutlula malekere.

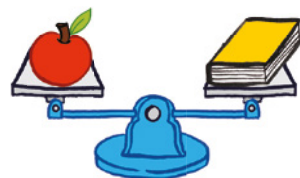
The lollipops are heavier ✓
than the sweets.



Malekere ma _____
kutlula tiloliphopu.

The sweets are lighter ✓
than the lollipops.

2



Ntiko wa buku wu
= maapula _____

Mass of book = 1 apples ✓



Ntiko wa buku wu
= tithenisi _____

Mass of book = 2 tennis balls ✓

I yini xi tikaka, apula kumbe thenisi?

Which is heavier, an apple or a tennis ball? apple ✓

3

Mahlatse u xava chukele ra 5 kg na fulawuri ya 25 kg.
Tingani tikhilogiramu tinkwato?

Mahlatse buys 5 kg of sugar and 25 kg of flour. How many kilograms altogether?

$$5\text{ kg} + 25\text{ kg} = 30\text{ kg} \quad \checkmark$$

$$5 + 25 = 30$$

is also correct

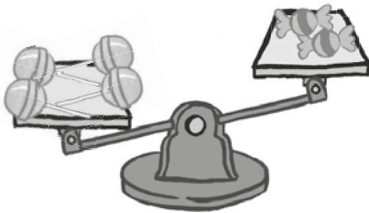
Vito | Name _____

Siku | Date _____

6

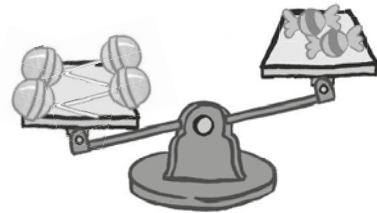
1 Languta swikalo swa ndzingano kutani u tata rito tika kumbe vevuka.

Look at the balance scales and fill in the word heavier or lighter.



Tiloliphopu ti _____
kutlula malekere.

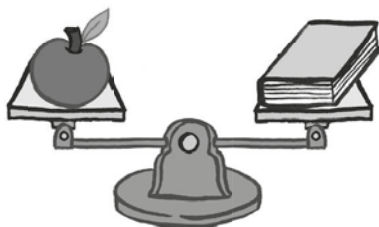
The lollipops are _____
than the sweets.



Malekere ma _____
kutlula tiloliphopu.

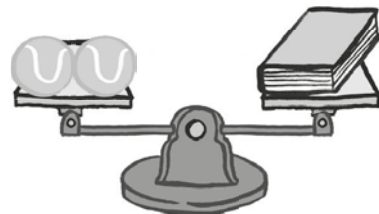
The sweets are _____
than the lollipops.

2



Ntiko wa buku wu
= maapula _____

Mass of book = _____ apples



Ntiko wa buku wu
= tithenisi _____

Mass of book = _____ tennis balls

I yini xi tikaka, apula kumbe thenisi?

Which is heavier, an apple or a tennis ball? _____

3

Mahlatse u xava chukele ra 5 kg na fulawuri ya 25 kg.
Tingani tikhilogiramu tinkwato?

Mahlatse buys 5 kg of sugar and 25 kg of flour. How many kilograms altogether?

Makambelelo yo tsariwa • Written assessment



Makambelelo
Assessment

Swivumbeko swa 2-D na tipatironi ta xijometiri
2-D shapes and geometric patterns

Vito | Name Memorandum

Siku | Date _____

15

15

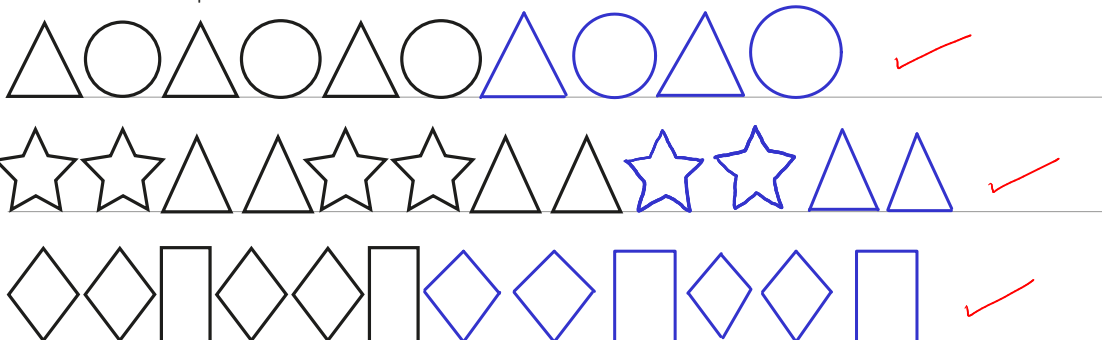
1 Tata tafula leri.

Complete the table.

	vito name	matlhelo mangani? how many sides?	rhendzeleka kumbe ololoka? round or straight?
	triangle ✓	3 ✓	Straight ✓
	circle ✓	1 ✓	curved ✓
	Square ✓	4 ✓	straight ✓
	rectangle ✓	4 ✓	Straight ✓

2 Nlandlamuxa tipatironi.

Extend the patterns.





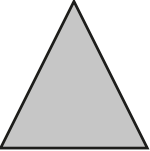
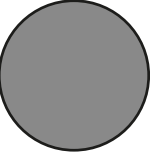
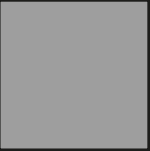
Vito | Name _____

Siku | Date _____

15

1 Tata tafula leri.

Complete the table.

	vito name	matlhelo mangani? how many sides?	rhendzeleka kumbe ololoka? round or straight?
			
			
			
			

2 Ndlandlamuxa tipatironi.

Extend the patterns.



Makambelelo yo tsariwa • Written assessment



Makambelelo Tifurakixini Assessment Fractions

Vito | Name Memorandum

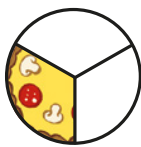
Siku | Date _____

10

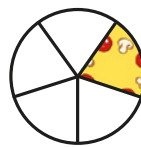
10

1 Tsala vito ra furakixini.

Name the fraction.



one third ✓
or $\frac{1}{3}$



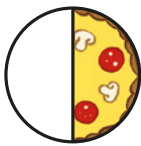
one fifth ✓
or $\frac{1}{5}$



one quarter ✓
or $\frac{1}{4}$



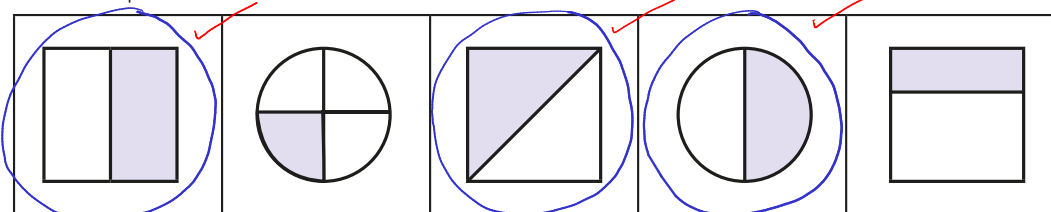
one sixth ✓
or $\frac{1}{6}$



one half ✓
or $\frac{1}{2}$

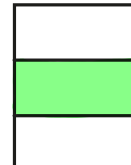
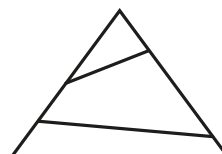
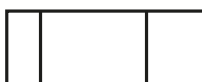
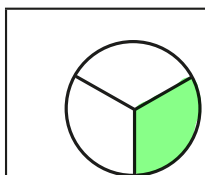
2 Bana xirhendzevutana eswifanisweni leswi kombaka hafu.

Circle the pictures that show half.



3 Khalara n'wexanharhu xa xivumbeko hi xin'we lexi avanyisiweke kanharhu.

Colour one third of each shape that is divided into thirds.



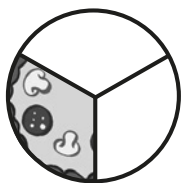
Vito | Name _____

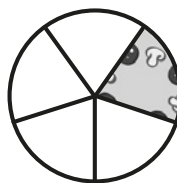
Siku | Date _____

10

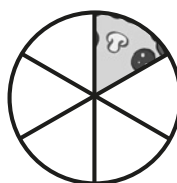
1 Tsala vito ra furakixini.

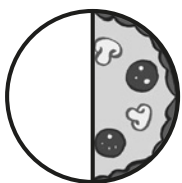
Name the fraction.





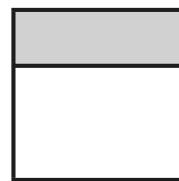
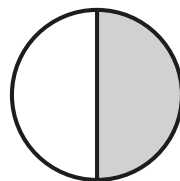
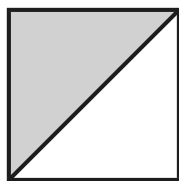
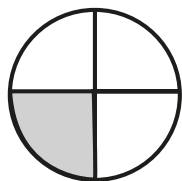
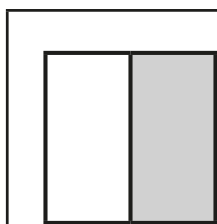






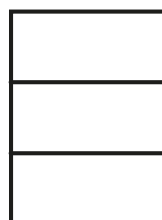
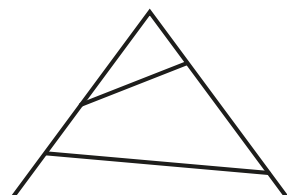
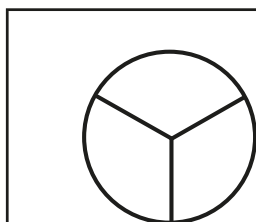
2 Bana xirhendzevutana eswifanisweni leswi kombaka hafu.

Circle the pictures that show half.



3 Khalara n'wexanharhu xa xivumbeko hi xin'we lexi avanyisiweke kanharhu.

Colour one third of each shape that is divided into thirds.



Teacher notes section with 25 horizontal dotted lines for writing.



Bala Wande

Calculating with Confidence