

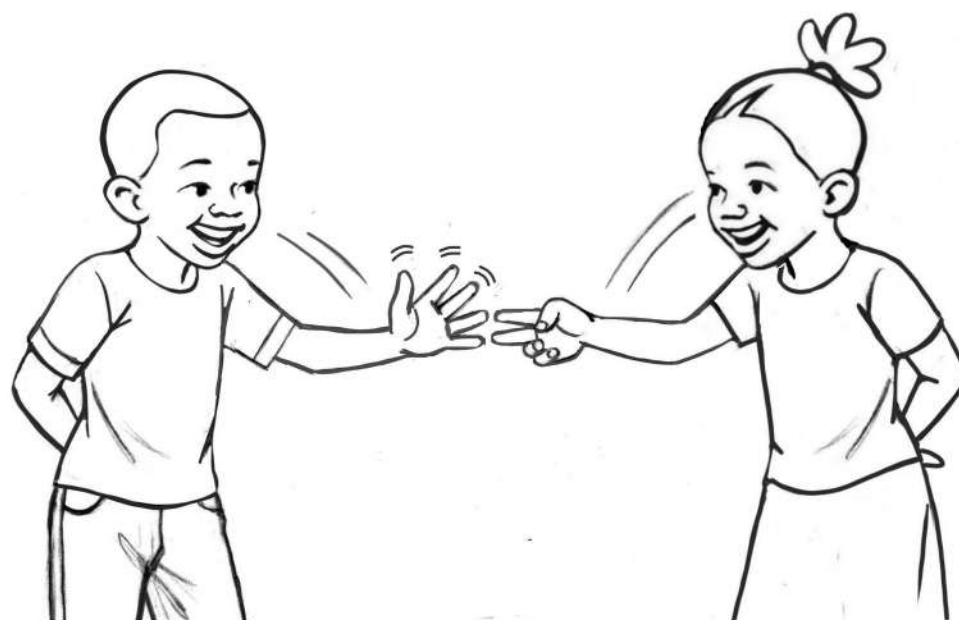


GRADE 1

MATHS LESSON STARTERS

MAGIC CLASSROOM COLLECTIVE

LESSON STARTERS WITH MANUAL





NELSON MANDELA
Institute for
EDUCATION AND
RURAL DEVELOPMENT

This book is proudly presented to you by the
MAGIC CLASSROOM COLLECTIVE.

We appreciate hearing from teachers. Please share your experiences using these materials and any suggestions you have with the Magic Classroom Collective design team.

Please email Kim (KPorteus@ufh.ac.za) or
Qhama (QNgcobo@ufh.ac.za).



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Nelson Mandela Institute, University of Fort Hare. East London.

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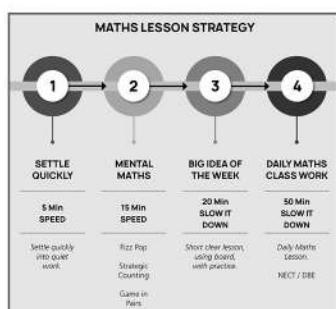
The Magic Classroom Collective is a group of teachers and educationists working together over a long time. We work together to develop strategies and materials that really work in our African language dominant classrooms. We hold the bar high for our learners, knowing they will be the creative thinkers that take this country into the future.

This book presents Lesson Starters for Grade 1 mathematics. The book is organized into two parts. The first half of the book presents weekly LESSON STARTERS. The second half of the book presents a manual explaining how to use the Lesson Starters.

What is a Lesson Starter?

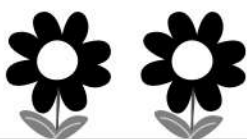
Lesson Starters are a high impact way of starting your daily maths lesson. Lesson Starters provide week by week suggestions for:

- **MENTAL MATHS:** We start each of our lessons with 10-15 minutes of mental maths. Each morning we play Fizz Pop!, we count strategically, and we play games in pairs.
- **BIG IDEA of the WEEK:** Each week we present one BIG IDEA. This is a mini lesson to emphasise a *key concept*. We explain the idea and we suggest a method for presenting the idea to learners. We spend 10-15 minutes each day teaching this idea, doing problems with learners, and asking learners to do problems on their own. By the end of the week the vast majority of our children are truly confident with this big idea!

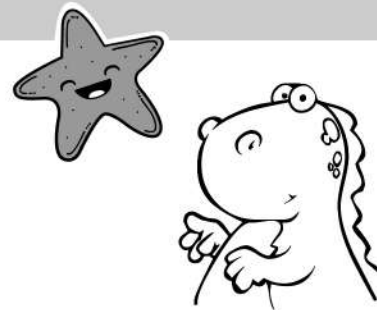


Look at the diagram on page 65. It shares the way we organise our lessons. Remember, when you are prepared, lesson starters take between 20 and 30 minutes per day. We remain with 50 minutes or more for our normal daily maths lesson.

There are 12 weeks of Lesson Starters in this booklet. That gives you time to carefully work through each week of Lesson Starters, and still have time to review before the end of the year.



INTRODUCTION



Who is Zibalo?

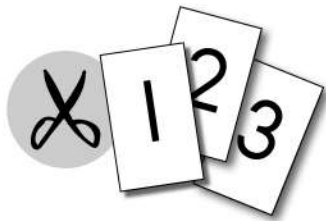
Zibalo is a dinosaur. She is very interested in mathematics. She is learning to think and act like a mathematician. Her best friend is a star in the sky named Infinity. Infinity is a mathematician. She is so high in the sky that she sees things very clearly. She always helps her friend to look, talk and think mathematics. In these Lesson Starters, Zibalo shows us the mathematics she has learned.

Getting Prepared

Making these Lesson Plans work well for you takes a bit of preparation. We recommend you take the following steps to prepare:

1. **Read the Manual:** A manual for how to use these lesson starters is presented in the second half of this book, starting from Page 63. We recommend pouring yourself a cup of tea, putting in an extra spoon of sugar, and carefully reading through this manual.
2. **Study the Week:** Each week, we present ideas for Fizz Pop, strategic counting, games in pairs and the idea of the week.
 - **Visualise and Practice the Games:** For each game, spend some time imagining how the game works. Practice playing the game with a colleague or a family member.
 - **Visualise and Prepare the Lesson of the Week:** Spend some time with the idea of the week. First, make sure you understand the big idea that is presented. We suggest some ways of introducing the idea. Study the ideas, and think about how to make them work for you in your classroom. How will you prepare the chalk board? What problems will you work through? What problems will learners try?





3. **Practice "PAIRS PREPARE":** One of the most important things we do in mental maths is to support children to work IN PAIRS to build their mathematical fluency. The first game we play is a game simply to practice our children getting into and out of pairs quickly and quietly. Practice "Pairs Prepare!". Check out Page 5, 82 - 83.
4. **Cut Number Cards:** Many of the games we play with number cards. Each child should have a set of number cards from 1 to 10. Go to Page 115 - 117. Photocopy enough sheets for children in your classroom. Support children to cut out the cards carefully. Store cards in sandwich bags.



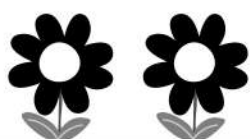
Optional Preparation - Desk Number Lines: Children benefit from looking at number lines and jumping along number lines with their fingers. We recommend cutting out the number lines on Page 107 - 111 and taping them down on learners' desktops.

Let's Go!

We know that trying new things in our classrooms is never easy. We hope that you will try these out. We have found that our learners improve their mathematics and begin to enjoy mathematics - many for the first time!

Please share your experiences, stories and any suggestions to make the Lesson Starter work better. Send any communication for the Magic Classroom Collective Maths Design Team to Qhama Ngcobo (QNgcobo@ufh.ac.za).

Best of luck for the remainder of the 2024 year!



The Magic Classroom Collective Maths Design Team



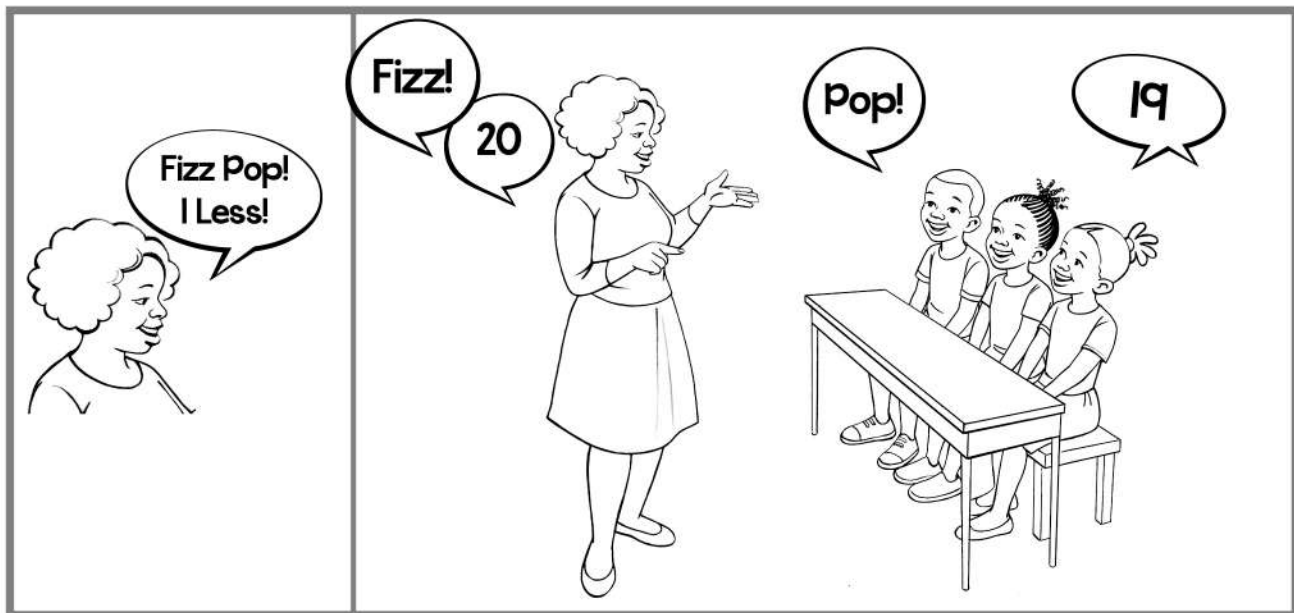
LESSON STARTERS

Week 1: Mental Maths

Fizz Pop

1 MORE and 1 LESS

- Start with numbers from 1 to 20.
- Extend to 50. Extend to 100. Can you go over 100?



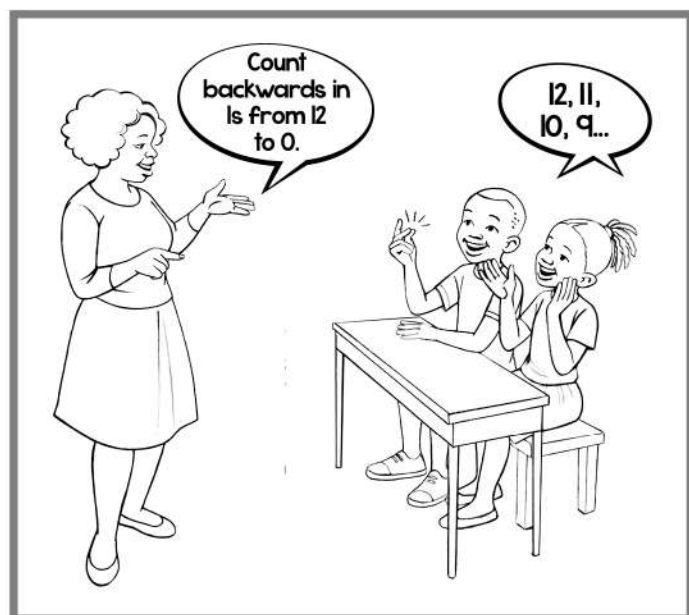
Counting Backwards in 1s

Count backwards in 1s. Call a number between 0 and 20. Learners count backwards from this number to 0. Clap on the 10.

Example:

Count backwards in ones from 12 to 0.

- Start with numbers 0 to 20.
Then go to 30.

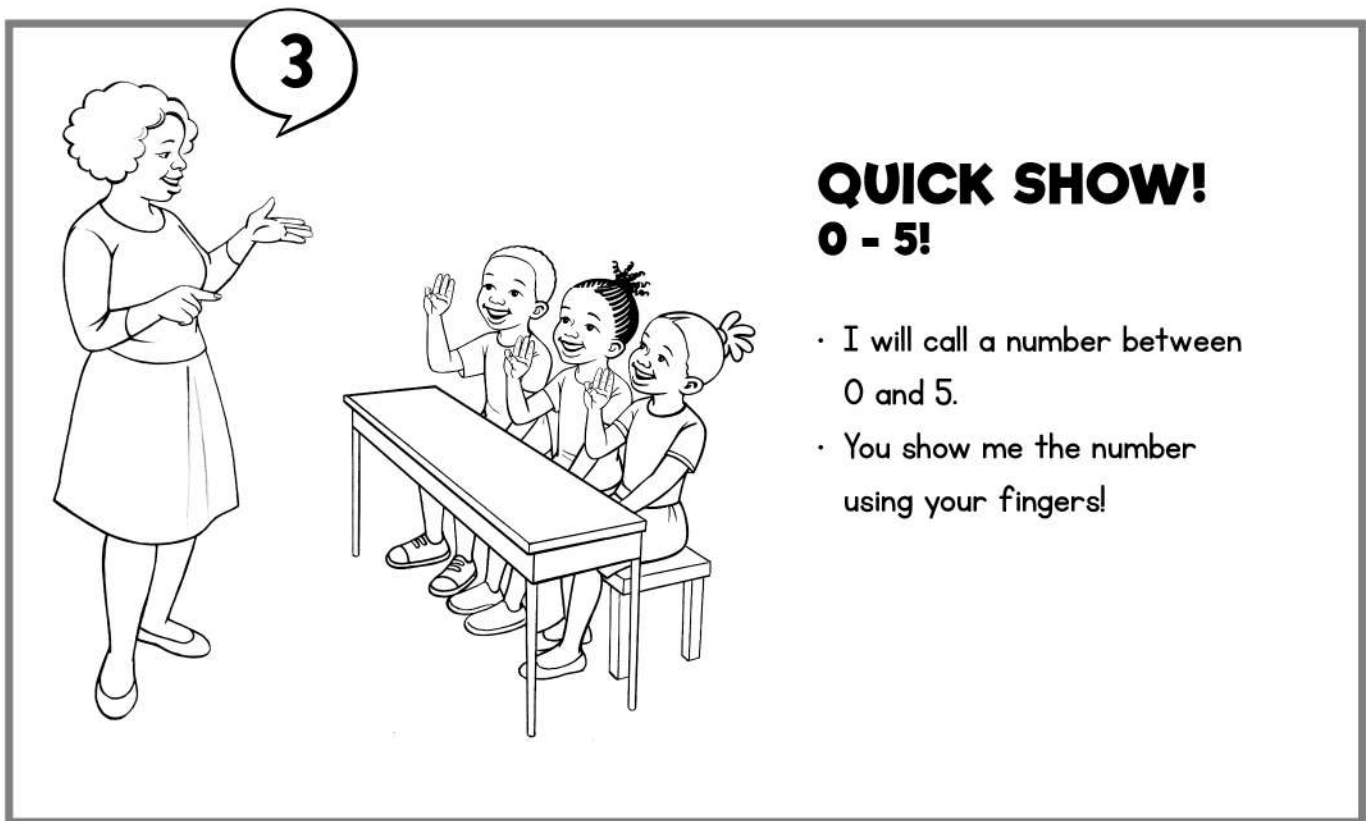


Week 1: Mental Maths

Games in Pairs

Quick Show

- Start with the whole class. Call a number from 0 to 5. Children show the number using fingers on one hand. Now play in pairs. One child calls a number between 0 and 5. The other child shows the number.



PREPARE FOR PAIRS

- Before trying pair games, spend some time preparing.
- Play "Pairs Prepare!" as many times as it takes to get good at getting into pairs quickly and quietly.
Refer to pages 82 - 83.



LESSON STARTERS

Week 1: Big Idea of the Week

Big Idea of the Week

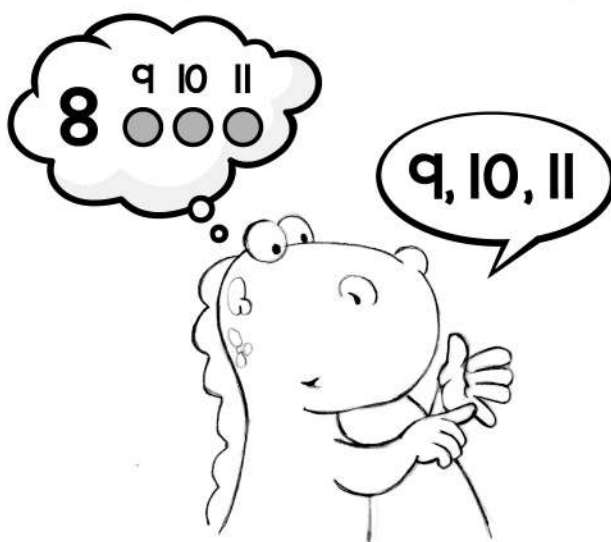
Add by Counting Forwards

In this lesson we make sure that children can **add** by counting forwards in 1s. Zibalo explains her method!

Work through Zibalo's method of adding on. Work through several examples on the board. Ask learners to demonstrate the method.

There are 8 children in the taxi. 3 more get on. How many children are in the taxi altogether ?

$$8 + 3 =$$



- When we add, numbers get bigger!
- I put the BIGGEST number in my head!
- I tap my head to make sure it is in there!
- I add by counting forwards in ones.
- I use my fingers to help.

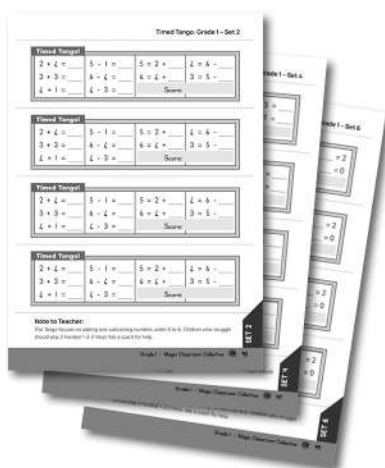


LESSON STARTERS

Week 1: Big Idea of the Week

Write five (or more) addition problems on the board each day. Children solve in their counter books. Practice Zibalo's method!

	Example:
Start with simple problems between 0 and 10.	$5 + 3 = \underline{\quad}$
Practice bonds of 10.	$6 + 4 = \underline{\quad}$
Practice "bridging" or "crossing" the ten.	$8 + 4 = \underline{\quad}$
Build toward 20.	$17 + 3 = \underline{\quad}$



FRIDAY: Timed Tango

At the end of each week remember to photocopy the correct Timed Tango (see page 94 - 105) and cut into 4. Distribute face down on desks during the break. Time 60 seconds (1 minute). Ask children to put their pencils down. Talk through answers. Children mark their own work and record their score on the Timed Tango Marking Sheet (see page 93).



LESSON STARTERS

Week 2: Mental Maths

Fizz Pop

1 LESS

- Start with numbers 1 to 20.
- Extend to 50. Extend to 100.



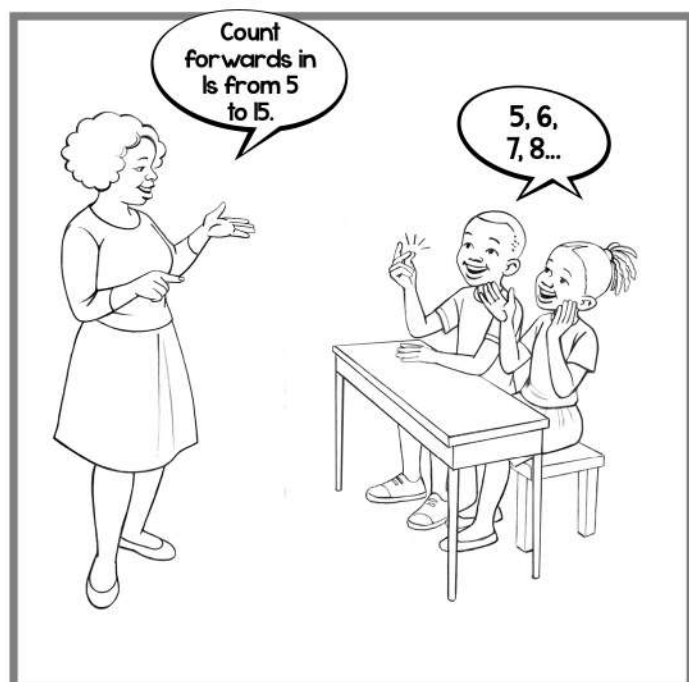
Counting Forwards in 1s

Count forwards in ones starting and ending at any number between 0 and 20.
Clap on the 10!

Example:

Count forwards in 1s starting at 5 and ending at 15. Clap on the 10!

- When we count forwards in ones we add ones.
- We call 1 the small counting number!



Week 2: Mental Maths

Games in Pairs

Children play in pairs. They say together, "123 Vesa!". They both show fingers using TWO hands. Which is larger? Which is smaller? Encourage children to use the words "more" and "less". 7 is more than 5. 5 is less than 7! If the numbers are the same, do the SAME-SAME dance!



**123 VESA:
Two Hands!**

- Play in pairs.
- Put your hands behind your back
- Say together, "1, 2, 3! Vesa!" (Show)
- Both children show fingers on two hands.
- Who has more? Who has less?
- If they are the same, do the "Same-same Dance!"

Week 2: Big Idea of the Week

Big Idea of the Week

Subtract by Counting Backwards

This week we make sure that all learners can **SUBTRACT** by counting backwards. We explain Zibalo's method!

Work through Zibalo's method of subtracting by counting back. Work through several examples on the board. Ask learners to demonstrate the method.

There are 10 children in the taxi. 3 get off. How many children remain in the taxi?

$$10 - 3 =$$



9, 8, 7

- When we subtract, numbers get smaller!
- I put the first number in my head.
- I tap my head to make sure it is in there.
- I count backwards in ones to take away ones.
- I use my fingers to keep track.



LESSON STARTERS

Week 2: Big Idea of the Week

Work through Zibalo's method for subtraction. Write 5 (or more) subtraction problems on the board. Children solve in their counter books. Support them to use Zibalo's method!

	Example:
Start with simple problems between 0 and 10.	$7 - 3 = \underline{\quad}$
Subtract from 10	$10 - 4 = \underline{\quad}$
Practice "bridging" or "crossing" the ten.	$12 - 3 = \underline{\quad}$
Build toward 20.	$18 - 5 = \underline{\quad}$



Don't forget to do the Timed Tango on Friday!

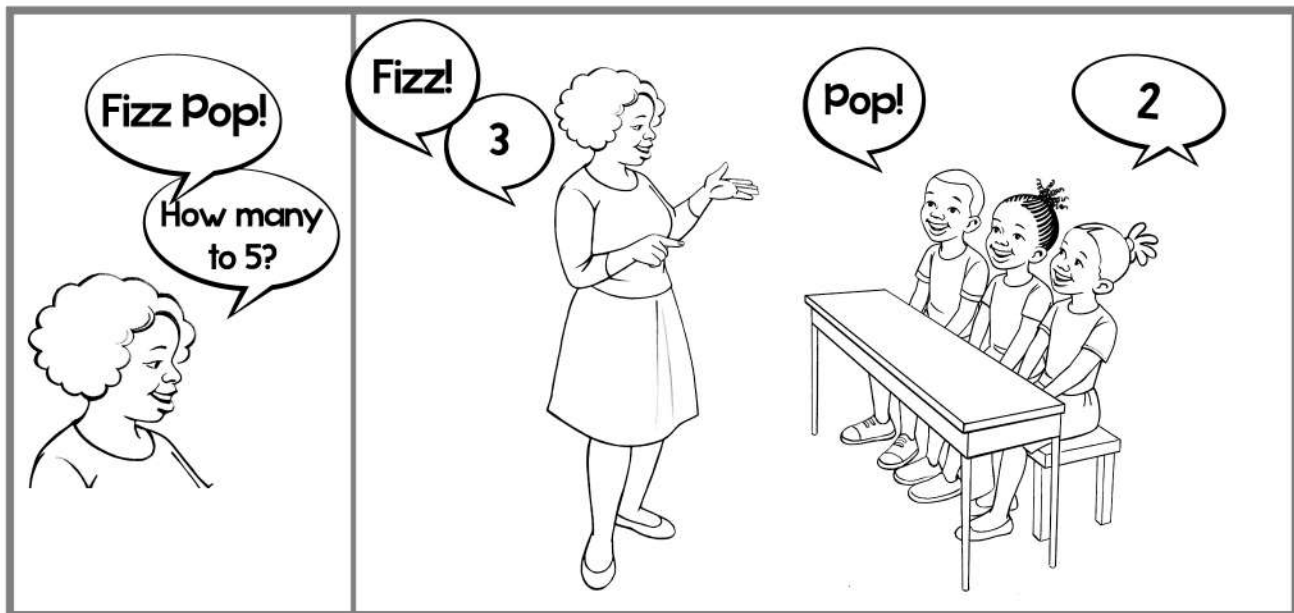


LESSON STARTERS

Week 3: Mental Maths

Fizz Pop

How many to 5?



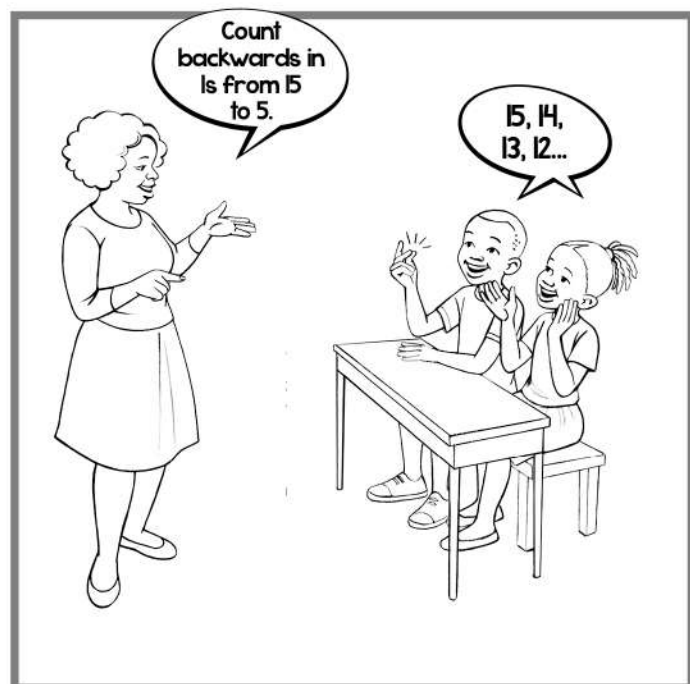
Counting Backwards in 1s

Count backwards in ones starting and ending at any number between 0 and 20. Clap on the 10!

Example:

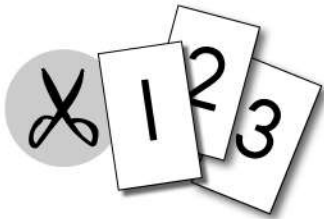
Count backwards in 1s starting at 15 and ending at 5. Clap on the 10!

- When we count backwards in ones, we subtract ones.
- We call 1 the small counting number!



Week 3: Mental Maths

Games in Pairs



- Photocopy cut-out pages for all of your learners. See Pages 115 - 117. Learners must cut out the number cards. Find a safe place to store them.

Bonds of 5

- Play in pairs with one pile of cards.
- Mix cards from 0 to 5.



Subtract

- Flip a card.
- Subtract the number from 5.



How many more to reach 5?

- Flip a card.
- How many more to reach 5?



Week 3: Big Idea of the Week

Big Idea of the Week

Number Talks

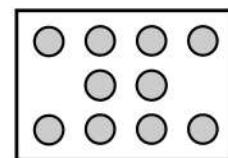
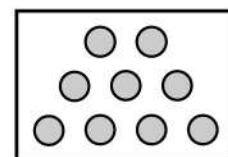
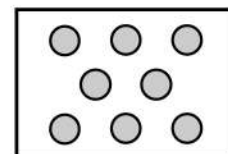
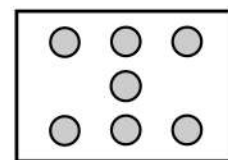
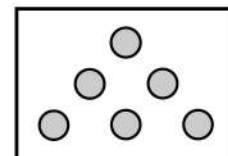
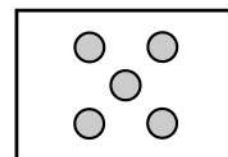
Each day this week, we have a number talk. We help children see different models for understanding numbers! Prepare a number “dot card” on an A4 piece of paper. See examples below.

Tell children that you will show them a card with dots. Ask them to quickly see how many. Encourage them to look for small groups rather than count in 1s.

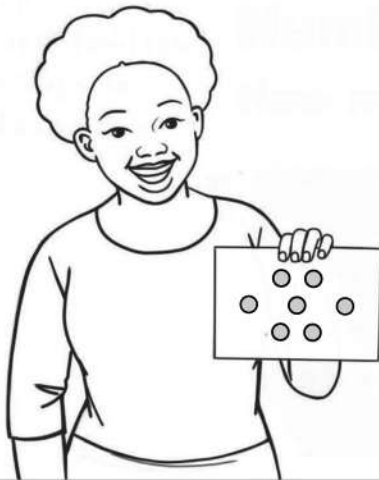
- Flash the card for 5 to 10 seconds.
- Ask children how many dots?
- Ask them to explain how they calculated how many.
- Record each child’s model on the board.
- Did anyone see the number in a different way?

Study the examples provided on this page. Try your own!

Some children may not give you the correct number. Ask them to explain how they saw how many. As they explain they are likely to modify their answer!



LESSON STARTERS



Number Talk

How many?

- Your teacher quickly flashes a dot card.
- Look quickly! How many dots?
- Explain what you see!
- Help your teacher record your model on the board!

Teacher Records

Alu 		$2 + 3 + 2 = 7$
Asanda 		$3 + 1 + 3 = 7$
Nobuntu 		$2 + 1 + 4 = 7$
Brian 		$1 + 5 + 1 = 7$



How many other ways can you see?



Week 4: Mental Maths

Fizz Pop

2 MORE

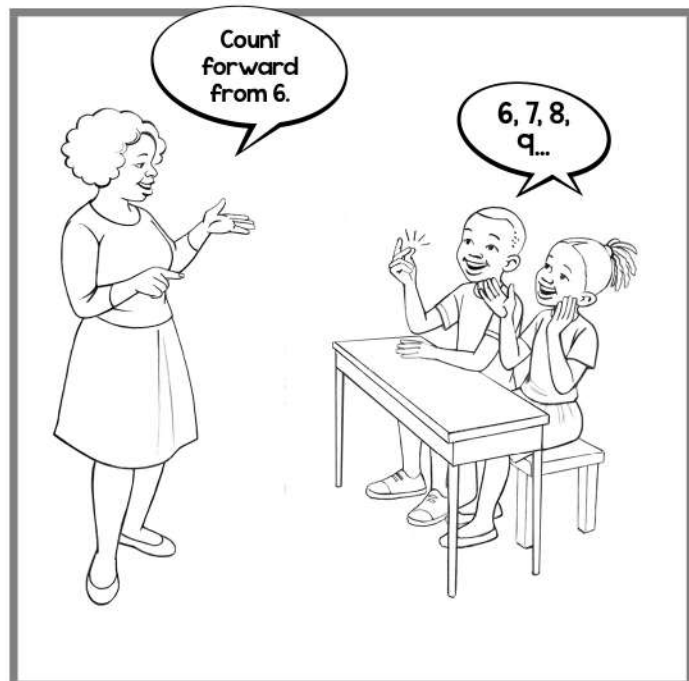
- Start with numbers 1 to 20.



Counting Forward to 10

Count forwards from any number between 0 and 10. Stop and stand up on the 10. How many to reach 10?

- Call a number from 0 to 10 (start with 6, 5, 7). 6!
- Ask children to put the number in their head. Tap your head to lock it in.
- Count forward in 1s until we reach 10: 7, 8, 9, 10! That is 4 counts forward!
- We keep track using our fingers.
- Yes 6 add 4 is 10!



Week 4: Mental Maths

Games in Pairs



Fast Cards:
One More and One Less

- Play in pairs.
- Use cards 0 to 10.
- One child flips a card.
- The other child says the number that is one more.
- Try again! Faster!
- Play again! This time calculate one less!

LESSON STARTERS

Week 4: Big Idea of the Week

Big Idea of the Week

Adding and Subtracting on a Number Line

This week we help children to do addition and subtraction on a number line. Start by walking forward and backwards on a number line. Then we walk forwards and backwards on a number line to solve simple addition and subtraction problems.

Please print and tape number lines on learners' desks. See Pages 107 - 111. You may also want to print this page for learners to work with during the week.



Counting Forward and Backward

On a Number Line

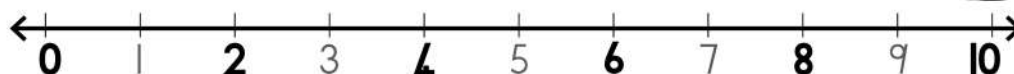
1, 2...



- Make a number line showing 10 equal steps.
 - Use tape on the floor or write on the chalkboard.
 - One child starts at 0, and takes 10 slow equal steps forward.
 - Count steps together: 0, 1, 2, 3, 4...
 - When the child reaches 10, he takes 10 slow equal steps backwards.
- Count steps together: 10, 9, 8, 7, ...



10, 9...

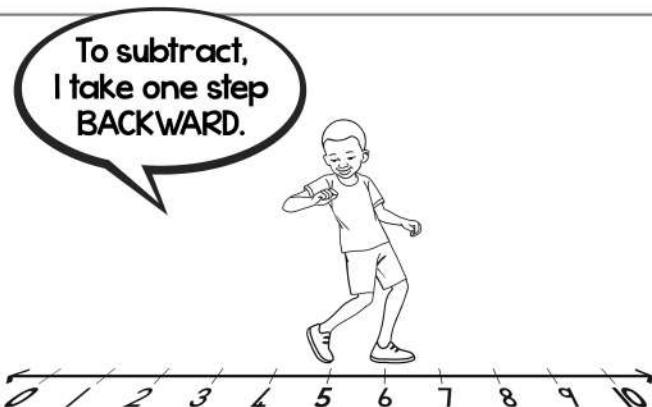
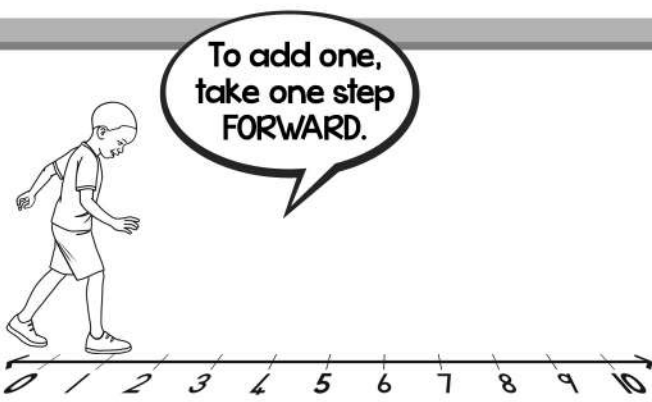


LESSON STARTERS

Week 4: Big Idea of the Week

Draw a long number chart on the chalkboard. Start by walking forwards. When we walk forwards on the number line we walk from left to right. Walk backwards. When we walk backwards on the number line we step from right to left.

Now work with learners to add and subtract on the number line. Work through the example below. We start at a number. We walk forwards to add. We walk backwards to subtract. Support children to hop using their fingers on the number lines taped to their desks. Do another problem together.



MAKE A NUMBER LINE!

Use masking tape on the floor, OR draw with chalk outside, OR draw on the chalkboard.

- Label the start: 0 (zero.)
- Label 1, 2, 3... at equal steps. Stop at 10.

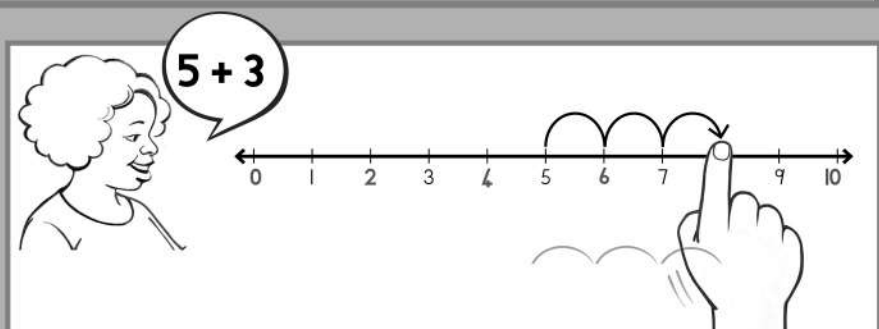
$$4 + 2 - 1 + 4 - 3 =$$

- I start at 4!
- I take two steps forward. I am at 6!
- I take one step backwards. I am at 5!
- I take four steps forward. I am at 9!
- I take three steps backwards.

I am at...



Put addition and subtraction problems on the board. Ask children to solve by using their finger to hop forwards and backwards on the number lines taped to their desks.



Don't forget to do the Timed Tango on Friday!

WEEK 4



Week 5: Mental Maths

Fizz Pop

2 LESS

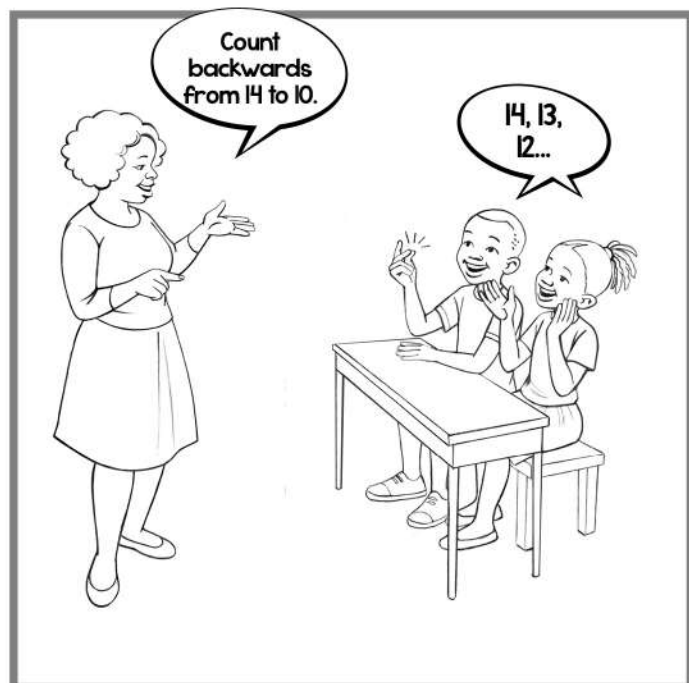
- Start with numbers 1 to 20.



Counting Backwards in 1s to 10

Count backwards from any number between 13 and 20. Stop and stand up on the 10. How many to reach 10?

- Call a number between 13 and 20. 14!
- Ask children to put the number in their head. Tap your head to lock it in!
- Count backwards in 1s until we reach 10: 13, 12, 11, 10! That is four counts!
- We keep track using our fingers.
- Yes 14 take away 4 is 10!



Week 5: Mental Maths

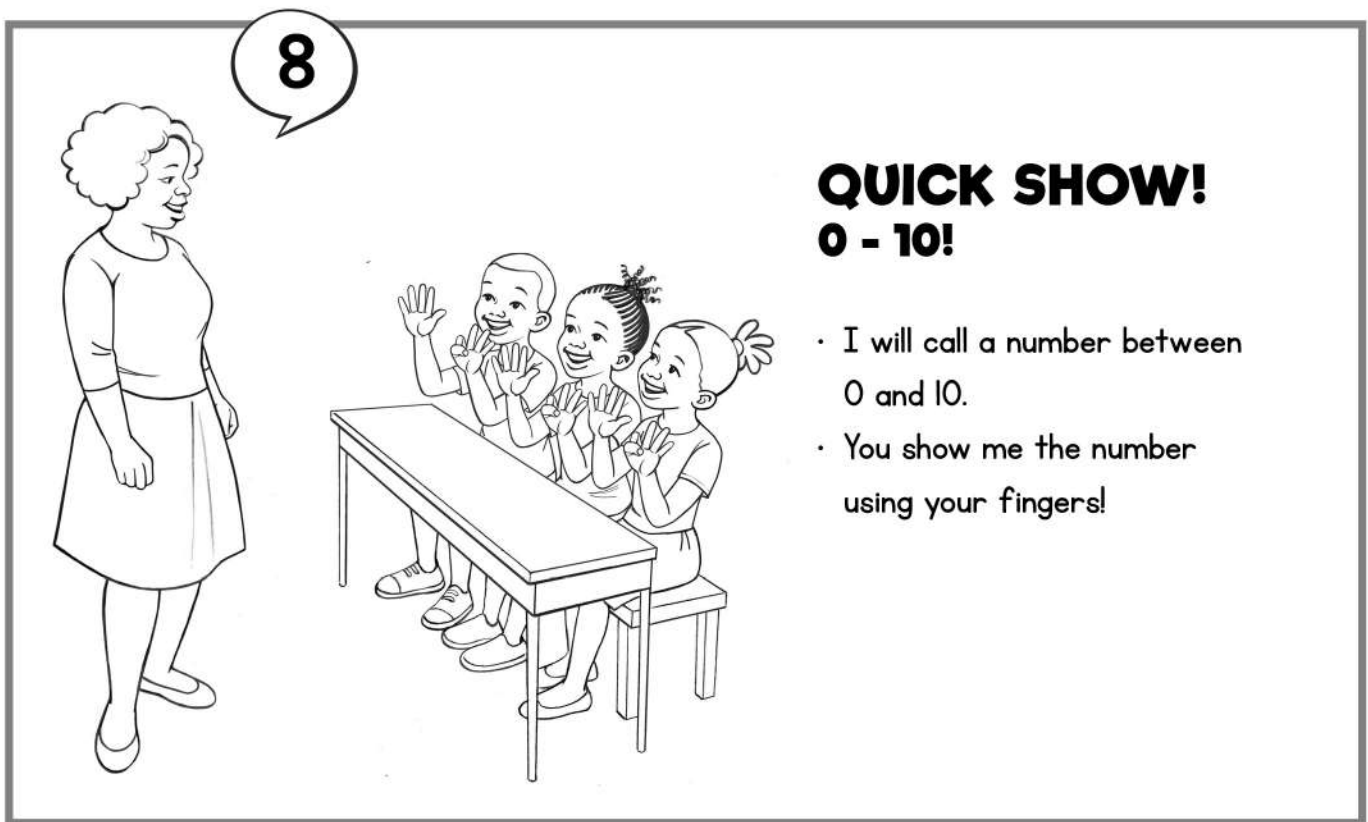
Games in Pairs

Quick Show to 10!

Start with the whole class. Call a number from 0 to 10. Children show the number using fingers both hands.

- Yes 5 and 3 is equal to 8.

Now play in pairs. One child calls a number between 0 and 10. The other child shows the number using both hands.



LESSON STARTERS

Week 5: Big Idea of the Week

Big Idea of the Week

Thinking in 2s

When we think in 2s, we imagine whether a number is even or odd. In this lesson we help children to draw number pictures organised into 2s.

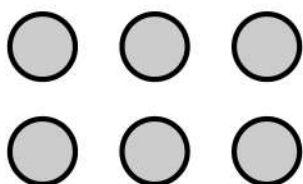
When we share sweets equally between 2 children, each child receives half. When there are no sweets left over, the number is even. When there is one sweet left over, the number is odd.



Let's put on our 2 glasses!
When we wear our 2 glasses, we think in 2s!

Zibalo loves drawing numbers. Today she draws numbers organised into 2s. Look carefully!

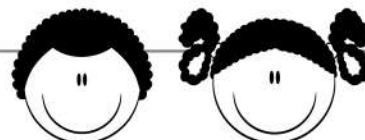
6



Carefully study Zibalo's drawing. Can you see that she drew the number organised into twos?



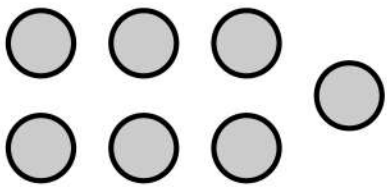
I can see 6 is an EVEN number!
When I share 6 equally between 2 children, each child receives 3. And there are none left over! Can YOU see?



LESSON STARTERS

Week 5: Big Idea of the Week

7



I can see 7 is an ODD number!
When I share 7 equally between
2 children, each child receives 3.
And there is 1 left over!
Can you see?



Write an even and an odd number on the board. Start with numbers between 0 and 10. Build up to 20!

Ask children to draw the number organised into twos. Look at Zibalo's drawing together!

Is the number even or odd? How do you know?

When you share sweets equally between 2 children, how many does each child receive? How many are left over?



Don't forget to do the Timed Tango on Friday!

WEEK 5



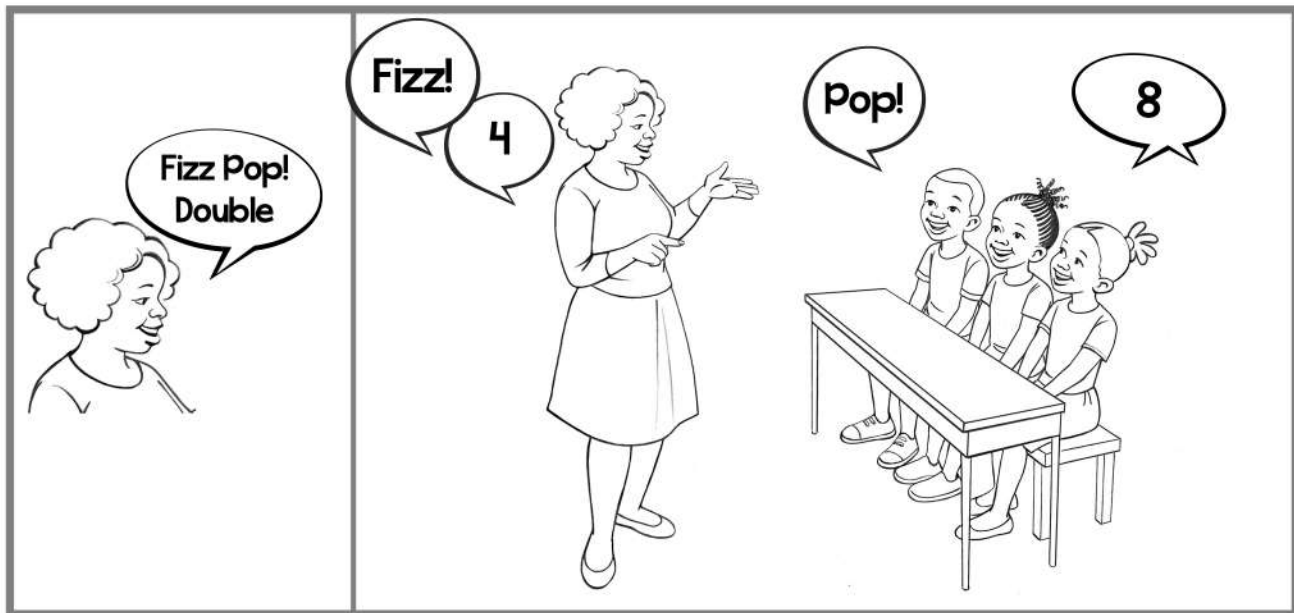
Week 6: Mental Maths

Fizz Pop

Double!

You call a number. Children double the number.

Start with numbers 0 to 5. Can you go to 10?



Counting Forwards in 2s

Count forwards in 2s. Start and end with any number between 0 and 100. Start with both even and odd numbers.

Example:

- Count forwards in 2s from 0 to 20.
- Count forwards in 2s from 24 to 50.
- Count forward in 2s from 1 to 31.



LESSON STARTERS

Week 6: Mental Maths

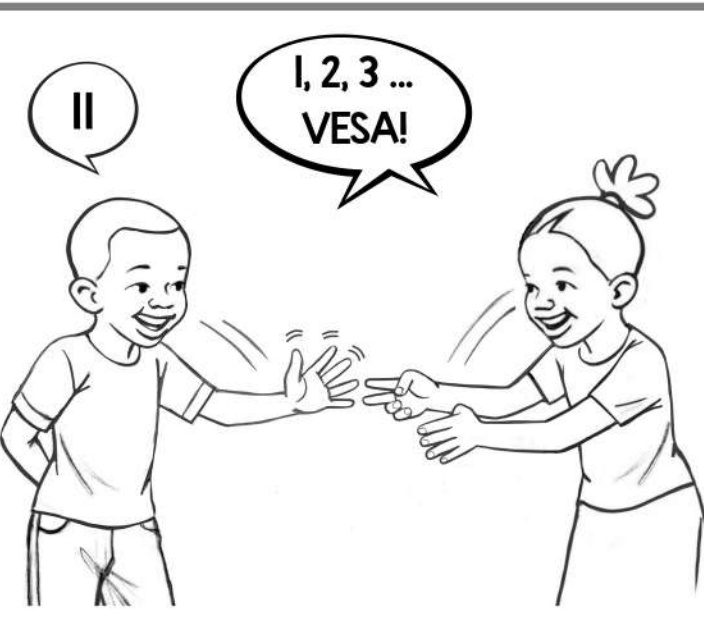
Games in Pairs



**123 VESA:
ADD!**

- Play in pairs.
- Put your hands behind your back.
- Say together, "1, 2, 3! Vesa!" (Show)
- Both children show fingers on one hand.
- Take turns adding up the fingers!
- Do again! Faster!

When children are ready, ask one child to use both hands!



**123 VESA
ADD: 3 hands**

- Play in pairs.
- Put hands behind back.
- Say together, "1, 2, 3! Vesa!" (Show)
- One child shows some fingers using ONE hand.
- The other child shows some fingers using TWO hands.
- Add together! Take turns!
- Do again! Faster!



Week 6: Big Idea of the Week

Big Idea of the Week

Addition and Subtraction Are Cousins!

This week we make sure that children understand the relationship between addition and subtraction. Addition and subtraction are cousins!

This week we look at the relationship between addition and subtraction by focusing on a number, breaking it down, and building it up again. We talk about what we are doing using addition and subtraction sentences.

To prepare for this lesson, PRACTICE the “Addition Subtraction Jive.” You must be proficient at the jive before you introduce it to your learners. Practice with a colleague.

Look carefully at the illustrations. The girl does the “Addition Subtraction Jive” starting with the number 5, and breaking it down to 2 and 3. The number family is 5, 2 and 3. Note that we do two things in this dance:

1. We break down and build up 5.
2. We talk about this with addition and subtraction sentences.

In this lesson, we suggest you do the following:

STEP 1: Do the Addition Subtraction Jive: When you know the dance for yourself, you can teach it to your learners. Work through the jive carefully with your learners. Say each number sentence carefully and slowly and relate it to the



**If you have cubes,
work with cubes. If you
do not have cubes, work
with counters.**

Week 6: Big Idea of the Week

cubes you are breaking down and building up. Ask a learner who understands the dance to show it to the rest of the class who are still working on it. Once children know the dance slowly, ask them to try it faster!

STEP 2: Write Number Sentences: Write the number sentences you find in the Addition Subtraction Jive. (Working together, write them on the board. Over time ask learners to write them in their counter books.) Remind yourselves of how your work with the 5 cubes demonstrates each sentence!

STEP 3: Eight Number Sentences: For every number family, we can write EIGHT addition and subtraction sentences. You may want to explore the full 8 number sentences. We present them below. Can your learners show each number sentence using their cubes?

$5 = 2 + 3$	$5 - 3 = 2$	$2 + 3 = 5$	$2 = 5 - 3$
$5 = 3 + 2$	$5 - 2 = 3$	$3 + 2 = 5$	$3 = 5 - 2$

Each day, do the Addition Subtraction Jive with another number family. You find a number family by starting with a number and breaking it into two pieces. For example, 6, 4 and 2 are number families. 7, 3 and 4 are number families.

If you choose an EVEN number, and break it into two EQUAL pieces you will see something a bit different. Try it out!

LESSON STARTERS

Week 6: Big Idea of the Week

LET'S PLAY: The Addition – Subtraction Jive!



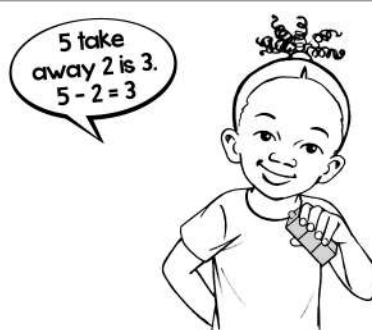
- Make a 5-train.



I break 5
into 2 and 3.

- Break it into 2 parts.
Put one piece in each of
your hands.

$$5 = 3 + 2$$



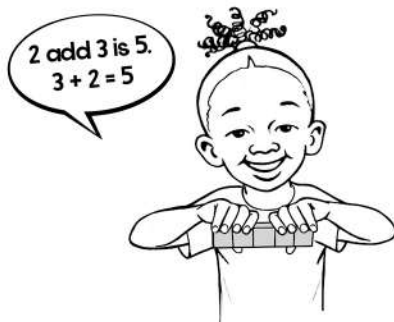
5 take
away 2 is 3.
 $5 - 2 = 3$

- Put the 2 behind
your back.

$$5 - 2 = 3$$



- Bring the 2 back again.



2 add 3 is 5.
 $3 + 2 = 5$

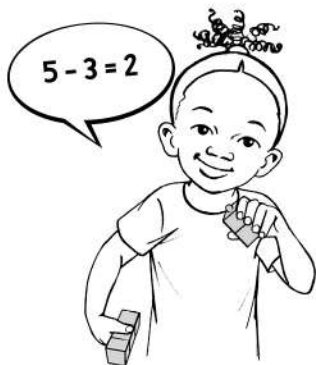
- Put the parts together.

$$3 + 2 = 5$$



- Break again!

$$5 = 3 + 2$$



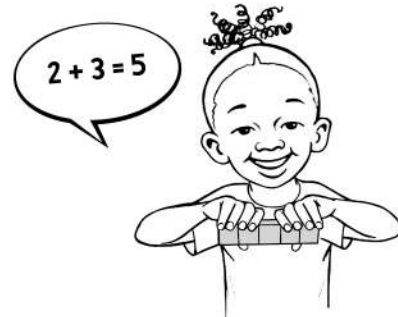
$5 - 3 = 2$

- Now put the 3 behind
your back.

$$5 - 3 = 2$$



- Bring the 3 back again.



$2 + 3 = 5$

- Put the parts together.

$$2 + 3 = 5$$

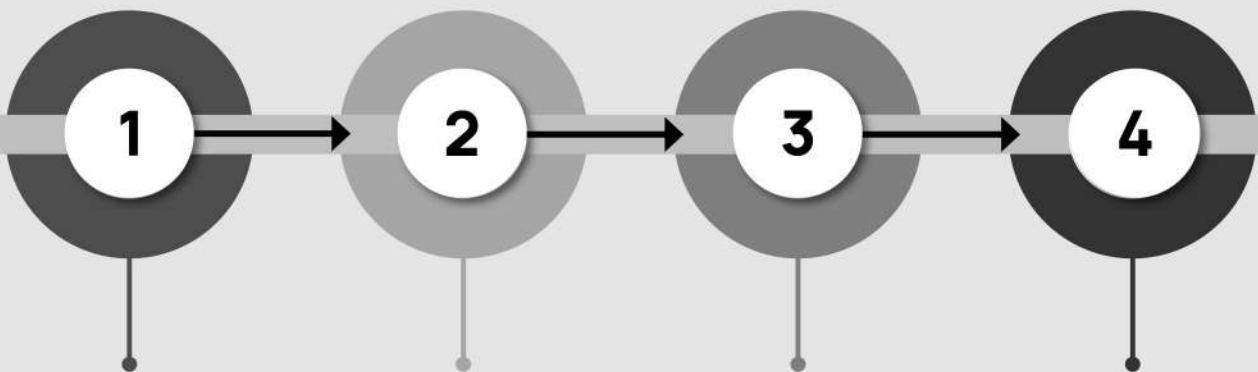
LESSON STARTERS

Week 6



Don't forget to do the Timed Tango on Friday!

MATHS LESSON STRATEGY



SETTLE QUICKLY

5 Min
SPEED

Settle quickly into quiet work.

MENTAL MATHS

15 Min
SPEED

Fizz Pop
Strategic Counting
Game in Pairs

BIG IDEA OF THE WEEK

20 Min
SLOW IT DOWN

Short clear lesson, using board, with practice.

DAILY MATHS CLASS WORK

50 Min
SLOW IT DOWN

Daily Maths Lesson.
NECT / DBE



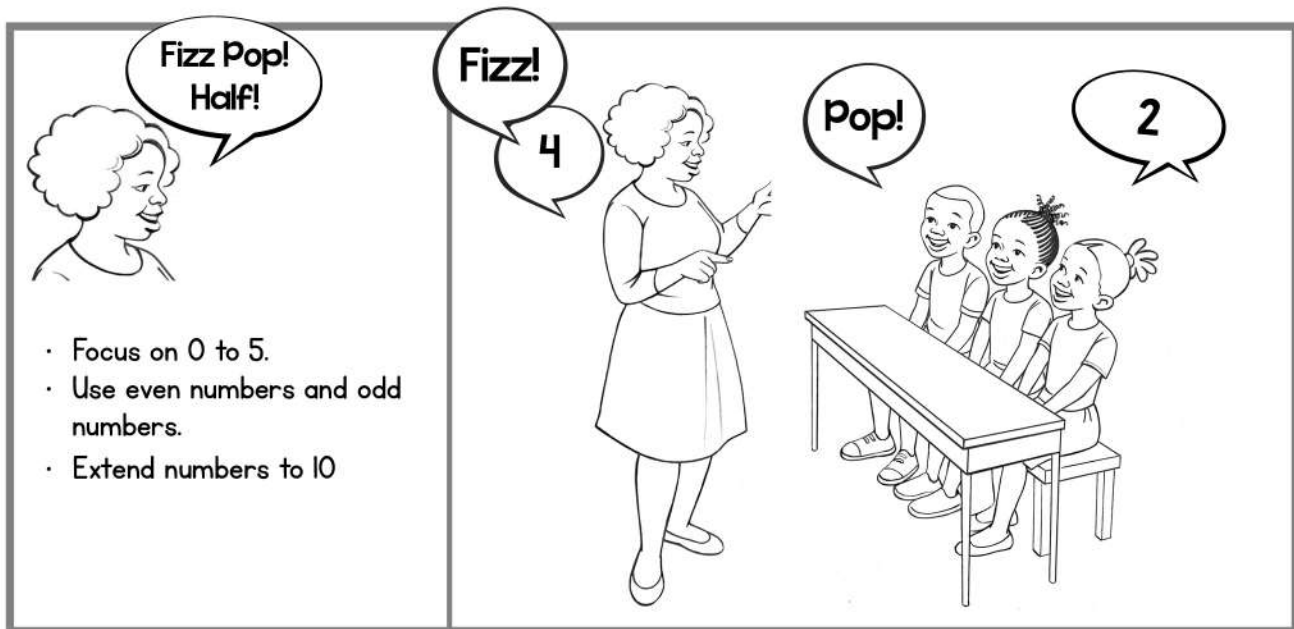
LESSON STARTERS

Week 7: Mental Maths

Fizz Pop

Half!

When we share equally between two children, each child receives half. Let's share marbles between 2 children. How many marbles does each child receive? How many are left over? Fizz Pop Half!



Counting

Backwards in 2s

Count backwards in 2s. Start and end with any number between 0 and 100. Start with both even and odd numbers.

Example:

- Count backwards in 2s from 20 to 0.
- Count backwards in 2s from 60 to 40.
- Count backwards in 2s from 31 to 11.



Week 7: Mental Maths

Games in Pairs



**Fast Cards:
2 Less**

- Play in pairs.
- Use cards 0 to 10.
- One child flips a card.
- The other child says the number that is two less.
- Try again! Faster! Play again!

LESSON STARTERS

Week 7: Big Idea of the Week

Big Idea of the Week

Subtraction is Take Away AND Difference!

When we subtract, we find the difference between two numbers. We have already learned one way to subtract. We put the first number in our heads and count backwards. We take away.

When we count BACKWARDS, we think about TAKING AWAY.

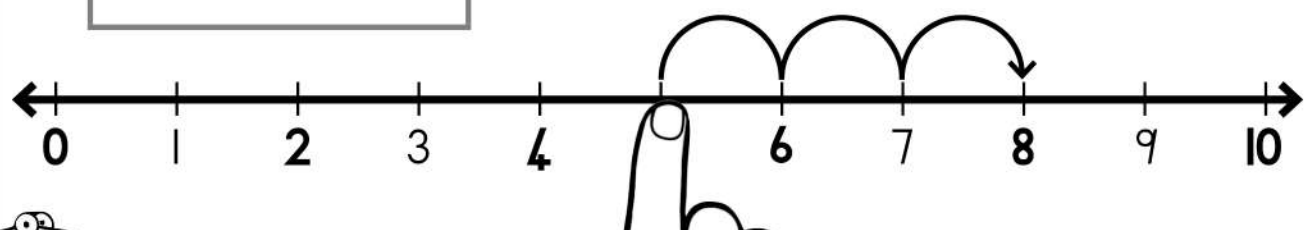


Another way to SUBTRACT is to count forward from the smaller number to the target. In this week, we help children to subtract by counting on from the smaller number.

In this method of subtraction, we start with the number that is subtracted. We count on to the first number. This strategy helps children count forward to solve subtraction problems.

Step 1: Subtract by COUNTING FORWARD on a number line

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





- I start at the 5!
- I hop forward to the 8.
- I count the 3 hops!

 $8 - 5 = 3$

Practice subtracting by counting forward on the number line. Ask children to solve by hopping their finger on the number line.

$10 - 8 = \underline{\quad}$	$6 - 4 = \underline{\quad}$	$8 - 5 = \underline{\quad}$	$9 - 6 = \underline{\quad}$	$7 - 4 = \underline{\quad}$
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LESSON STARTERS

Week 7: Big Idea of the Week

Step 2:

Subtract by COUNTING FORWARD using your fingers!

Zibalo explains her method!

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



- I put the number that I am subtracting in my head!
- I put 5 in my head!
- I tap my head to lock it in.
- I count FORWARD to the big number.
- I count forward to 8.
- I count on from 5. I count 3 times.

 $8 - 5 = 3$



Practice subtracting by counting forward to calculate the difference using our fingers. Write five problems on the board. Put the smaller number in your head. Count forward to reach your target. How many counts?

$11 - 8 = \underline{\quad}$	$12 - 10 = \underline{\quad}$	$9 - 7 = \underline{\quad}$	$10 - 6 = \underline{\quad}$	$10 - 7 = \underline{\quad}$
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Week 7: Big Idea of the Week

Step 3: Do you remember that addition and subtraction are cousins? Can you remember the Addition Subtraction Jive? Explore the relationship between the following two problems:

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

Can you see how we can COUNT FORWARD to solve a subtraction problem? When numbers are closer together, Zibalo finds it easier to calculate the difference, by counting forward. Practice the following problem pairs. What method do you find is the best to solve each problem pair?

$10 - 8 = \underline{\quad}$	$6 - 4 = \underline{\quad}$	$10 - 7 = \underline{\quad}$	$9 - 6 = \underline{\quad}$	$11 - 8 = \underline{\quad}$
$8 + \underline{\quad} = 10$	$4 + \underline{\quad} = 6$	$7 + \underline{\quad} = 10$	$6 + \underline{\quad} = 9$	$8 + \underline{\quad} = 11$

WORK OF THE WEEK

Each day, discuss one COMPARE word problem. Provide pictures to show that we can count forward from the smaller number to the bigger number to calculate the DIFFERENCE. We share some examples on the following page.

Each day, write five subtraction problems on the board. Ask learners to calculate the DIFFERENCE by counting forward from the smaller number to the target. Use numbers that are close together. We share some suggestions:

$8 - 6 = \underline{\quad}$	$11 - 8 = \underline{\quad}$	$10 - 6 = \underline{\quad}$	$15 - 13 = \underline{\quad}$
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LESSON STARTERS

Week 7: Big Idea of the Week

How many keys are missing? What is the DIFFERENCE?



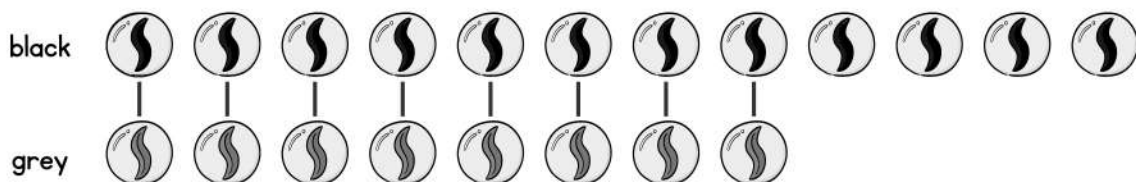
I have 8 locks and 5 keys. How many fewer keys than locks?



Zola scored 12 goals this season. Temba scored 9. Who scored more? How many more?



Zanele had 8 grey marbles and 12 black marbles. How had more marbles? How many more?



LESSON STARTERS

Week 7: Big Idea of the Week

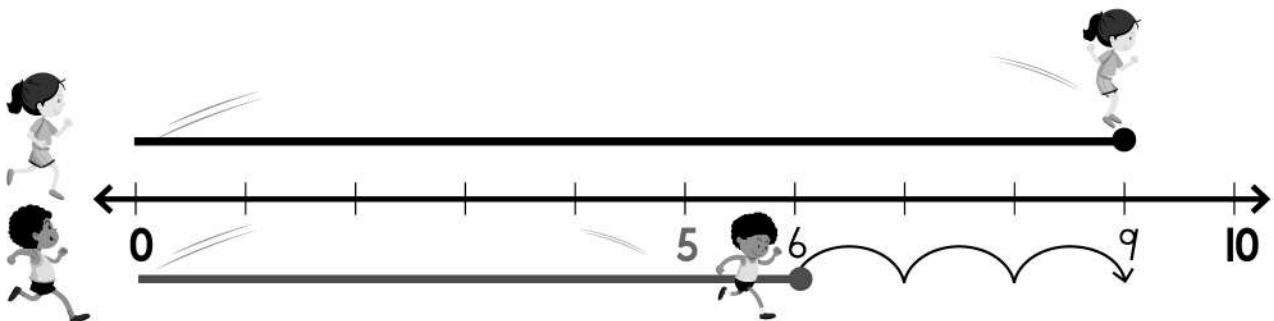


Ava and Olu draw a number line on the ground. Olu marks the beginning, and writes 0. Ava takes 10 equal steps. Olu marks the 5 and the 10.

Olu and Ava practice jumping. They run to the start of the number line. When they get to the start at 0, they jump as far as they can. Calculate the difference of the length of their jumps.

Ava jumps to the 9. Olu jumps to the 6. Who jumps longer? Who jumps shorter? What is the DIFFERENCE?

I can count BACKWARDS from the bigger number to the smaller number.



AND I can count FORWARDS from the smaller number to the bigger number.

Who jumped longer? Ava

Who jumped shorter? Olu

What is the difference:

$$9 - 6 = 3 \text{ steps}$$

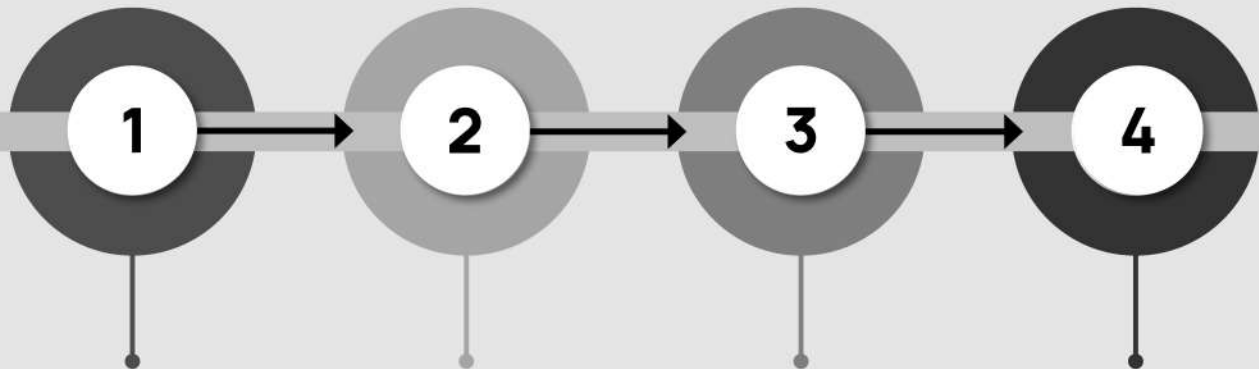


Don't forget to do the Timed Tango on Friday!

LESSON STARTERS

Week 7: Big Idea of the Week

MATHS LESSON STRATEGY



SETTLE QUICKLY

5 Min
SPEED

*Settle quickly
into quiet
work.*

MENTAL MATHS

15 Min
SPEED

Fizz Pop

Strategic
Counting

Game in
Pairs

BIG IDEA OF THE WEEK

20 Min
SLOW IT
DOWN

*Short clear lesson,
using board,
with practice.*

DAILY MATHS CLASS WORK

50 Min
SLOW IT
DOWN

*Daily Maths
Lesson.*

NECT / DBE



Week 8: Mental Maths

Fizz Pop

10 More!

- Start with numbers 1 to 20.



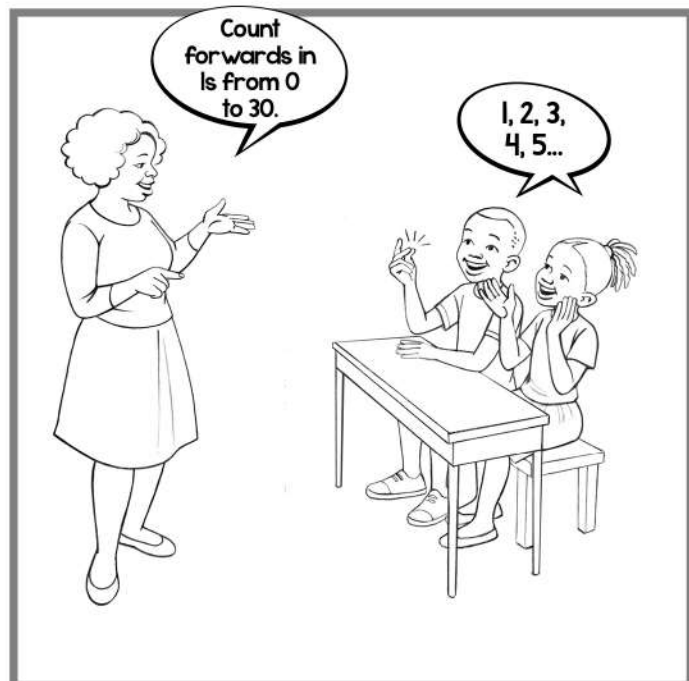
Counting

Forwards and backwards to 30

Count forwards and backwards in ones to 30. Clap on the 10s.

Example:

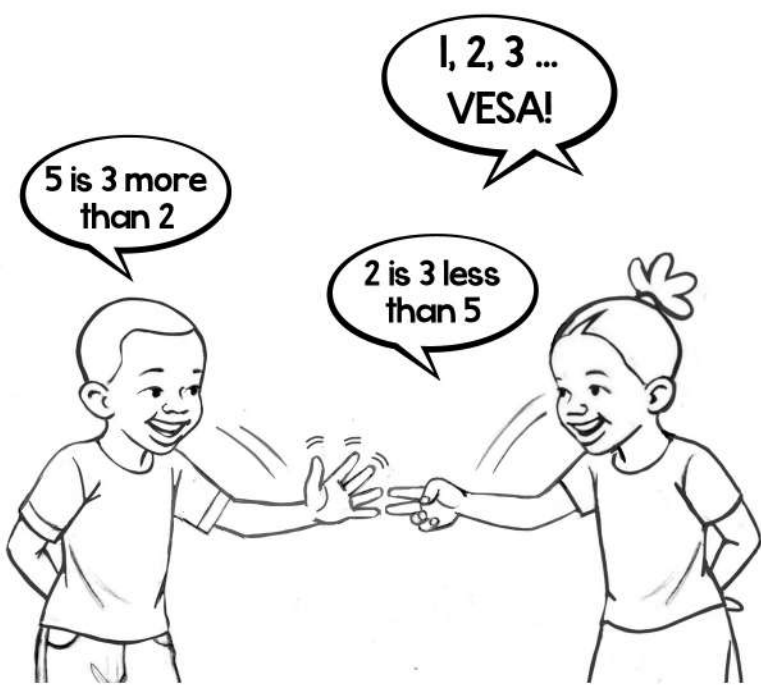
- Count forwards in 1s from 0 to 30.
- Count backwards from 30 to 0.



LESSON STARTERS

Week 8: Mental Maths

Games in Pairs



5 is 3 more than 2

1, 2, 3 ... VESA!

2 is 3 less than 5

123 VESA: COMPARE

- Play in pairs. Put hands behind back.
- Say together, "123 Vesa!"
- Both children show fingers on one hand.
- Calculate the difference.
- Say out loud. "5 is 3 more than 2" "2 is 3 less than 5".
- If the numbers are equal, do the SAME SAME dance.



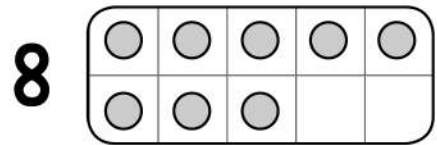
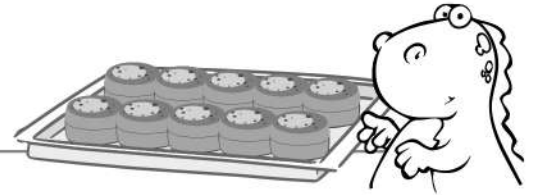
LESSON STARTERS

Week 8: Big Idea of the Week

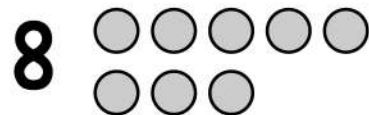
Big Idea of the Week

Drawing Numbers: 10 Frame

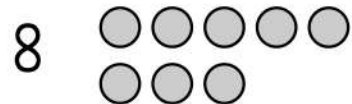
In this lesson, Zibalo teaches learners a cool way to draw numbers from 0 to 10. She uses her drawing to write two number sentences. Work through the number 8 with learners on the board.



Zibalo loves to bake. She bakes scones to sell. She ALWAYS bakes scones in rows of 5. She never places more than 10 scones on one baking tray.



STEP 1: Draw the number.



STEP 2: Think about 5

- The drawing helps Zibalo think about how the number relates to 5.
- Write a number sentence using the number 5.

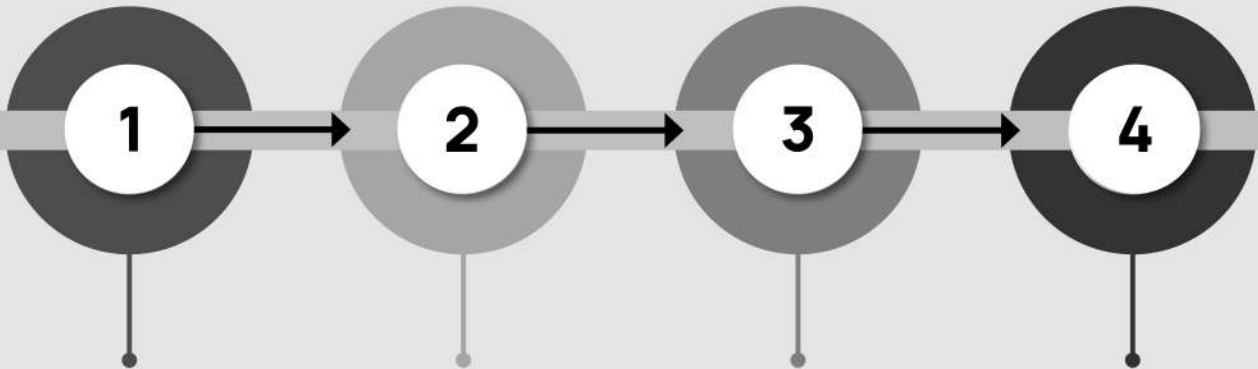
$$8 = 5 + \underline{3}$$

Write 7 scones, 5 scones and 9 scones on the board. For each number, ask learners to:

- Draw the number
- Write a number sentence using the number 5;



MATHS LESSON STRATEGY



SETTLE QUICKLY

**5 Min
SPEED**

Settle quickly into quiet work.

MENTAL MATHS

**15 Min
SPEED**

Fizz Pop
Strategic Counting
Game in Pairs

BIG IDEA OF THE WEEK

**20 Min
SLOW IT
DOWN**

Short clear lesson, using board, with practice.

DAILY MATHS CLASS WORK

**50 Min
SLOW IT
DOWN**

Daily Maths Lesson.
NECT / DBE



Dont forget to do the Timed Tango on Friday!



Week 9: Mental Maths

Fizz Pop

10 LESS!

- Call a number between 10 and 20. Children subtract 10.



Counting

Forwards and Backwards on the 10s

We can count forwards and backwards in ones from 0 to 10. Therefore we can count forwards and backwards in 10s from 0 to 100!

Example:

- Count forward in 10s from 0 to 100.
10, 20, 30...100!
- Count backwards in 10s from 100.
100, 90, 80

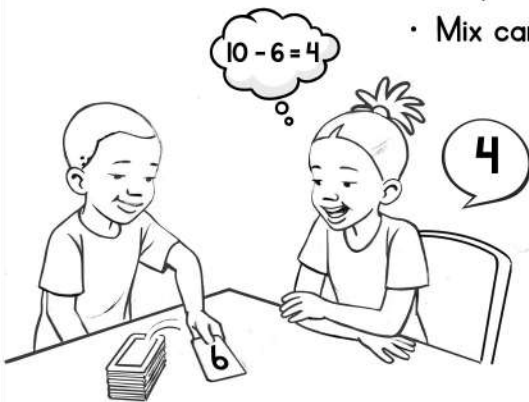


Week 9: Mental Maths

Games in Pairs

Bonds of 10

- Play in pairs with one pile of cards.
- Mix cards from 0 to 10.



Subtract

- Flip a card.
- Subtract the number from 10.



How many more to reach 10?

- Flip a card.
- How many more to reach 10?

LESSON STARTERS

Week 9: Big Idea of the Week

Big Idea of the Week

Zibalo LOVES to HOP to 10!

In this week we ask children to think about hopping to the 10! Zibalo enjoys all numbers. But she LOVES the number 10! She imagines 10 as a cosy home to rest and chill.

When she hops on a number line, she always asks herself, "How many hops to the 10?"

Draw a number line on the board. Call a number between 0 and 10. Work with learners to answer, "how many hops to the 10?" Support learners to hop with their finger on the number lines taped to their desks.



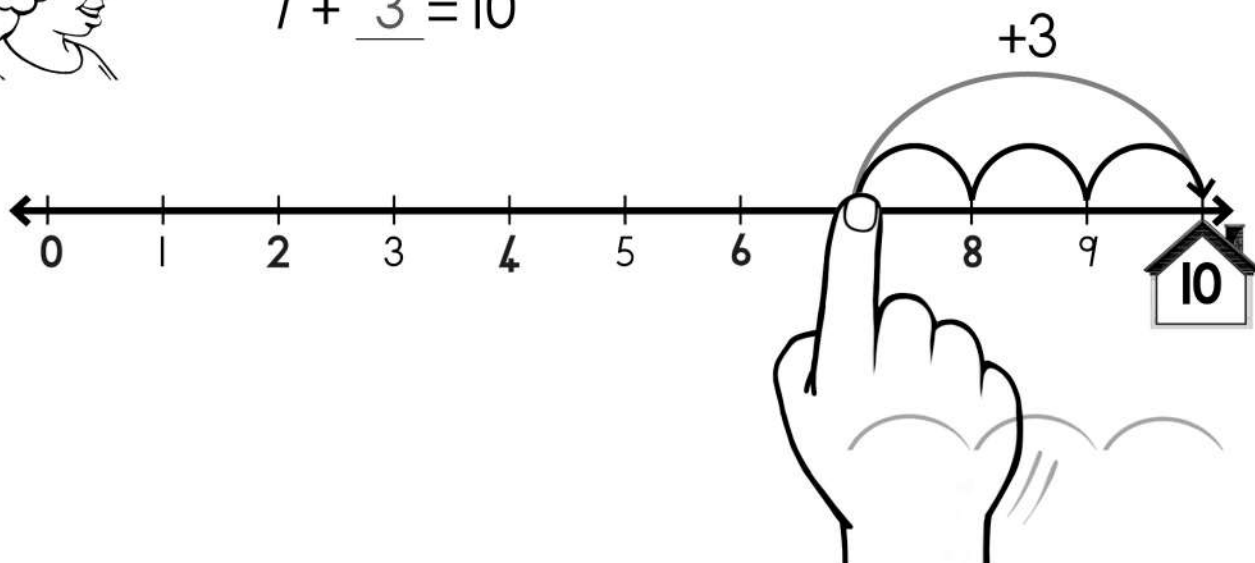
Have you taped number lines onto learner's desks?
Ask them to hop using their finger on the number line.



7

Call 7! How many hops to 10?

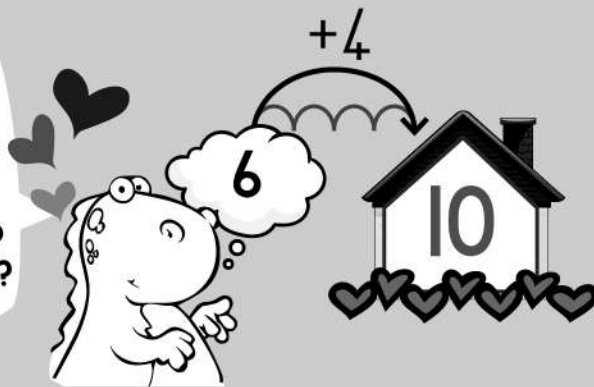
$$7 + \underline{3} = 10$$



LESSON STARTERS

Week 9: Big Idea of the Week

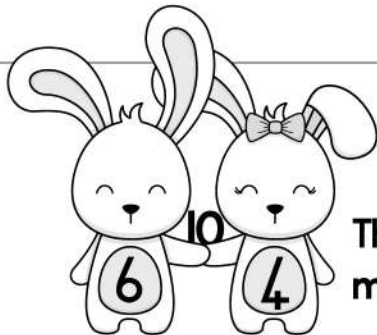
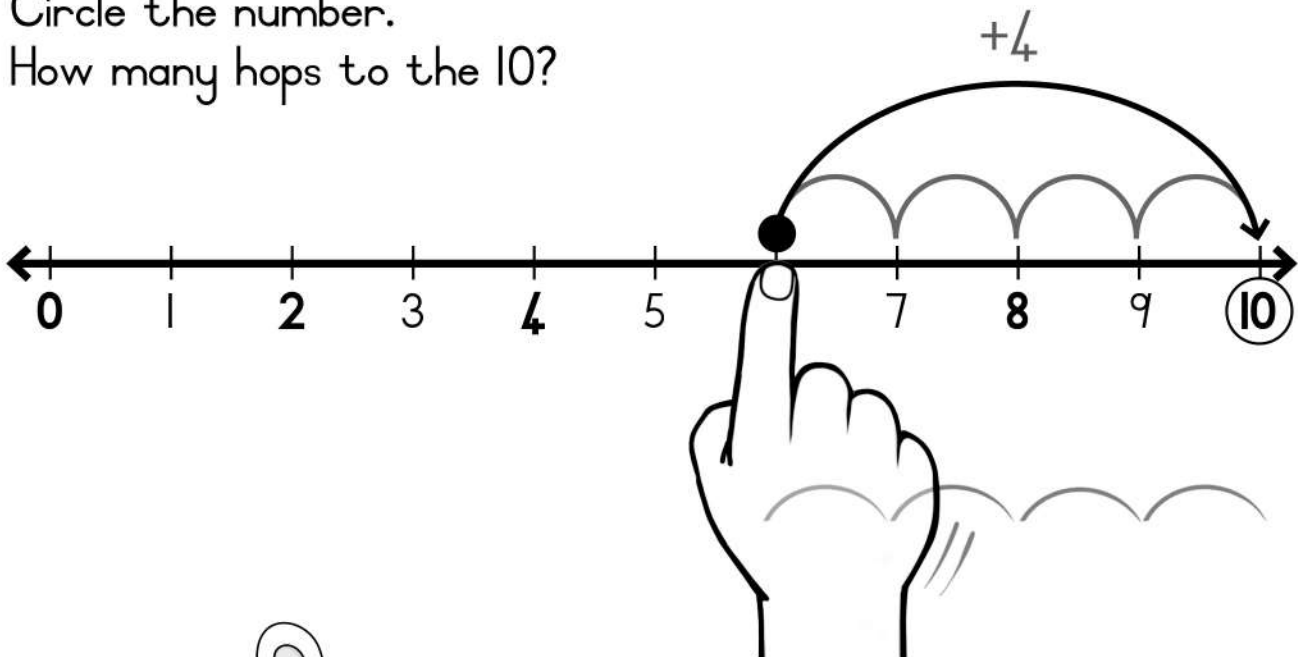
I tap 6 into
my head.
What is the
next 10?
How far to
the next 10?



Zibalo LOVES 10!
When she adds she
asks two questions.
What is the next 10?
How far to the next 10?

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

Circle the number.
How many hops to the 10?



The two numbers that come together to
make 10 are **BEST FRIENDS FOREVER**.

Don't forget to do the Timed Tango on Friday!



LESSON STARTERS

Week 10: Mental Maths

Fizz Pop

Add Ten, Subtract 1

Call a number between 0 and 10. Children add 10 and subtract 1.

- Cool! Can you see!
When we add 10 and subtract 1 we are adding 9!



Counting

Counting forwards in 5s from 0 to 30!

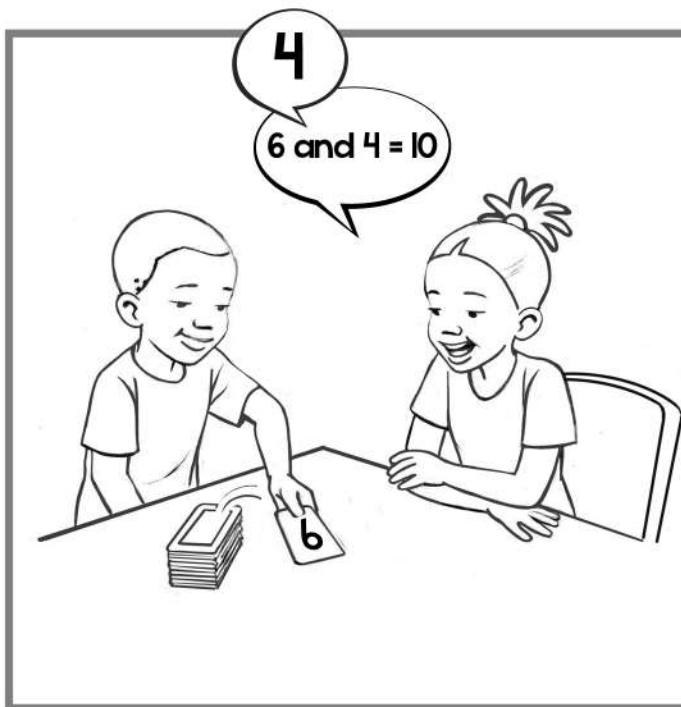
Count forwards in 5s from 0 to 30. Ask children to follow on their number charts.

- It is important for children to begin to HEAR the patterns as they count in 5s to 30.



Week 10: Mental Maths

Games in Pairs



Fast Cards:
How many to 10?

- Play in pairs.
- Use one pile with number cards from 0 to 10.
- First learner picks a card.
- Second learner calculates how many more to reach 10.

LESSON STARTERS

Week 10: Big Idea of the Week

Big Idea of the Week

Double!

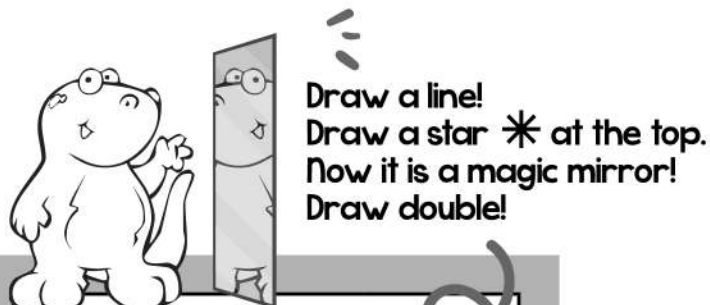
In this lesson we make sure that learners understand how to double. We make sure they can double any number between 0 and 10. We use the idea of a "magic mirror."

Double

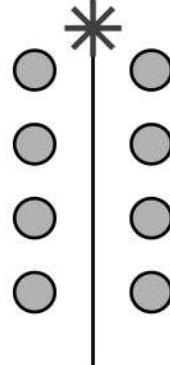
- Draw a line as a magic mirror.
- Your teacher will call a number (0 to 10)
- Draw the number on the left of the mirror
- Draw the number on the right of the mirror.



Doubling a number is about repeating a number 2 times!



Double 4



Double 4 is 8

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

There are two 4s in 8.



LESSON STARTERS

Week 10: Big Idea of the Week

Write 3-4 numbers to double on the board. Start with simple numbers and then get more complex. All learners should know how to double numbers between 0 and 10. If some struggle, practice by playing Fizz Pop Double!

When children double 10s, help them use their knowledge of doubling ones. For example, I know that double 2 is 4, therefore I know that double 20 is 40.

Level 1	Level 2	Level 3
Numbers: 0 to 10	Numbers: 10 to 20	Numbers: Tens
Double 3 _____	Double 13 _____	Double 20 _____
Double 5 _____	Double 16 _____	Double 40 _____
Double 2 _____	Double 12 _____	Double 50 _____



Don't forget to do the Timed Tango on Friday!



Week 11: Mental Maths

Fizz Pop

Double!

- Start with numbers 0 to 10.
Can you go to 20?



Counting

Count to calculate how many 2s!

Count to calculate how many 2s. Call a number between 5 and 10. (When you are ready, extend to 20!).

Ask, how many 2s? Are there any left over?

- Example: 9 - Count in 2s.**
Keep track of the 2s using your fingers.
2, 4, 6, 8. There are 4 twos in 9 and one left over!

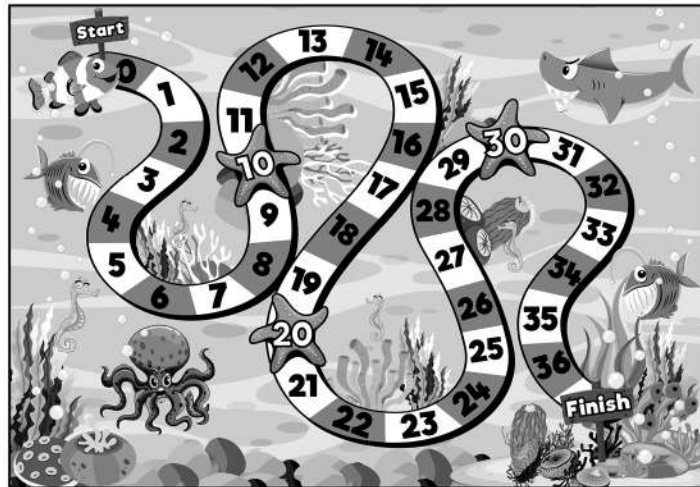


Week 11: Mental Maths

Games in Pairs

UNDER THE SEA DASH

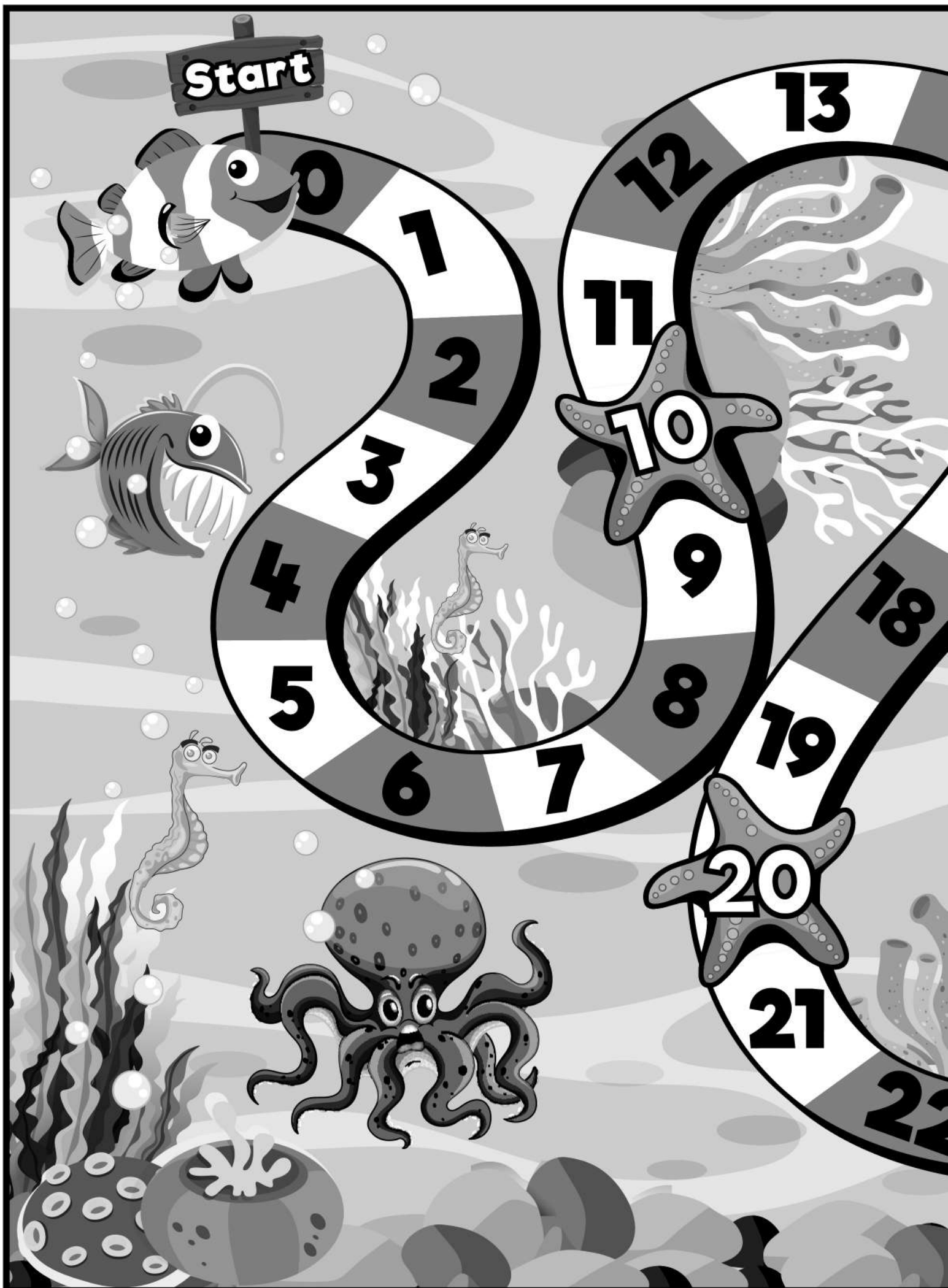
See page 52 - 53 for full size board game.



- Play with 2 to 4 players.
- Each player has a cube or counter.
- Use dice or number cards.
- Roll to go first. The player that rolls the highest goes first.
- Players take turns rolling the dice (or picking a card).

Jump forward the number.

- When you jump to a    you can roll again!
- The first person to reach the FINISH wins!





LESSON STARTERS

Week 11: Big Idea of the Week

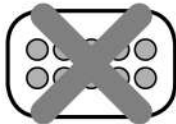
Big Idea of the Week

Draw numbers from 10 to 20

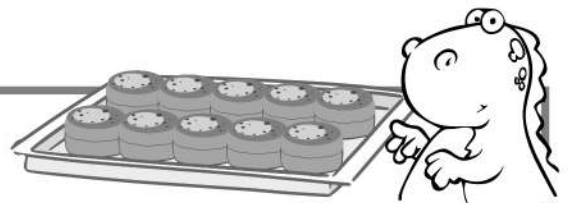
In this lesson we will help children to draw number pictures from 10 to 20. The big idea is that from now on, WE DO NOT WANT our learners to draw ten showing the ten ones . We want them to draw the ten as a 10! 



Let's put on our 10 glasses!
When we wear our 10 glasses, we think in 10s!



Zibalo decides to start a scone business. She starts to bake more scones. Her friend Infinity suggests that she writes down how many scones she bakes every day. Zibalo likes to draw the numbers.

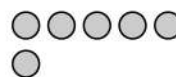
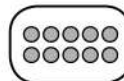


Today she baked 16 scones.

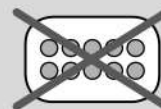


She drew 16:

16

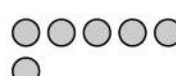


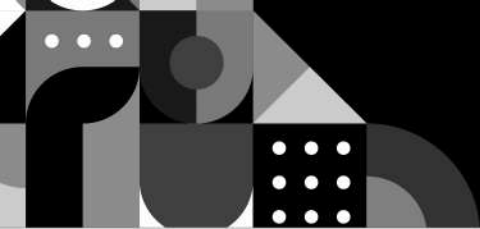
Infinity explains to Zibalo that she does not have to draw every scone. She can record ten scones like this:



Zibalo likes this suggestion. She draws 16 like this:

16





Week 11: Big Idea of the Week

Work through Zibalo’s new way of drawing numbers. When she draws numbers over 10, she does not spend the time to draw each and every one. We draw a ten like this: . We are thinking in 10s!

Each day this week, write numbers from 10 to 20 on the board. Ask learners to draw using the  as a ten. Then ask them to write a number sentence using the number 10.

STEP 1: Draw the number like Infinity	16  
STEP 2: Think about 10 The drawing helps Zibalo think about how the number relates to 10. She writes a number sentence.	$16 = 10 + \underline{6}$

Write 3 numbers between 10 and 20 on the board. For each number, ask learners to:

- Draw the number.
- Write a number sentence using the number 10;





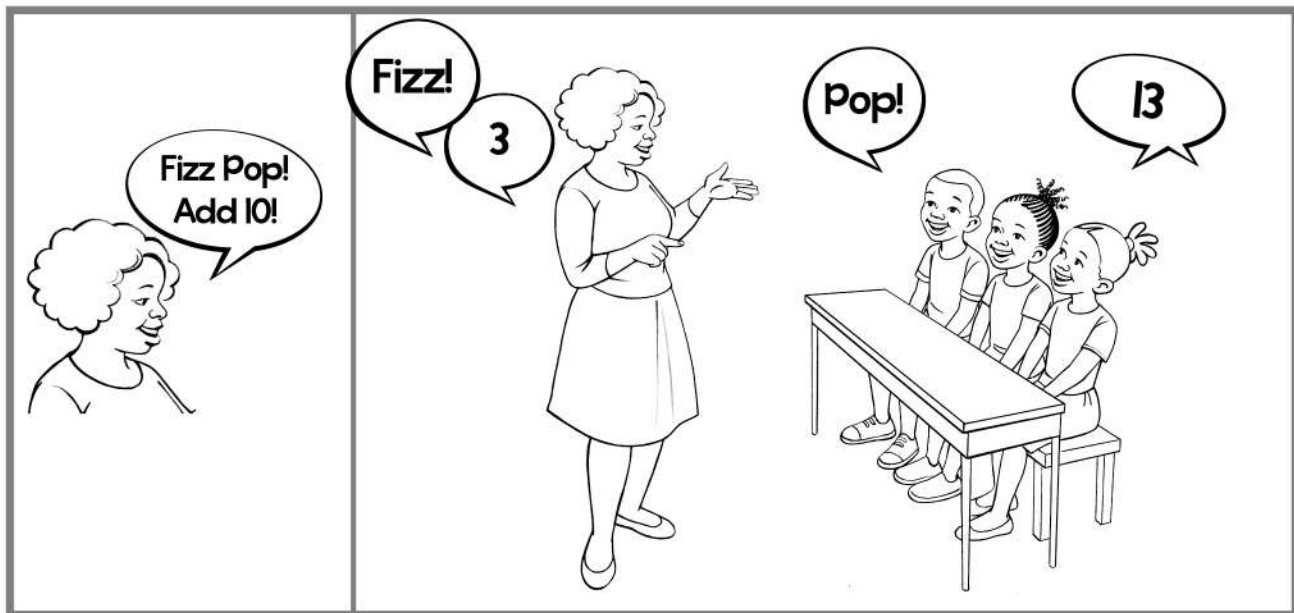
Dont forget to do the Timed Tango on Friday!

Week 12: Mental Maths

Fizz Pop

Add 10!

- Start with numbers 0 to 10.



Counting

Counting forwards in 10s!

Count forwards in 10s from any number between 0 and 10. Help children to follow the counting using the number chart on the back cover!

- It is important for children to begin to HEAR the patterns as they count in 10s to 100.



LESSON STARTERS

Week 12: Mental Maths

Games in Pairs

Review and practice the games you have played over the past 11 weeks!

Practice the Addition and Subtraction Jive. See Week 6!

8

QUICK SHOW!

0 - 10!

- I will call a number between 0 and 10.
- You show me the number

LET'S PLAY: The Addition - Subtraction Jive!

Make a 5-train.

I break 5 into 2 and 3.

5 take away 2 is 3.
 $5 - 2 = 3$

Put one piece in each of your hands.

$5 = 3 + 2$

Put the 2 behind your back.

$3 + 2 = 5$

Bonds

- Play in pairs with
- Mix cards from

$10 - 6 = 4$

4

Subtract

- Flip a card.
- Subtract the number from 10.

Bring the 2 back again.

2 add 3 is 5.
 $2 + 3 = 5$

Break again!

Bring the 3 back again.

$5 - 3 = 2$

Put the parts together.

$3 + 2 = 5$

Week 12: Big Idea of the Week

Big Idea of the Week Number Charts and Adding 10

In this lesson we expose children to the Number Chart from 1 to 100. We want them to get a sense for the way numbers are organised by 10.

Each child should have a number chart, either taped onto their desk, or on a photocopied sheet. It is best to have both! (see page 113)

Across this week, examine the number chart carefully together. Here are some suggestions:

- How many ROWS are on this chart?
- How many COLUMNS are on this chart?
- Find 1. Count to 10. Count to 20. Count to 30. Ask children to look carefully about how we count forward from 10 to 11, from 20 to 21, and from 30 to 31. When we count forwards, we move from left to right. When we reach the 10, we go back to the beginning of the next row!
- Start at any number from 1 to 10. Count forward 10. What do you see? Count forward 10 more. What do you see?
- Ask children to study their number charts. Choose any number from 1 to 10. Count forward 10. What do they see?

This chart is organised by 10s. So anytime we count 10 forward (or add 10) we go up one row. Can you see? Count from 10 to 100 in 10s. Ask children to use the number chart as they count. Can children add 10 to the tens column?
 $40 + 10 = \underline{\quad}$

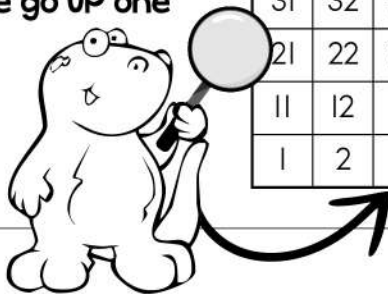
Do learners have number charts pasted on their desks? You may also want to print the A4 number chart for each child to use during this week.



LESSON STARTERS

Week 12: Big Idea of the Week

When we add 10 numbers get bigger. We move one row up on this number chart. Can you see that the units stay the same. The tens increase by one ten. What happens when we go UP one column?



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



Can you see when I move up one row, I add 10!

Each day, give children problems to add 10 to any number between 0 and 20. You may want to choose problems show different patterns. We share some examples in the table.

Numbers 1 to 10	Numbers 11 to 20	Numbers 21 to 30
$3 + 10 = \underline{\quad}$	$11 + 10 = \underline{\quad}$	$22 + 10 = \underline{\quad}$
$5 + 10 = \underline{\quad}$	$15 + 10 = \underline{\quad}$	$25 + 10 = \underline{\quad}$
$8 + 10 = \underline{\quad}$	$19 + 10 = \underline{\quad}$	$17 + 10 = \underline{\quad}$

Patterns of 10	Mixed	On the 10
$4 + 10 = \underline{\quad}$	$15 + 10 = \underline{\quad}$	$10 + 10 = \underline{\quad}$
$14 + 10 = \underline{\quad}$	$21 + 10 = \underline{\quad}$	$20 + 10 = \underline{\quad}$
$24 + 10 = \underline{\quad}$	$9 + 10 = \underline{\quad}$	$30 + 10 = \underline{\quad}$



LESSON STARTERS

Week 12: Big Idea of the Week

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

WEEK 12

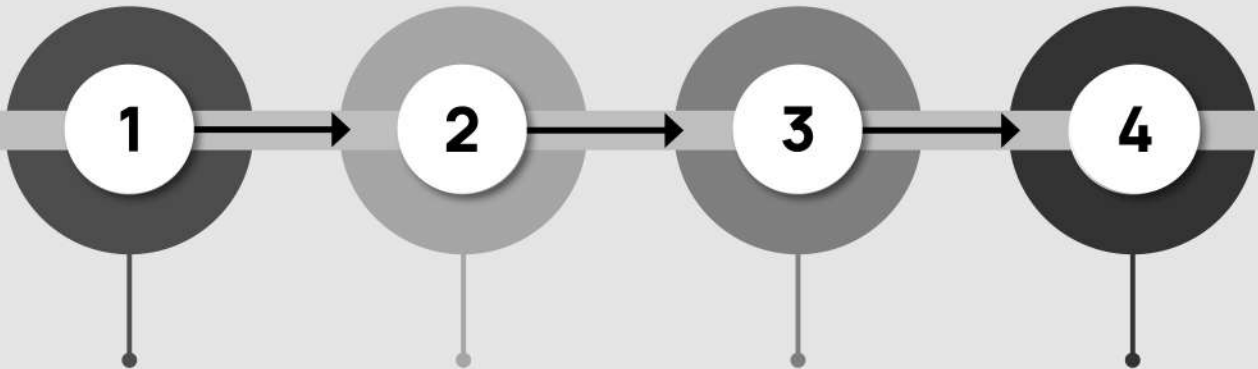


Dont forget to do the Timed Tango on Friday!



Week 12: Big Idea of the Week

MATHS LESSON STRATEGY



**SETTLE
QUICKLY**

**5 Min
SPEED**

*Settle quickly
into quiet
work.*

**MENTAL
MATHS**

**15 Min
SPEED**

Fizz Pop
Strategic
Counting
Game in
Pairs

**BIG IDEA OF
THE WEEK**

**20 Min
SLOW IT
DOWN**

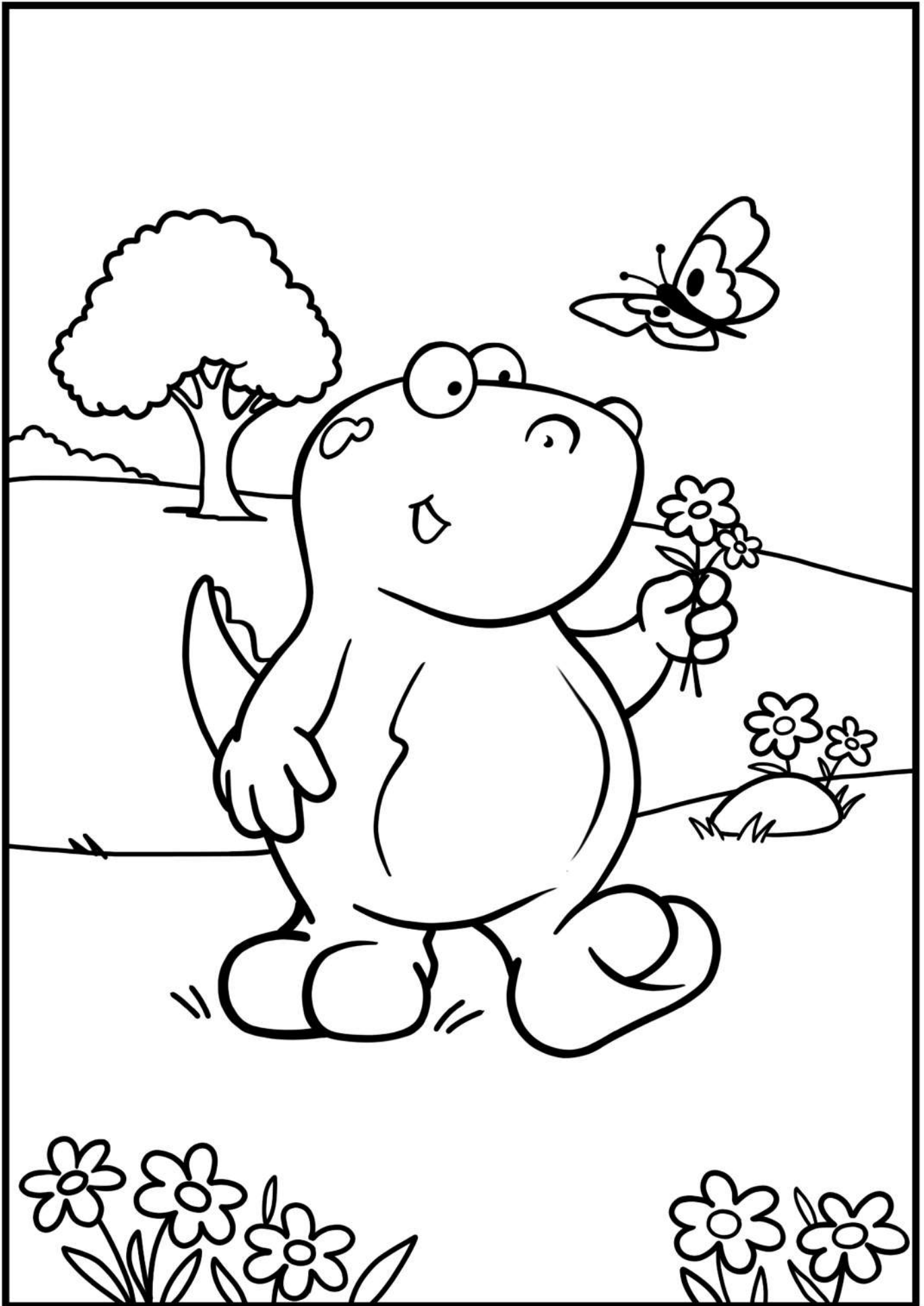
*Short clear lesson,
using board,
with practice.*

**DAILY MATHS
CLASS WORK**

**50 Min
SLOW IT
DOWN**

*Daily Maths
Lesson.*
NECT / DBE





TEACHER MANUAL

How do I use
LESSON STARTERS
in my classroom?



1. Introduction to Lesson Starters

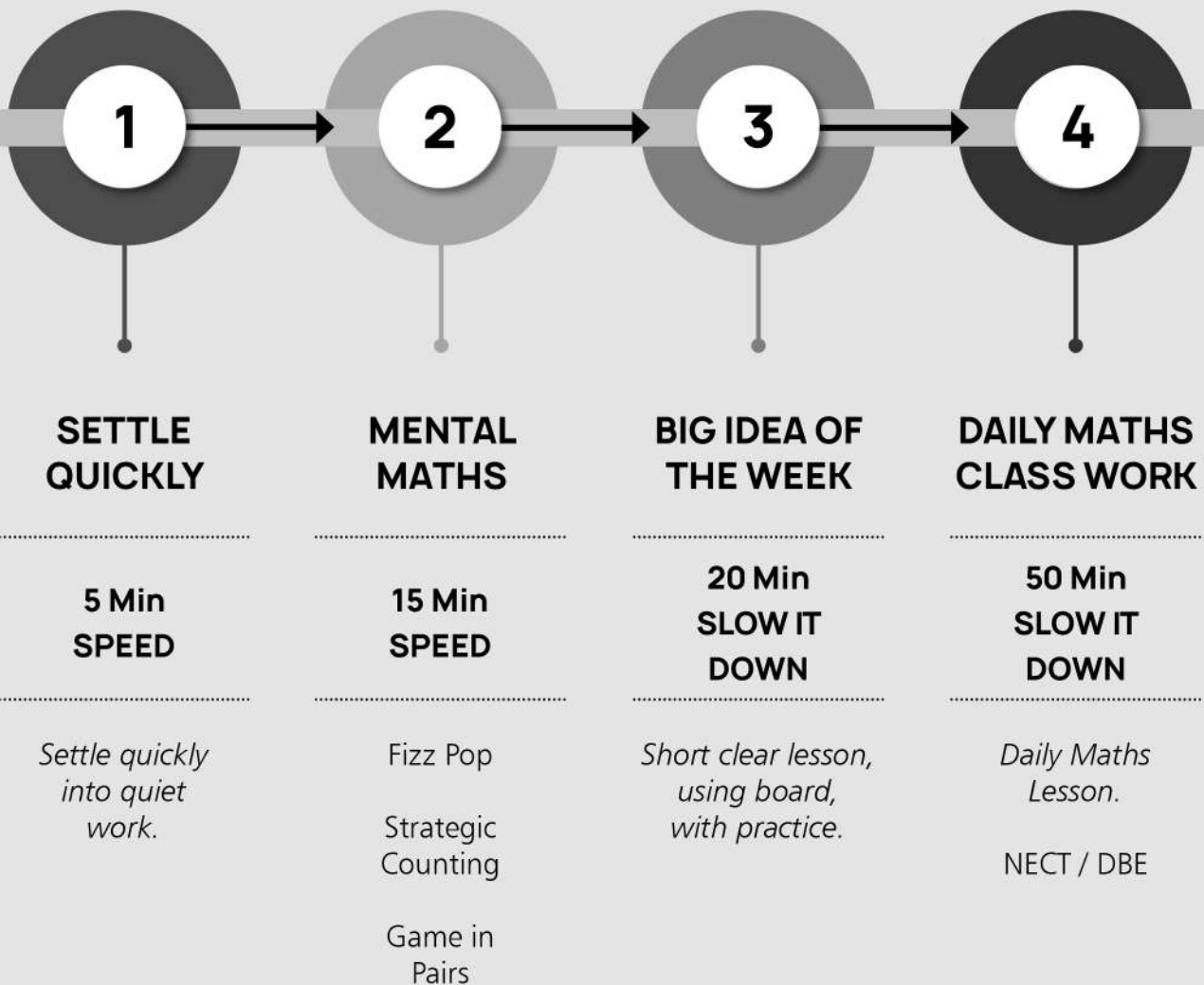
What is a Lesson Starter? What are we trying to achieve with Grade 1 Lesson Starters? How do you manage to fit “Lesson Starters” into your maths lesson every day? This document is designed to answer these questions and share some of our ideas about how to organise maths lessons.

2. What is Our Lesson Strategy?

In the MCC, we have adopted the following simple daily lesson plan to organise our 90 minutes maths lessons each day. In the past, we did not always organise a tight 90-minute lesson. Over time we have found that it helps our learners for us to develop a consistent daily routine, at the same time each day. When our learners get used to our routine, activities, and games our classrooms have become easier. We can get more done with less stress. We hope you will try it out and adapt it to your needs.

LESSON STARTERS

Maths Lesson Strategy: Monday to Thursday





As you can see, we think about our lesson as FOUR STEPS:

- **Step 1 - Settling Quickly:**

The first step is to settle our learners into the maths lesson quickly after break. We do this by creating and maintaining a MAGIC DOOR and providing quick practice as learners enter the MAGIC DOOR.

- **Step 2 – Mental Maths:**

We begin the lesson with MENTAL MATHS. We undertake three activities every day for mental maths:

- 1) Fizz-Pop;
- 2) Strategic Counting; and
- 3) Games in Pairs.

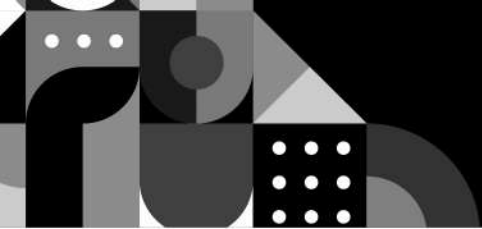
We explain these activities below. The Lesson Starters provide a detailed guide for these activities across the term.

- **Step 3 – Big Idea of the Week:**

After Mental Maths, we spend 20 minutes teaching the BIG IDEA OF THE WEEK. These are strategic lessons that assist learners to keep up with the fundamental goals of the curriculum. Repeat and reinforce this lesson across the week; learners practice in their counter books on problems you have written on the board.

- **Step 4 - Normal Maths Class Work:**

We then use 45 and 50 minutes to conduct our planned daily maths lesson, using the DBE Workbooks, NECT Lesson Plans and other available materials.



LESSON STARTERS

On Fridays, we shift things up a bit, by doing a Timed Tango and a mini assessment. We describe each of these activities below!

Monday	Tuesday	Wednesday	Thursday	Friday
MAGIC DOOR				
MENTAL MATHS: Fizz Pop, Strategic Counting, Games in Pairs				Timed Tango
BIG IDEA OF THE WEEK				Assess
DAILY MATHS LESSON				

Magic Door

1. Create and Maintain the Magic Door

1.1. Introduction to the Magic Door

The goal of the Magic Door is to help children to settle into the maths lesson quickly.

To create a “Magic Door” you must:

- **Explain** the Magic Door (and its rules) clearly.
- **Organise** work for children to begin right away, without waiting for you or other children to settle.
- **Consistently** enforce the Magic Door rules.

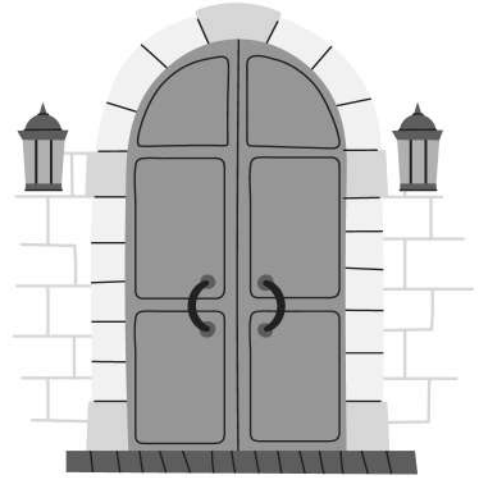
1.2. Explain the Magic Door

“Can you see the door of this classroom? Does it look to you like a normal boring door? Well, not after today...”

From today forward, we will create this door as a MAGIC DOOR. It will help us make our classroom more peaceful and we will learn more when we are together.

One of the things we know about learning is that we only learn nicely when we feel safe and calm. My job as the pilot of this classroom is to make sure we have a calm environment so that we can focus on interesting things.

Outside of this door we all have lives. Some of our lives are quite stressful. Sometimes families are stressful. Sometimes friends are stressful.



Magic Door

However, when we walk into this classroom, for now on, all of us, including myself will leave our stress outside the door. We will create this classroom as safe, calm and peaceful.

Our bodies have a lot of energy. When we are outside the door, we must let our energy out! Outside this door we must play, run around, move our bodies, make noise, play soccer, play other games, run races and chat with each other.

By the time we walk through the door of the classroom, our bodies and minds are ready to learn!"

1.3 How Do We Create a Magic Door?

From this day forward, every time we come through this door, we will remember to make it magical.

- We will only come through the MAGIC DOOR into the classroom one at a time.
- As we walk through the door, we will quieten our bodies and our minds, and we will leave our problems and stresses outside.
- We will take a deep breath, and feel the calm of this room.
- Without talking, we will go straight to our desks and begin the work that is waiting for us.
- When I see anyone talking as they entre this special place, I will ask you to go out again and practice coming through the Magic Door again.
- If there is a lot of noise, we may ALL go out and come in again!
- When I am stressed, I will go out and come in again! ☺



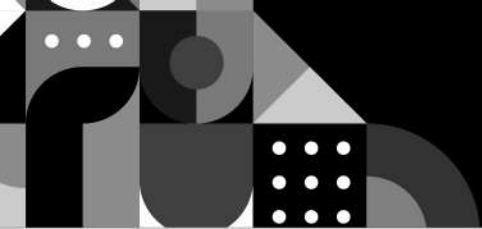
Magic Door

1.4. Organise Work

In order to make the maths lesson start quickly and quietly, we have work organized for learners before they enter the classroom.

Before leaving the previous day, we write 5 maths problems on the board. Children know that when they come into the classroom, they get their counter books, and start this work. Some of us write two sets of problems on the board – one more difficult than the other. All learners know what set they should work on.

You do NOT need to wait for all learners to complete this work. When you are settled and ready to teach, and children are in their desks, you will say “Fizz!” By putting time pressure, learners will make more progress the next day.



2. MENTAL MATHS

As soon as your learners are settled and you are ready to begin, we start mental maths. Every day we do THREE mental maths activities:

1. Fizz Pop
2. Strategic Counting
3. Games in Pairs

We describe each of these activities below.



LESSON STARTERS

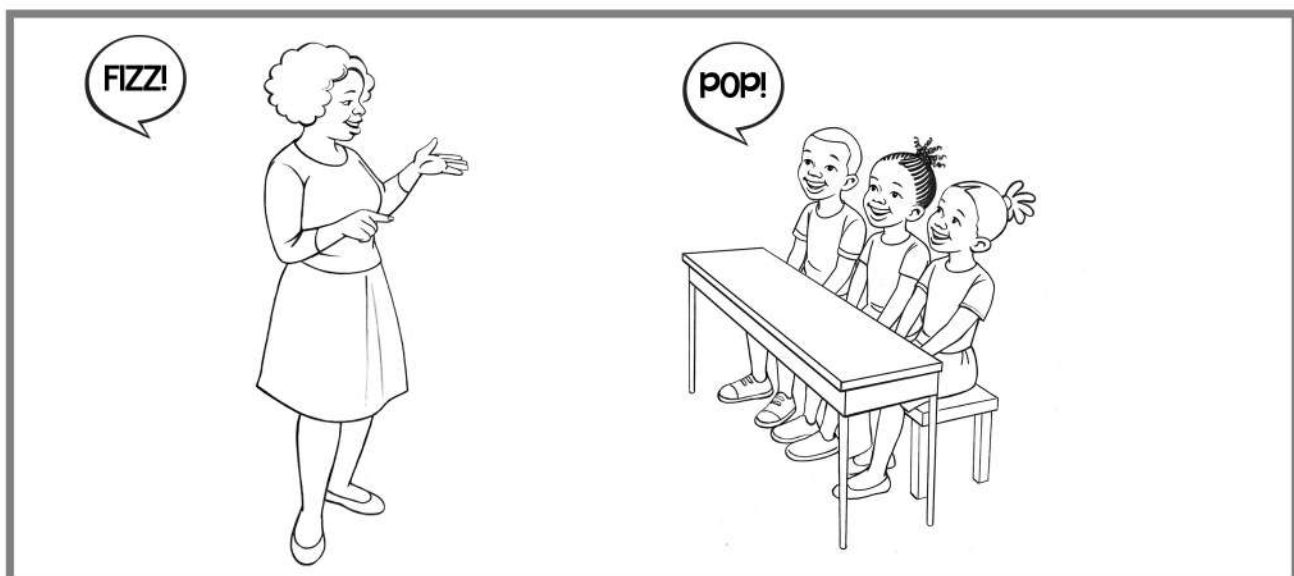
STEP 1: FIZZ POP

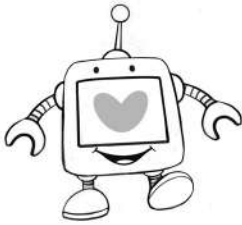
3.1. Introduction

Your learners have come through the Magic Door quietly and started work or board work. (If they are not working quietly, you will maintain the Magic Door by walking learners (some or all) out of the door and ask them to come in again, respecting the Magic Door. (Seriously, you will have to do this from time to time to maintain the Magic Door!)

Again, you should NOT wait for all learners to complete this work. When YOU are settled and ready to teach, and children are in their desks, you will say “Fizz!” We suggest that you do not even say, “good morning class!” (You can do this later.) Start with a bang – “FIZZ!”

Children will respond, “POP!” At first only a few children may respond. You call, “Fizz” until most children have put down their calendar work, and call back, “POP!”

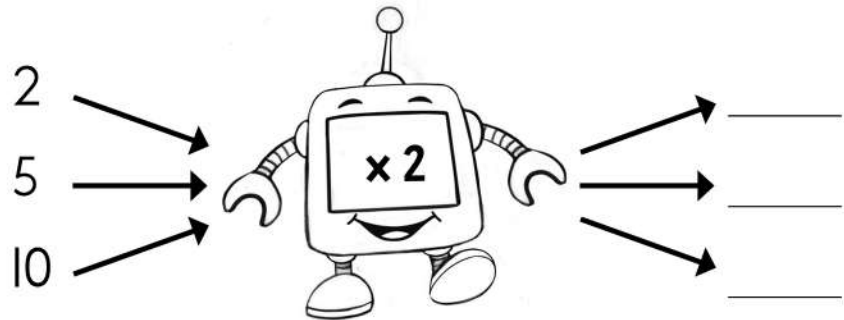




3.2. The KEY for Fizz Pop?

Fizz Pop is a FUNCTION game. A number is called. It is put into the function machine. And the number comes out transformed. (Old machines used to make sounds like fizz and pop!)

This function machine DOUBLES (phinda ka 2) numbers. When we put a 2 in the machine, it is transformed into 4 when it comes out! The number double (phinda ka 2).



The instructions for playing Fizz Pop are in Box 1. The most important part of the game is to clearly define the function! Check out Box 1 on page 75.

LESSON STARTERS

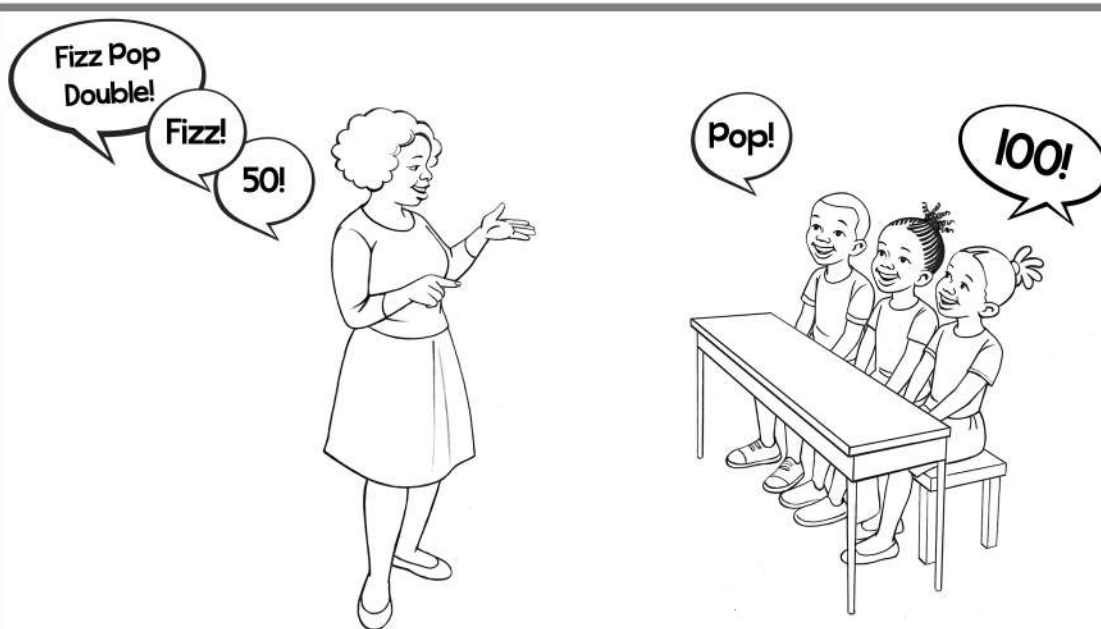
STEP 1: FIZZ POP

Function	Number Range
1 More and 1 Less	0 to 10. Build to 20. Can you extend to 50?
10 More and 10 Less	Play 10 MORE with any number between 0 and 10. Can you extend to 20? Play 10 LESS with any number between 10 and 20. Can you extend to 30?
Add or Subtract: 1, 2, 3, 4, 5...	Start with 0 to 10. Can you go to 20?
How far to the next 10?	Start with 0 to 10. Can you go to 20?
Double	Start with 0 to 10. Then 10s (10, 20, 30...) (If we know that double 2 is 4, then we know that double 20 is 40.) Then go to 0 to 20. Work to 100.
Half	Use numbers 0 to 10. Can you get to 20? First think about HALF of MARBLES. 7! Half of 7 is 3 and one left over! Then think about HALF of HOTDOGS. Use numbers 0 to 10. Can you get to 20? 7! Half of 7 hotdogs is 3 and one half hotdogs!
10 More and 10 Less	Play 10 MORE with any number between 0 and 10. Can you extend to 20? Play 10 LESS with any number between 10 and 20. Can you extend to 30?
Make up your own	

LESSON STARTERS

STEP 1

Box 1: Let's Play Fizz Pop!



Step 1

Get learners' **ATTENTION** quickly.

Start the game by calling, "Fizz!"
Learners respond, "Pop!"
Call, "Fizz! Fizz!"
Learners respond, "Pop! Pop!"

When you have most learners' attention...

Step 2

Clearly define the **FUNCTION**.
(The math you want children to do.)

Say, "Fizz Pop DOUBLE!"

(See below for other examples.)

Step 3

PLAY

Teacher: Fizz!
Learners: Pop!
Teacher: Fizz!
Fizz!
Learners: Pop!
Pop!
...
Teacher: 10
Children: 20!

Step 4

KEEP GOING!
(If children answer quickly, extend the number range. If children struggle, bring back the number range.)

Teacher: Fizz!
Learners: Pop!
Teacher: Fizz!
Fizz!
Learners: Pop!
Pop!
...
Teacher: 14
Children: 28!



STEP 2: Strategic Counting

4.1. Introduction

After a few minutes playing Fizz Pop, continue into Strategic Counting. Counting with learners is strategic when it:

- Makes children think about number structure and relationships;
- Does not take too much time; and
- Keeps all children engaged.

The top 3 math rules for strategic counting are:

- Give a number to **begin** and **end**.
- Give the **unit** (or group) you are counting in.
(For example, count in 1s, 2s, 5s or 10s.)
- Give the **direction** for counting.
(Count forward or count backwards.)

Good Example	Not So Good Example
Count backwards in 1s from 135 to 123 Count backwards in 10s from 163 to 43	Count from 150 to 100.

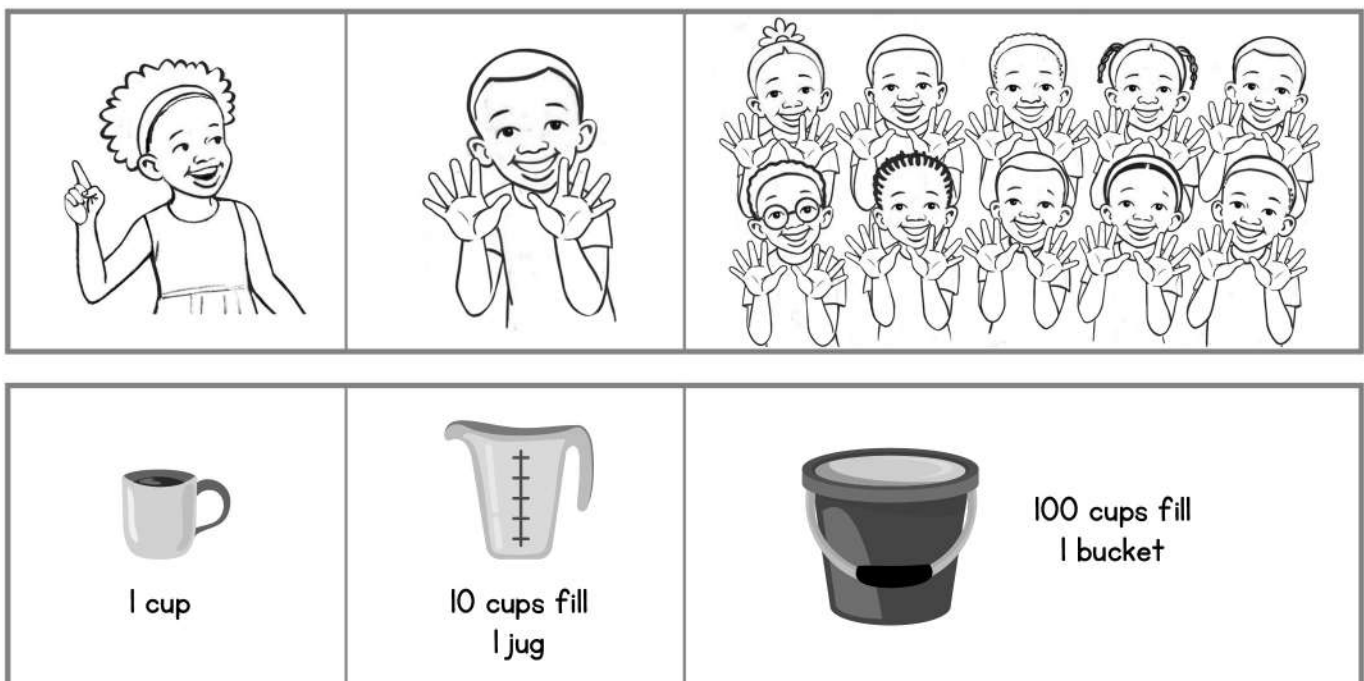
Here are some other tips to make counting strategic:

- Do not allow counting to go on too long – children stop thinking 😊.
- Choose start numbers and end numbers that make learners think.
- Make sure you count BACKWARDS as much as you count FORWARDS!

4.2. Counting in 1s, 10s and 100s!

By the end of Grade 2, ALL children must be able to count forward and backwards in 1s, 10s and 100s between 0 and 1000.

- We call 1 the small counting number.
- We call 10 the medium counting number.
- We call 100 the big counting number.



4.2.1. Counting in 1s:

All learners should be able to count forward and backwards in 1s, starting and ending at any number between 0 and 100:

- Start with numbers between 0 and 20.
- Extend to 30.
- Extend to 50.
- Can you reach 100?

Example: Count backwards from 13 to 7

STEP 2: Strategic Counting

- We call 1 the small counting number.
- When we count forwards in ones we are adding ones.
- When we count backwards in ones we are subtracting ones.

4.2.2. Counting in 10s:

By the end of Grade 1, we hope that learners can count forwards and backwards by 10, on the 10s.

For example: Count backward from 100 to 0 in 10s.

100, 90, 80, 70...

- Note also that toward the end of Grade 1, we ask you to practice counting forwards in 10s (from any number between 0 and 10) to 100. Support your learners to count along using their number charts. We want learners to HEAR the logic of tens, even if they have not yet mastered it!

- We call 10 the medium counting number.
- When we count forward in 10s, we are adding 10s!
- When we count backward in 10s, we are subtracting 10s!

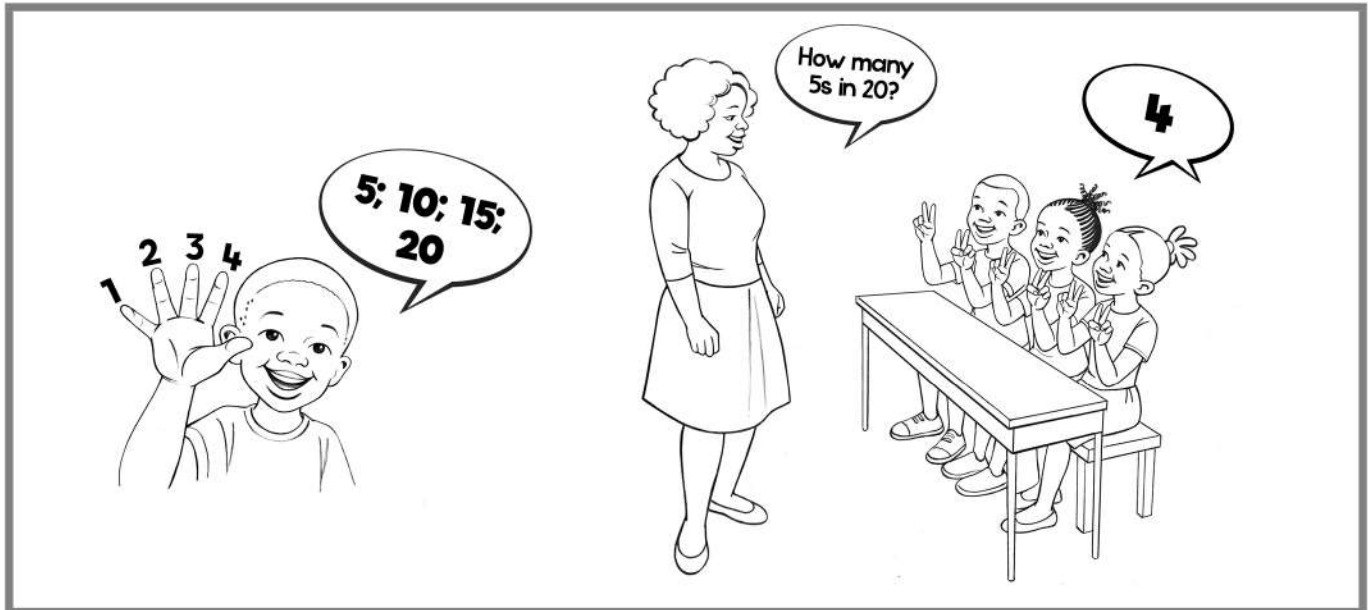
4.3. Counting in 2s and 5s

Another priority for counting in Grade 2 is to ensure that children can count forwards and backwards in 2s and 5s. All learners should be able to:

- **Counting 2s / Even Numbers:** Count forwards and backwards in 2s, starting and ending on an even number. Use numbers between 0 and 20. Can you go higher?
- **Counting in 2s / Odd Numbers:** Count forwards and backwards in 2s, starting and ending on an odd number. Use numbers between 0 and 20. Can you go higher?
- **Counting in 5s / Multiples of 5:** Count forwards and backwards in 5s, starting and ending on a multiple of 5. Use numbers between 0 and 20. Can you go higher?

LESSON STARTERS

STEP 2: Strategic Counting



4.4. Counting for Multiplication and Division

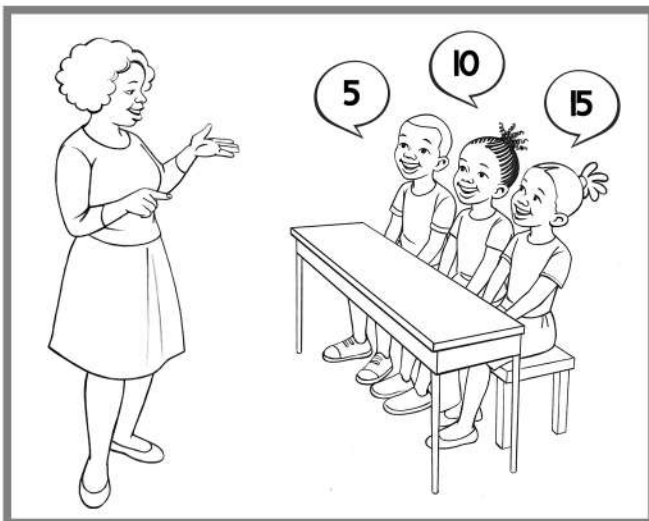
There are some simple things we can do to make sure that strategic counting contributes to children learning multiplication and division. When we practice counting forwards in 2s, we can help children begin to understand and learn both multiplication and division:

- Ask learners to count, using their fingers to keep track of how many numbers as they count.
- After counting ask: "How many 2s in 10?"
- Respond, "We say we separate 10 into 5 groups of 2. We say 2 repeated 5 times is 10."

4.5. How Teachers Count with Learners

There are three main ways teachers count with learners in a big class:

1. **Whole Class Together:** Many teachers are very skilled at having children count altogether. This is one good strategy. The problem is that often some children do not pay attention.
2. **Whole Class / Learner by Learner:** Some teachers ask one child to start, and the next child continues, going up and down rows (or around the classroom) so that all children participate.
3. **Written:** Another good technique is to ask learners to quickly write the number sequence in their counter books.



What other ways can you find to make counting speedy and fun?

OK! Let's Count!

In each week's Lesson Plan we give a recommendation for a counting range. This is only a recommendation. You know your learners better than we do. Our recommendation may be either too fast, or too slow, for your learners. You drive your classroom! Keep reflecting on the

strategic rules and goals for Grade 1 counting presented above.

- Remember, do not spend too much time counting. It should not take more than a few minutes.

STEP 3: Games in Pairs

5. Game in Pairs!

OK. Drum roll please! Everything we have suggested so far will be relatively easy for you to try in your classroom. We are now asking you to try something new! We want your learners to play maths games in pairs! Many of us as teachers had not done this before, and at the beginning we thought it would be chaos. Over time, our learners have learned to get into pairs quickly and quietly. And they LOVE playing fast maths games together.

The first game we want you to play, we call "Pairs Prepare!" In this game your learners will simply PRACTICE getting into and out of pairs quickly and quietly.

5.1 Prepare: Getting into Pairs

To prepare for this game, all learners must have a partner who sits right next to them. Learners must be able to quickly turn to their partner, every time you say, "Pairs prepare!" See the illustration. You will call, "Pairs Prepare!" When you call "Pairs Prepare" learners should stand up quickly and quietly and face their partner, touching fists. If any child makes noise, she is out of this round of the game! 😊

When you say, "Back Home!" children must sit back in their seats quietly. When your learners can get into and out of pairs you are ready to try playing in pairs!

LESSON STARTERS

STEP 3



We will play many games in pairs.
We can only play if we know how to get into pairs
and out of pairs quickly and quietly!
Let's practice! Do you know your partner?

QUICK PAIRS!		
Your teacher will call, "PAIRS PREPARE;"	- Stand up quietly and quickly. Face your partner touching fists. - Your teacher will say, "BACK HOME!"	Sit back down quickly and quietly with your hands in your lap.



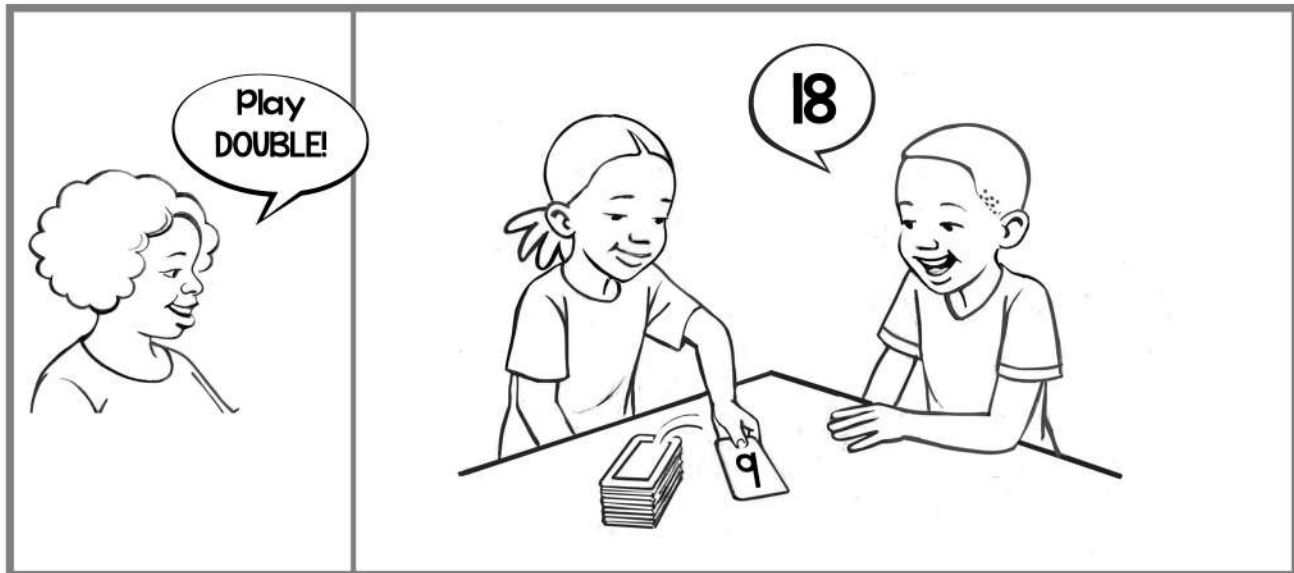
5.2 Prepare: Make Number Cards

In order to play the pair games this term, learners must each have a set of number cards. Photocopy the cards on Pages 115 - 117 for each child. Have each child cut out a set of number cards from 0 to 10. Find a safe space to store the cards. Many of us store the cards in plastic sandwich bags.



LESSON STARTERS

STEP 3: Games in Pairs

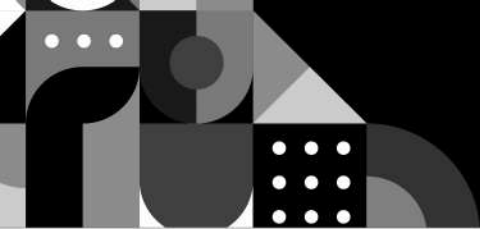


5.3 OK! Play!

In the Lesson Plans, you will see that we suggest one or two games to play each week. These games are meant to build fluency. When children first play, they may move slowly. Over time, encourage them to move faster.

If you play this set of games across this term, learners will develop fluency in bonds to 10, bonds of 10, double and half. These are super important skills as children move forward!

Check out the instructions and the illustrations of each game carefully. Make sure you study the game BEFORE you play it in your class. Play with another teacher or a child at home!



LESSON STARTERS

BIG IDEA OF THE WEEK

Big Idea of the Week

In each week of your Lesson Strategy, we provide a BIG IDEA OF THE WEEK. This is a strategic lesson that is designed to BOTH help children recover from backlogs AND develop a strong foundation for maths in Grade 1 and the intermediate phase.

You can prepare your chalkboard in two ways. The picture in this guide demonstrates how to present the lesson on the chalk board. Then write a few problems on the chalkboard which children can work on that day in their counter books. We recommend doing a few problems each day. (Some teachers give two sets of problems. They have half of the class work on a set of problems, and half of the class (who are stronger) work on a harder set of problems.

See notes in each week about the lesson.

Daily Maths Lesson

You now have 50 minutes to give your daily planned maths lesson for the day. You may be drawing this from NECT Lesson Plans, or the DBE Workbook. If children are not done with the work on time, ask them to stop, and continue the work later.



FRIDAYS: Timed Tango!

8.1. Introduction

On Fridays we do something different! We do a Timed Tango! The Timed Tango is a TIMED activity where learners work through 10 problems as quickly as they can. It helps children build fluency!

8.2. What are the Goals of the Timed Tango?

The Timed Tango is an opportunity to build learner's understanding, strategies and fluencies of addition and subtraction at a low number range. By doing the Timed Tango each week, we can achieve three goals:

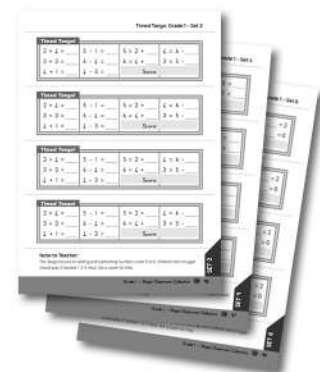
1. Ensure learners have an *understanding* of addition and subtraction problems in the different ways problems can be presented.
2. Ensure learners have a *strategy* for answering addition and subtraction problems in all of the way's problems can be presented.
3. Support learners to gain *speed* (fluency) in answering addition and subtraction problems in all of the way's problems can be presented.

We start with 0 to 10. We build to 20.



8.3. How Do I Prepare for a Timed Tango?

- **Timed Tango Marking Sheet:** Photocopy the Timed Tango marking sheet for each learner. Ask each learner to complete their name and grade. See page 93.
- **Photocopy Timed Tango:** We provide a page of Timed Tango for each week. See pages 94 - 105. Before Friday, photocopy the Timed Tango for that week. Photocopy enough to give one problem set to each learner. There are FOUR problem sets on each page. Cut each page into four pieces.



Example: If there are 40 learners in my class, I make 10 copies of the page. I cut each page into four problem sets. I have one problem set for each learner.

Timed Tango!

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

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

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

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

$3 - 1 = \underline{\quad}$

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

$\underline{\quad} = 3 + 1$

$\underline{\quad} = 2 + 0$

Score:

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

$\underline{\quad} = 3 - 1$

- **Distribute to Desks:** Before learners arrive for the maths lesson, distribute the Timed Tango problem set for each learner FACE DOWN on their desks.
- **Explain and Practice:** On the day before your first Timed Tango, explain to learners how it works. (See below.)

8.4. How Does a Timed Tango Work?

On the day before you start with the Timed Tango, explain that when they come into math the following day they will find a small piece of paper face down on their desks. Tell learners NOT to look at the paper until you tell them to start.

Explain that exactly 30 seconds after class begins, you will tell them to begin. (*This encourages learners to be on time ready to go!*) They will see 10 maths problems. They are to work through the problems as quickly as they can. After exactly ONE MINUTE you will tell them to stop. They must put their pencils down!

FRIDAYS: Timed Tango!

8.5. Marking and Discussing

Work through the answers with the class. Discuss how learners approached each problem. Read the basic strategies discussed below.

Have learners count the number of CORRECT answers and record both the date and number correct on their Tango Tracker.

8.6. Is this a Test??

Mainly no. It is a fun way to practice!!! Do the Timed Tango in a fun sporty manner. It is not supposed to be a scary test. The Tango is a fast and fun dance.

And remember, when we get problems wrong, then we can LEARN. Celebrate getting things wrong and trying again!!

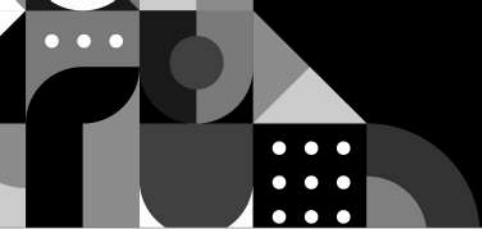
8.7. Time Tango Review of Strategies

The discussion of the Timed Tango gives us an important opportunity to remind children of the meaning of addition and subtraction sentences, and to discuss strategies to answer them.

There are three main strategies we want to review, each discussed briefly below.

8.7.1. Put the First Number in Our Heads!

The first strategy we want to reinforce is the strategy of putting the first number in our heads. In addition, we count forward in ones. In subtraction we count backwards to subtract ones.



LESSON STARTERS

FRIDAYS

Addition	Subtraction
$4 + 9 =$	$12 - 3 =$
- Put the largest number in your head - Tap 3 times to make sure it is in there. - Count forward in ones to add - Use your fingers to keep track.	- Put the first number in your head. - Tap 3 times to make sure it is in there. - Count backwards in ones to subtract - Use your fingers to keep track

8.7.2 Equal Means the Same As

Children mainly see addition and subtraction problems presented similar to those on the left. Remind children that the equal sign “=” means, “**is the same as.**” (*It does not mean “the answer is.”*) Children should be comfortable seeing problems presented the way they are presented on the left and right.

$7 + 3 =$ _____	_____ $= 7 + 3$
$10 - 3 =$ _____	_____ $= 10 - 3$



FRIDAYS: Timed Tango!

8.7.3 Moving the Unknown

We also want learners to be able to interpret addition and subtraction sentences where the unknown is moved around.

The table below takes a simple addition sentence ($7 + 3 = 10$) and its related subtraction sentence ($10 - 3 = 7$) and demonstrates how the unknown can move around. We identify the problem, provide a word sum to illustrate the problem, show an example of this problem, and discuss calculation strategies.

Over time, we want children to calculate using known facts. For children who do not have enough known facts, they may count in ones. We provide examples of both.

You may want to work through each type of example with your learners. Do one type of learners in a day. Allow learners to practice many examples.

Table: Moving Around the Unknown in Addition

$7 + 3 = \underline{\quad}$ <table border="1" data-bbox="228 679 532 849"> <tr><td colspan="2"></td></tr> <tr><td>7</td><td>3</td></tr> </table>			7	3	Example: There are 7 children in the taxi. 3 more get on. How many are children are on the taxi now? Using Known Facts: Put biggest number in our head. I jump forward 3 to 10. Counting in Ones: Put biggest number in our head. Count forward in ones.
7	3				
$7 + \underline{\quad} = 10$ <table border="1" data-bbox="228 1097 532 1267"> <tr><td colspan="2">10</td></tr> <tr><td>7</td><td></td></tr> </table>	10		7		Example: There are 7 children in the taxi. Some more children get on. Now there are 10. How many children got on? Calculation: How many from 7 to get to 10? Using Known Facts: I know that $7 + 3 = 10$. Therefore, the answer is 3. Counting in Ones: What must I add to 7 to get to 10? - Put the 7 in your head. Count forward in ones to 10. - Put the 10 in your head. Count backwards in ones to 7.
10					
7					
$\underline{\quad} + 3 = 10$ <table border="1" data-bbox="228 1503 532 1673"> <tr><td colspan="2">10</td></tr> <tr><td></td><td>3</td></tr> </table>	10			3	Example: There are some children in the taxi. 3 more get on. Now there are 10. How many children were on the taxi at the beginning? Calculation: How much must I add to 3 to get to 10. Or when I add 3 to this number, I get 10. Using Known Facts: I know that $7 + 3 = 10$. Therefore the answer is 7. Counting in Ones: - Put 3 in our head. Count forward to 10. - Put 10 in our head, and count backwards 3. - Try both. Which do you think is a more "efficient" strategy? Why?
10					
	3				

LESSON STARTERS

FRIDAYS: Timed Tango!

Table: *Moving Around the Unknown in Subtraction*

$10 - 3 = \underline{\quad}$ <table border="1" data-bbox="227 677 532 849"> <tr><td colspan="2">10</td></tr> <tr><td></td><td>3</td></tr> </table>	10			3	Example: There are 10 children in the taxi. 3 children get off. How many children are on the taxi now? Calculating with Known Facts: I know that $7 + 3 = 10$. Therefore, I know: $10 - 3 = 7$. Calculating Counting in Ones: Put the first number in our head. Count backwards in ones.
10					
	3				
$10 - \underline{\quad} = 7$ <table border="1" data-bbox="227 1095 532 1267"> <tr><td colspan="2">10</td></tr> <tr><td>7</td><td></td></tr> </table>	10		7		Example: There are 10 children in the taxi. Some children get off. Now there are 7 children in the taxi. How many children got off? Calculation: - Put 10 in your head. Count backwards to 7. - Put the number 7 in your head. Count forward to 10.
10					
7					
$\underline{\quad} - 3 = 7$ <table border="1" data-bbox="227 1503 532 1676"> <tr><td colspan="2"></td></tr> <tr><td>7</td><td>3</td></tr> </table>			7	3	Example: There are some children in the taxi. 3 more get on. Now there are 10. How many children were on the taxi at the beginning? Calculation: - When I subtract 3, I get 7. - I put 7 in my head, and count forward in ones three times.
7	3				

1-Minute Tango!

Name: _____

Grade: _____ Teacher Signature: _____

Date	Mark out of 10	Percentage

Timed Tango!

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

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

$\underline{\quad} = 3 + 1$

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

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

$3 - 1 = \underline{\quad}$

$\underline{\quad} = 2 + 0$

$\underline{\quad} = 3 - 1$

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

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

Score:

Timed Tango!

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

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

$\underline{\quad} = 3 + 1$

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

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

$3 - 1 = \underline{\quad}$

$\underline{\quad} = 2 + 0$

$\underline{\quad} = 3 - 1$

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

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

Score:

Timed Tango!

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

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

$\underline{\quad} = 3 + 1$

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

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

$3 - 1 = \underline{\quad}$

$\underline{\quad} = 2 + 0$

$\underline{\quad} = 3 - 1$

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

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

Score:

Timed Tango!

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

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

$\underline{\quad} = 3 + 1$

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

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

$3 - 1 = \underline{\quad}$

$\underline{\quad} = 2 + 0$

$\underline{\quad} = 3 - 1$

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

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

Score:

Note to Teacher:

This Tango focuses on adding and subtracting 0 to 5. Problems are presented as: $2 + 1 = \underline{\quad}$ AND $\underline{\quad} = 2 + 1$. Remind learners that the equal sign (=) means “is the same as.” We can present problems in both of these ways!

Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Note to Teacher:

This Tango focuses on adding and subtracting numbers under 6. Children who struggle should play 3 handed 1-2-3 Vesa! Ask a coach for help.



Timed Tango!

$7 + 1 = \underline{\quad}$

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

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

$\underline{\quad} = 6 - 1$

$0 + 1 = \underline{\quad}$

$8 - 1 = \underline{\quad}$

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

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

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

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

Score:

Timed Tango!

$7 + 1 = \underline{\quad}$

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

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

$\underline{\quad} = 6 - 1$

$0 + 1 = \underline{\quad}$

$8 - 1 = \underline{\quad}$

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

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

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

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

Score:

Timed Tango!

$7 + 1 = \underline{\quad}$

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

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

$\underline{\quad} = 6 - 1$

$0 + 1 = \underline{\quad}$

$8 - 1 = \underline{\quad}$

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

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

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

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

Score:

Timed Tango!

$7 + 1 = \underline{\quad}$

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

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

$\underline{\quad} = 6 - 1$

$0 + 1 = \underline{\quad}$

$8 - 1 = \underline{\quad}$

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

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

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

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

Score:

Note to Teacher:

This Tango focuses on adding and subtracting one between 0 and 10.

Timed Tango!

$4 + 0 = \underline{\quad}$

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

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

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

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

$7 - 0 = \underline{\quad}$

$1 + \underline{\quad} = 7$

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

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

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

Score:

Timed Tango!

$4 + 0 = \underline{\quad}$

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

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

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

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

$7 - 0 = \underline{\quad}$

$1 + \underline{\quad} = 7$

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

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

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

Score:

Timed Tango!

$4 + 0 = \underline{\quad}$

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

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

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

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

$7 - 0 = \underline{\quad}$

$1 + \underline{\quad} = 7$

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

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

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

Score:

Timed Tango!

$4 + 0 = \underline{\quad}$

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

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

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

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

$7 - 0 = \underline{\quad}$

$1 + \underline{\quad} = 7$

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

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

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

Score:

Note to Teacher:

This Tango focuses on adding and subtracting numbers under 7. Children who struggle should play 3 handed 1-2-3 Vesa. Ask a coach for help.



Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Note to Teacher:

This Tango focuses on number facts up to 10.



Timed Tango!

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

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

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

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

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

$8 - 1 = \underline{\quad}$

$1 + \underline{\quad} = 8$

$5 - \underline{\quad} = 0$

$8 + 0 = \underline{\quad}$

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

Score:

Timed Tango!

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

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

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

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

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

$8 - 1 = \underline{\quad}$

$1 + \underline{\quad} = 8$

$5 - \underline{\quad} = 0$

$8 + 0 = \underline{\quad}$

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

Score:

Timed Tango!

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

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

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

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

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

$8 - 1 = \underline{\quad}$

$1 + \underline{\quad} = 8$

$5 - \underline{\quad} = 0$

$8 + 0 = \underline{\quad}$

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

Score:

Timed Tango!

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

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

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

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

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

$8 - 1 = \underline{\quad}$

$1 + \underline{\quad} = 8$

$5 - \underline{\quad} = 0$

$8 + 0 = \underline{\quad}$

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

Score:

Note to Teacher:

This Tango focuses on adding and subtracting numbers up to 8. Children who struggle should play 3 handed 1-2-3 Vesa. Ask a coach for help.



Timed Tango!

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

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

$0 + \underline{\quad} = 9$

$9 - \underline{\quad} = 4$

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

$9 - 8 = \underline{\quad}$

$3 + \underline{\quad} = 9$

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

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

$9 - 4 = \underline{\quad}$

Score:

Timed Tango!

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

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

$0 + \underline{\quad} = 9$

$9 - \underline{\quad} = 4$

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

$9 - 8 = \underline{\quad}$

$3 + \underline{\quad} = 9$

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

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

$9 - 4 = \underline{\quad}$

Score:

Timed Tango!

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

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

$0 + \underline{\quad} = 9$

$9 - \underline{\quad} = 4$

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

$9 - 8 = \underline{\quad}$

$3 + \underline{\quad} = 9$

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

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

$9 - 4 = \underline{\quad}$

Score:

Timed Tango!

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

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

$0 + \underline{\quad} = 9$

$9 - \underline{\quad} = 4$

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

$9 - 8 = \underline{\quad}$

$3 + \underline{\quad} = 9$

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

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

$9 - 4 = \underline{\quad}$

Score:

Note to Teacher:

This Tango focuses on number facts up to 9.

Timed Tango!

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

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

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

$7 - \underline{\quad} = 3$

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

$8 - 4 = \underline{\quad}$

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

$9 - \underline{\quad} = 4$

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

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

Score:

Timed Tango!

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

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

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

$7 - \underline{\quad} = 3$

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

$8 - 4 = \underline{\quad}$

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

$9 - \underline{\quad} = 4$

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

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

Score:

Timed Tango!

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

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

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

$7 - \underline{\quad} = 3$

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

$8 - 4 = \underline{\quad}$

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

$9 - \underline{\quad} = 4$

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

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

Score:

Timed Tango!

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

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

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

$7 - \underline{\quad} = 3$

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

$8 - 4 = \underline{\quad}$

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

$9 - \underline{\quad} = 4$

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

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

Score:

Note to Teacher:

This Tango focuses on bonds of 10.
Very important! Keep practicing!



Timed Tango!

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

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

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

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

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

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

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

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

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

$10 - \underline{\quad} = 0$

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

$10 - \underline{\quad} = 0$

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

$10 - \underline{\quad} = 0$

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

$10 - \underline{\quad} = 0$

Score:

Note to Teacher:

This Tango focuses on bonds of 10.
Very important! Keep practicing!

Timed Tango!

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

$0 + \underline{\quad} = 10$

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

$0 + \underline{\quad} = 10$

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

$0 + \underline{\quad} = 10$

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

$0 + \underline{\quad} = 10$

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

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

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

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

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

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

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

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

Score:

Note to Teacher:

This Tango focuses on bonds of 10.
Very important! Keep practicing!

Timed Tango!

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

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

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

$8 - \underline{\quad} = 4$

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

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

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

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

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

$8 - 4 = \underline{\quad}$

Score:

Timed Tango!

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

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

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

$8 - \underline{\quad} = 4$

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

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

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

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

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

$8 - 4 = \underline{\quad}$

Score:

Timed Tango!

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

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

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

$8 - \underline{\quad} = 4$

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

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

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

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

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

$8 - 4 = \underline{\quad}$

Score:

Timed Tango!

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

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

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

$8 - \underline{\quad} = 4$

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

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

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

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

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

$8 - 4 = \underline{\quad}$

Score:

Note to Teacher:

This Tango focuses on doubles between 0 and 10.
Very important! Keep practicing!



Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

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

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

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

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

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

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

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

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

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

Score:

Timed Tango!

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

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

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

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

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

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

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

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

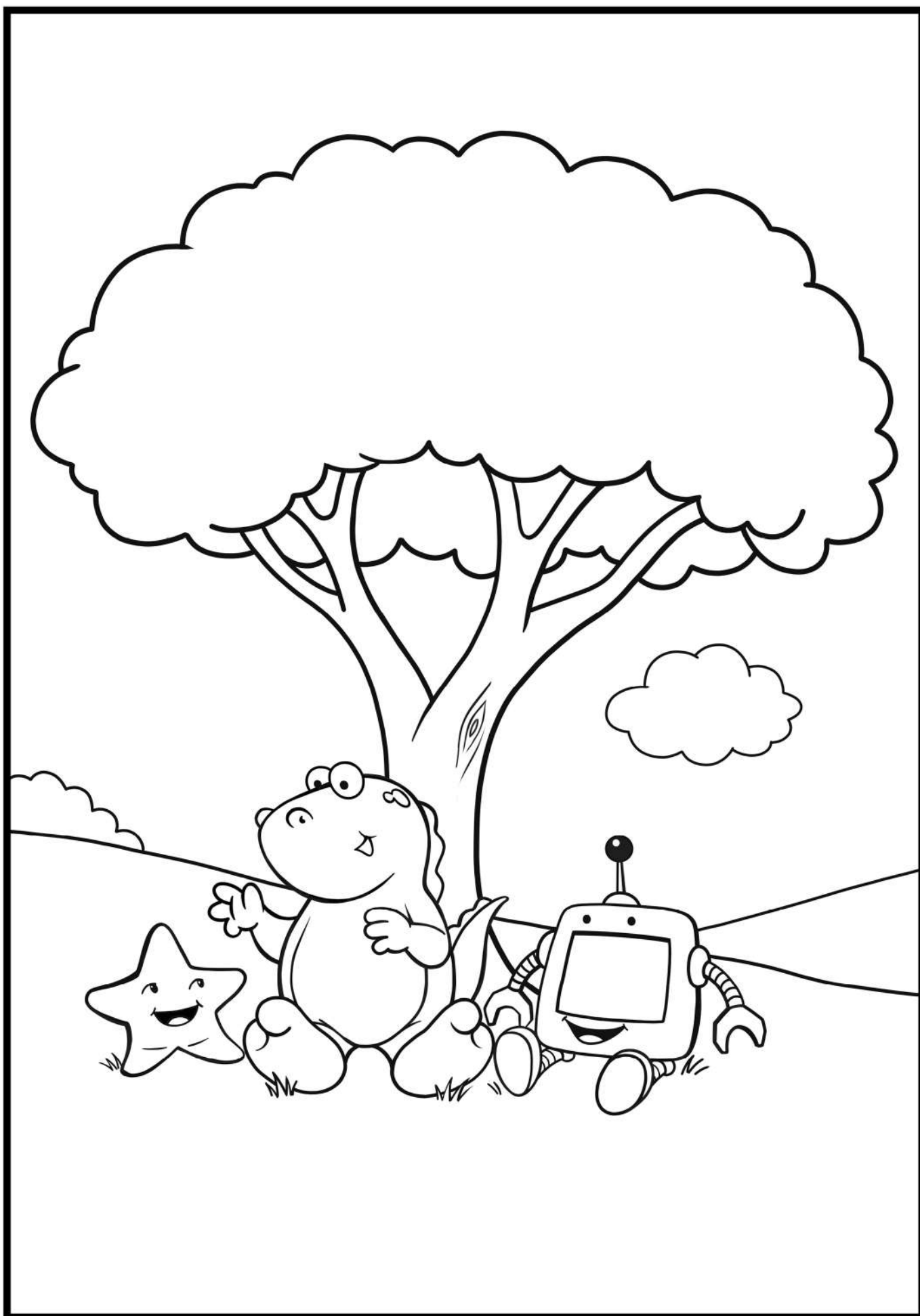
$10 - \underline{\quad} = 4$

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

Score:

Note to Teacher:

This Tango focuses on bonds of 10.
Very important! Keep practicing!

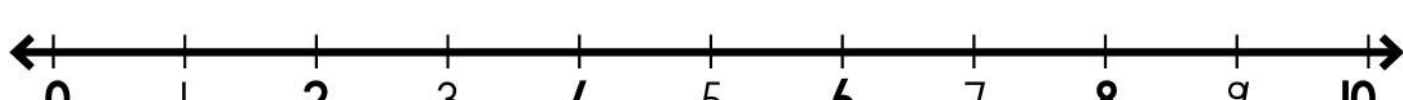
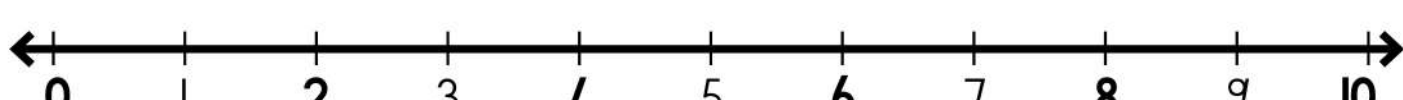
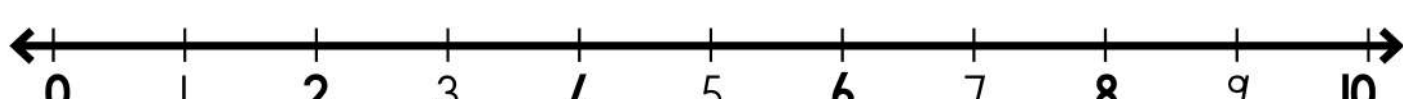
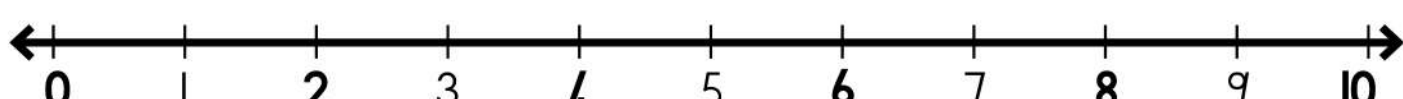
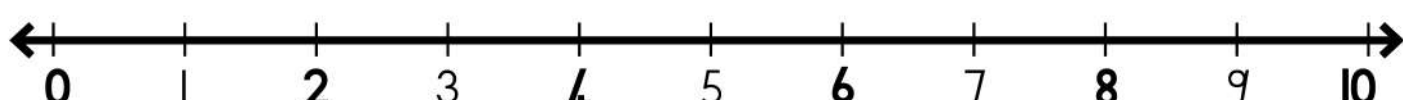
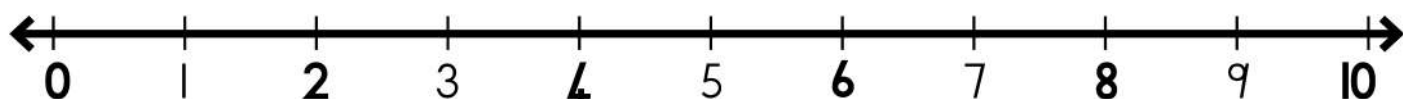
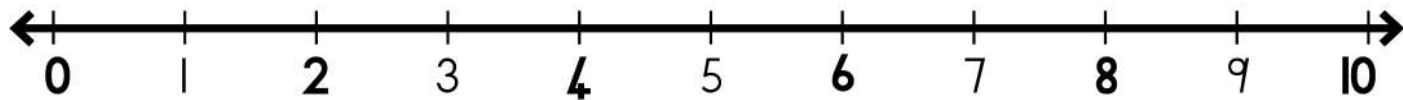


Number Lines and Chart

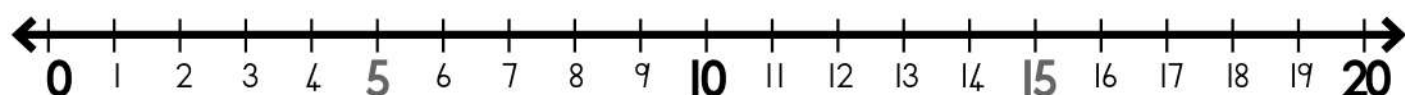
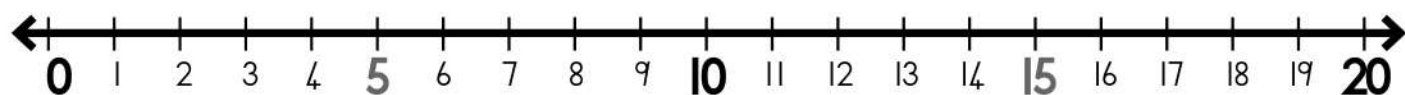
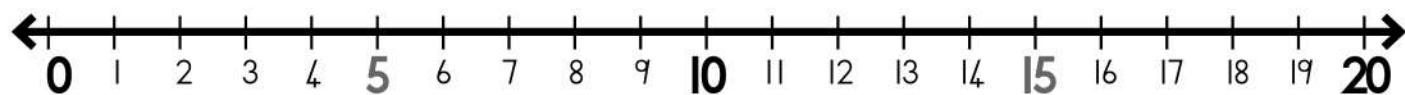
- Photocopy and cut out number lines.
See Page 109 - 111.
- Tape onto desks using clear packing tape.
- Photocopy and cut out number charts.
See Page 113
- Tape onto desks using clear packing tape.













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

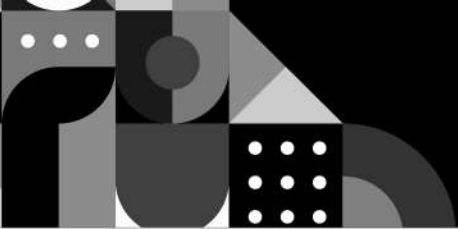
91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

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

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

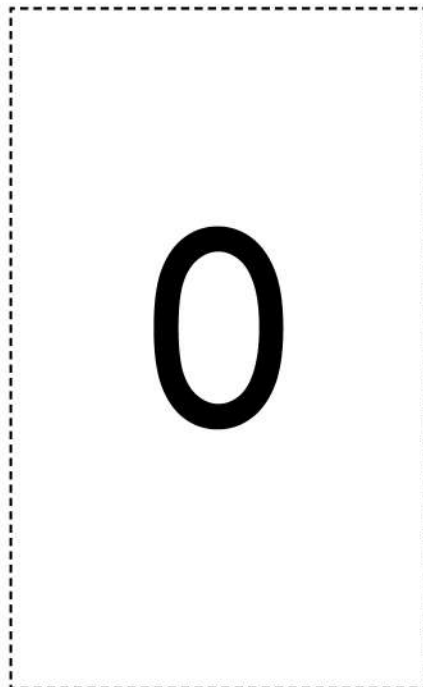
91	92	93	94	95	96	97	98	99	100
81	82	83	84	85	86	87	88	89	90
71	72	73	74	75	76	77	78	79	80
61	62	63	64	65	66	67	68	69	70
51	52	53	54	55	56	57	58	59	60
41	42	43	44	45	46	47	48	49	50
31	32	33	34	35	36	37	38	39	40
21	22	23	24	25	26	27	28	29	30
11	12	13	14	15	16	17	18	19	20
1	2	3	4	5	6	7	8	9	10

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



NUMBER CARDS

Carefully cut out the number cards from 0 - 10.
Store them in a safe place!







1

2

3

4

5

6

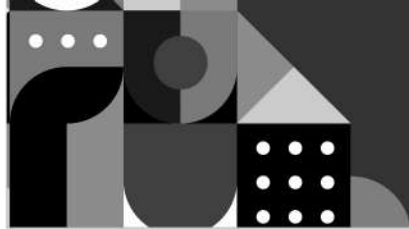
7

8

9

10





NUMBER CHART: 1 – 100

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

Lo ngumsebenzi esizidla ngawo weMagic Classroom Collective (MCC)

The Magic Classroom Collective is a partnership between the Nelson Mandela Institute at the University of Fort Hare and the Eastern Cape Department of Education. The materials have been designed by a long term partnership between the NMI and rural primary schools in the Eastern Cape.

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