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Numeracy
lesson plans
Primary 2
Term 1
Creating an
effective learning
environment

## Weeks

1-5

## Numeracy lesson plans Primary 2 Term 1 <br> Creating an effective learning environment

This is the first
in a series of six numeracy lesson plan publications, designed to be used throughout the three academic school terms.


## Introduction

Quality education is a direct result of the quality of teaching and teachers, more than anything else. Unfortunately, it is in these most critical factors that Kwara State education has suffered the worst setback in recent years.
Reports showing that the majority of children completing the first six years of basic education are unable to read or write have raised serious concerns about the quality of teaching and teachers in our schools.

It was concluded that pupils failed because the teachers' basic education had also failed. In other words, they were all victims of an education system that has collapsed at all levels. Therefore, in seeking to address this serious problem, our intervention is holistic and delivered on a sustained basis.

These lesson plans have been described as a 'cookery book' approach to teacher training. As a teaching manual, they have been designed to provide a step-by-step guide to teachers of literacy and numeracy, while ensuring that children become active learners.

In using these lesson plans, teachers are continuously supported by both the State School Improvement Team and the school support officers who have been trained to provide such support.
I am delighted to note that within a very short time of these lesson plans being introduced into our schools, children's learning abilities have improved considerably. The lesson plans have also made learning and teaching a lot more exciting for both teachers and pupils.

I am confident that these lesson plans will raise standards in our schools and improve the quality of children proceeding to higher levels of education in the near future.

I commend all those who have worked very hard to produce these lesson plans and thank the UK Department for International Development (DFID) for its abiding support to Kwara's education reform through its ESSPIN project.

## Bolaji Abdullahi

Honourable Commissioner for Education, Science and Technology, Kwara State

Numeracy lesson plans Primary 2

## Term 1

Creating an
effective learning environment

## Introduction

## Creating an effective learning environment

Weeks
1—5

## An effective learning

 environmentThe school environment has to make pupils feel comfortable, and stimulate their minds for learning to take place. There is plenty you can do to improve the feel of the classroom for your pupils.

1
Teaching methodology
The lesson plans use a large variety of activities. If followed carefully, they will keep the pupils interested, motivated and will support effective learning in a structured way. These methods are designed to involve pupils in their learning and give them the opportunity to learn from each other.

2
Build good relationships
Learn all your pupils' names and use them frequently.
Find out about your pupils' lives and interests by listening to them and asking questions. Greet them individually in the mornings and encourage them to greet and talk to each other.

Tell them about yourself and your family. Pupils love finding out that teachers are 'human' too!

Notice when pupils are unhappy and make an extra effort to be friendly to them. Smile and make learning fun for the pupils.
Praise and encourage pupils for effort and achievement, instead of punishing them for 'laziness' or getting things wrong. Shouting and treating your pupils harshly, or beating them, will affect them emotionally and make them unable to learn.

3
Use classroom space

Arrange the seating in different ways. Look at the photographs in some of the lesson plans to help you think of different ways of working.

U-shaped formations mean all the pupils can see each other and there is a space in the middle for activities.
Pushing tables together means that four or six pupils can sit together.
If there is no space in your classroom, take the pupils outside to play circle games or do activities.

## 4

Display
Displaying pupils' work is motivating and helps them to remember things they have learned. The activities in these lesson plans encourage you to display pupils' work in different ways.

At the start of each week display the key words.

5
Teaching aids
There are lots of suggestions in the lesson plans for making
low- and no-cost teaching aids. Making these may take some time, but they can be used more than once and can last a long time if they are made carefully.

Numeracy lesson plans
Primary 2

## Term 1 <br> Creating on <br> effective learning environment

Weeks
1-5

## Introduction

 Games for the term
## Target throw

Provide or have ready objects to throw such as bottle tops or any lids/ covers, matchboxes, etc in required numbers.

Write a whole number up to 100 in or on each of the bottle tops or objects to throw, as shown below.

## Bottle tops



54

Make a chart on the back of an old calendar or poster chart, like the one below.

Place the chart on the floor.
Ask the first player to throw the object/bottle top on the chart.

Where the bottle top landed on the chart the player says whether the number on the chart is less than or greater than the number on the bottle top.

What's the time, Mr Lion?

One pupil stands with their face against the wall so they can't see the other pupils.
The other pupils stand behind and chant 'What's the time, Mr Lion?'

The pupil pretending to be the lion turns around to look at the others and shouts a time, eg: 'it's 10 o'clock'.

The others have to stand absolutely still and not move.

The lion then turns around and shouts a different time after a short pause.

This continues until the lion shouts 'dinner time!' and chases the rest of the pupils to try and catch them.
Play the game once or twice.

Numeracy lesson plans Primary 2

## Term 1

Creating an
effective learning environment

Neeks
1-5

Introduction
Songs and rhymes for the term

| 5 little monkeys | 5 long yams | 5 little ducks | 10 green bottles |
| :---: | :---: | :---: | :---: |
| 5 little monkeys jumping on the bed / <br> 1 fell off and bumped his head / <br> Mummy called the doctor, <br> The doctor said / <br> 'No more monkeys jumping on the bed'. <br> 4 little monkeys... <br> 3 little monkeys... <br> 2 little monkeys... <br> 1 little monkey... | ```5 long yams in a farmer's field / Round and fat, and ready to be picked / Along came (sing the name of a pupil) with a hoe one day / Picked a yam and took it away. 4 long yams... 3 long yams... 2 long yams... 1 long yam...``` | 5 little ducks went swimming one day / Over the hills and far away / Mummy duck called, 'quack, quack, quack, quack,' / But only 4 little ducks came back. <br> 4 little ducks... <br> 3 little ducks... <br> 2 little ducks... <br> 1 little duck... | 10 green bottles standing on the wall (x2) / If 1 green bottle should accidentally fall / There'd be 9 green bottles standing on the wall / 9 green bottles standing on the wall... <br> (Repeat until no more bottles are left standing.) |




Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 1
1-100
Day 1

## Counting to 50

Lesson

## Learning outcomes

By the end of the lesson, most pupils will be able to:
Identify the hour and minute hand of the clock and say the time using o'clock.
Recognise the numbers 1-50.

## Teaching aids

## Before the lesson:

Have ready a large dummy or real clock.

Have ready a Hundred square for class use during the next term.
Read MAN Primary Mathematics 2, pages 1-2.
Provide one set of place value cards for each pair of pupils.

## Daily practice

## Whole class teaching

Show the wall clock to the pupils.
Ask pupils to tell you what we use a clock for.

Ask them to talk to the person sitting next to them and think of two reasons why we need to be able to tell the time.

Ask each pair to tell everyone one reason, eg: so that everyone comes to school at the same time.

Write their reasons on the chalkboard.
Ask the pupils to say the days of the week with you, in order.

| 10 MAN Primary <br> minutes Mathematics 2 | 25 <br> minutes | MAN Primary Mathematics 2 |  | 10 minutes |
| :---: | :---: | :---: | :---: | :---: |
| Introduction | Main activity |  |  | Plenary |
| Whole class teaching | Pair task |  |  | Whole class teaching |
| Ask pupils to count to 50 together, using the Hundred square, as you point to the numbers. | Give each pair a set of number cards from 0-9 and a small round stone. |  | Ask the other person in pair to make that number using the place value cards. <br> Ask them to continue | Ask one pupil from each pair to select a number they have made and point to it on the Hundred square. |
| Ask pupils to count with a partner to 50 using the Hundred square in MAN Primary Mathematics 2, page 1. | Ask them to cover up half of the Hundred square, so that they can only see numbers $1-50$. |  | until they have made five different numbers each. <br> Ask them to complete MAN Primary Mathematics 2, pages 1 and 2, II, in their |  |
| Point to any number at random on the Hundred square and ask the pupils to say the number. | Ask one of them to roll the small stone on to the Hundred square in MAN Primary Mathematics 2, page 1 and call out the number. |  | pairs, making the correct number with their number cards, instead of ticking the correct answer. |  |
| Ask individual pupils to say random numbers and ask the rest of the class to point to that number. |  |  |  |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 1
1-100
Day 2

## Counting to 100

(

## Learning outcomes

By the end of the lesson, most pupils will be able to:
Tell the time using o'clock.
Identify the numbers 1-100 using a Hundred square.
Use a Hundred square to count forwards and backwards from any given points.

## Teaching aids

Before the lesson:
Have ready a large dummy wall clock or real clock.

Read MAN Primary Mathematics 2, page 1.
For each pair of pupils provide one set of number cards from $0-9$ and a small stone.

15
minutes

Daily practice

## Whole class teaching

Ask the pupils to tell you any times that they know, eg: at 8 o'clock we come to school. Record their ideas on the chalkboard.
Explain that the long hand points to the hour and the minute hand to the minutes.
Point the long hand to the 12 and the short hand to the 2 , and tell the pupils that this is 2 o'clock, because the minute hand is pointing to the number 12 and the hour hand is pointing to 2 .

Show 1 o'clock on the large wall clock and ask individual pupils to say the time.

Repeat with different o'clock times.

| $\begin{array}{l\|l} 10 & \text { MAN Primary } \\ \text { minutes } & \text { Mathematics 2 } \end{array}$ |  | 25 MAN Primar <br> minutes Mathematic |  | 10 minutes | Song |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Introduction |  | Main activity |  | Plenary |  |
| Whole class teaching |  | Pair task |  | Whole class teaching |  |
| Ask pupils to count to 100 together as you point to the numbers on the Hundred square. | Point to any number at random on the Hundred square and ask the pupils to say the number. | Ask the pupils to find the Hundred square in MAN Primary Mathematics 2, page 1. | Ask them to repeat. <br> When they have had three or four turns ask them to turn over four cards | Sing or say some of their favourite counting songs or rhymes, eg: '5 little monkeys', '10 green bottles', etc. |  |
| Ask different groups of pupils to count different sections, eg: anyone wearing blue to count to 25 , anyone with short hair to count from 25-40, etc. <br> Ask pupils to count with a partner using the Hundred squares in MAN Primary Mathematics 2, page 1. | Ask individual pupils to say random numbers and the rest of the class to point to that number. | Give each pair a set of number cards 0-9 and a small stone. <br> Ask each pair to turn over two cards at a time and put them next to each other. <br> Ask them to find that number on the Hundred square, put the stone on it and read the number. <br> Ask pairs to count up to that number together, pointing to the numbers. | Ask them to start counting on their Hundred square from the smallest number and continue until they reach the greatest. Ask them to repeat this two or three times. |  |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning environment

Week 1
1-100
Day 3

## Learning outcomes

By the end of the lesson, most pupils will be able to:
Tell the time using o'clock and say the time one hour later.

Read and write numbers from
1-100.

## Teaching aids

## Before the lesson:

Have ready a large dummy or real clock, and a clock for each group if possible.

Give each pair a set of place value cards (Tens and Units).

Give each pair bundles of straws or sticks in groups of 10 , and nine single straws or sticks.

15
minutes

Writing numerals up to 100


Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 1
1-100
Day 4
the time one hour earlier.

Identify the number that is greater in a pair of numbers.


## Before the lesson:

Have ready a rope, a wall clock and a cardboard clock for each group.
Read MAN Primary Mathematics 2, page 23.
Have ready the bundles of
Tens and Units for pupils to use if they wish.
Prepare flash cards that say 'is greater than' and 'is more than'.


Set the wail clock to any
o'clock time and ask the pupils to say the time.

Ask: 'What will the time be one hour later?'
Repeat with different times.
Set the time on the wall clock to 1 o'clock.
Move the minute hand slowly back round the clock and explain that you have moved to one hour earlier, so the time is now 12 o'clock.
Give a few different times and ask each group to set their clock to that time and then move it back one hour.

Ask them to tell you the new time.


Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning environment

Week 1
1-100
Day 5

## Ordering numbers to 100

|  | 15 minutes |
| :---: | :---: |
| Learning outcomes | Daily practice |
| By the end of the lesson, most | Group task |
| upils will be able to: | Set the wall clock to any 'o'clock' |
| Using o'clock, say the time one | time, eg: 8 o'clock, 10 o'clo |
| hour earlier or one hour later. | Ask the pupils to say the time. |
| Order numbers up to 100 from lowest to highest. | Give a time and ask the pupils to make the time one hour later or one hour earlier on their clocks. |
| Teaching aids | Ask them to share their answers with the rest of the class. |
| Before the lesson: |  |
| Read MAN Primary Mathematics 2, page 3, II. |  |
| For each pupil have ready one number card with a number between 0 and 100. |  |
| Have ready the bundles of 10 straws and single straws. |  |




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Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 2
Tens and Units
Day 1

## Less than

## Introduction

10 minutes

## Main activity

## Group task

Group the pupils into four and ask them to play the 'Target throw' game.

Ask group members to say whether the number inside/on the bottle top is less than the number on which it landed.

Encourage the pupils to use the Hundred square or the bundles of 10 to help them.

## Ask them to complete

MAN Primary Mathematics
2, page 22 , exercise $B$,
making the smallest number using the number cards 0-9.

## Plenary

## Group task

Ask the pupils to move
around the space in
the classroom, or outside if there is no space.
Shout 'Freeze!' and ask everyone to freeze in the shape of a number of their choice, from 0-9.

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 2
Tens and Units
Day 2

## Less than



By the end of the lesson, most pupils will be able to:
Recognise half past on the clock.
Compare numbers using the terms 'greater than', 'less than' and 'equal to' another number.


## Before the lesson:

Have ready cardboard clocks for each group.
Read MAN Primary Mathematics 2, page 23.

Have ready a set of place value cards for each pair.
Have ready flash cards 'less than', 'greater than' and 'is equal to'.

Have ready the bundles of Tens and Units for pupils to use.

15
minutes

## Daily practice

## Group task

Ask the pupils to remind you what they learned yesterday about 'half past'.
Ask them to show you the position of the minute hand for half past.
Show the time 'half past one' and explain that the hour hand has gone past the number 1.

Ask them to make the time on their clocks then show you half past two, half past three, etc in order up until half past 12 .

| $\left\lvert\, \begin{aligned} & 10 \\ & \text { minutes } \end{aligned}\right.$ | 25 minutes | MAN Primary Mathematics 2 |  | 10 minutes |
| :---: | :---: | :---: | :---: | :---: |
| Introduction | Main activity |  |  | Plenary |
| Whole class teaching | Pair task |  |  | Whole class teaching |
| Show flash cards of the term 'less than', 'greater than' or 'is equal to' to the pupils. | Ask pupils to find the Hundred square in MAN Primary Mathematics 2, page 1. |  | Ask them to make the number using their place value cards. <br> Repeat, with the | Ask the pupils to move around in the classroom, or outside if there is no space. |
| Ask pupils to explain their meanings by giving examples. | Ask one partner to close their eyes, and without looking, point to a number on their individual Hundred square. |  | partners taking it in turns to choose numbers. <br> Ask each pair to complete | everyone to freeze in the shape of a number of their choice, from 0-99. |
| Ask the pupils to choose two numbers on the |  |  | Ask each pair to complete MAN Primary Mathematics 2, page 23, exercise B, using the Hundred square and the bundles of 10 to help them. | Have a look at some of the best shapes, ask the pupils to identify the number and then play again two or three times. |
| Hundred square and say the appropriate phrase, | Ask them to repeat this so there are two numbers. |  |  |  |
| : '56 is less | Ask th the nu the co eg: if were partne less th | ir partner to write mbers down with rect term selected, e numbers chosen 6 and 42 , the will write ' 36 is an 42'. |  |  |
|  | Ask p partne bundl are co | pils to check their s' work, using s of 10 to see if they rect. |  |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 2
Tens and Units
Day 3

## Counting in Tens

## Introduction

## Whole class teaching

Point to the table on the chalkboard and countdown in Tens, ie: 10, 20, $30 . .$. to 100.
Ask the pupils what patterns they recognise in this column, eg: they all end in 0 , the first number counts up 1, 2, 3, etc.
Explain that this is the 10 times table and count several times in Tens, pointing to the numbers on the Hundred square.
Say that it is important to know how many Tens are in a number.

25
minutes

## Main activity

Group task
Write the number 10 on the chalkboard.

Ask each group to use the bundles of 10 to make the number 20, ie: each group should have two bundles of 10 .
Repeat for all numbers up to 100, so that by the time they reach 100 they should have 10 bundles.

Ask the pupils to tell you what happened each time the number went up by
10, ie: they added a bundle of 10.

Ask each group to try and complete the table on the chalkboard in their exercise books.

## Plenary

## Whole class teaching

Ask the groups to look at their table and tell you anything they can about the numbers.
Table

| Number | Number of bundles of 10 |
| :--- | :--- |
| 10 |  |
| 20 |  |
| 30 |  |
| 40 |  |
| 50 |  |
| 60 |  |
| 70 |  |
| 80 |  |
| 90 |  |
| 100 |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 2
Tens and Units
Day 4

Lesson

## Tens and Units



By the end of the lesson, most pupils will be able to:
Know the difference between half past and o'clock.

Recognise how many Tens and how many Units are in a number.


## Before the lesson:

Have ready cardboard clocks for each group and a large dummy wall clock or real clock.

Have ready a set of place value cards for each pair.
Have ready the bundles of
Tens and Units for pupils to use if they wish.
Read MAN Primary Mathematics
2, page 4.

15
minutes

## Daily practice

## Whole class teaching

Give out clocks to pairs or small groups of pupils.

Ask them to show you, using their clocks, how the minute hand moves through an hour and half an hour.

Show a mixture of half past times and o'clock times to the class and ask them to say the time.
Ask one pupil to come out and say a time for the rest of the class to make on their clocks.

| 10 minutes |  | 25 minutes | MAN Primary Mathematics 2 | 10 minutes | Game |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Introduction |  | Main activity |  | Plenary |  |
| Pair task |  | Pair task |  | Whole class teaching <br> Play the game 'What's the time, Mr Lion?' once or twice, as described in the introduction. |  |
| Count in Tens with the pupils, pointing to the numbers on a Hundred square. | Ask them: <br> 'How many Tens in each number?' <br> 'How many Units in each number?' | Ask pupils to complete MAN Primary Mathematics 2, page 4, using their bundles and making the numbers with the place value cards. |  |  |  |
| Give each pair bundles of Tens and Units. Remind them that the bundles of 10 are called Tens and the single straws are called Units. | Record each answer on the chalkboard as: 2 Tens + 1 Unit, 2 Tens + 2 Units, etc. |  |  |  |  |
| Ask them to make the numbers from 21-29 using the straws. Tell them they can look at the Hundred square to remind them what the number looks like. | Repeat with the numbers 31-39. <br> Call out some numbers from 0-100 and ask the pupils to make those numbers using their place value cards. |  |  |  |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning environment

## Week 2

Tens and Units Day 5

## Tens and Units

## Daily practice

By the end of the lesson, most pupils will be able to:

Say the time on the hour and half hour.

Recognise and write numbers in Tens and Units.

## Teaching aids

## Before the lesson:

Have ready cardboard clocks for each group and a large dummy wall clock or real clock.

Have ready a set of place value cards for each pair.

Have ready the bundles of 10 straws and single straws for pupils to use if they wish.

Read MAN Primary Mathematics
2, page 6.

| 10 minutes | 25 minutes | MAN Primary Mathematics 2 | $\left\lvert\, \begin{aligned} & 10 \\ & \text { minutes } \end{aligned}\right.$ |
| :---: | :---: | :---: | :---: |
| Introduction | Main activity |  | Plena |
| Whole class teaching | Individual task |  | Whole |
| Lay the number cards from 0-99 face down on the table. | Ask pupils to complete the questions in MAN Primary Mathematics 2, page 6, exercise B in their exercise books, using bundles of Tens and Units. Pairs will have to share the straws. |  | Check through the answers together as a whole class. If pupils have any questions or make mistakes, support them and explain the answers. |
| Ask two pupils to come out, choose one card each and make a number. |  |  |  |
| Ask the class to make that number using their bundles of Tens and Units. |  |  |  |
| Ask them to tell you how many Tens and how many Units are in that number. |  |  |  |
| Ask them to use their place value cards to make the number. |  |  |  |

Week
3
Shapes


Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

## Recognising 3D shapes

| 10 minutes | $\left\lvert\, \begin{aligned} & 25 \\ & \text { minutes } \end{aligned}\right.$ | 10 minutes |
| :---: | :---: | :---: |
| Introduction | Main activity | Plenary |
| Whole class teaching | Group task | Whole class teaching |
| Show the class the objects you have collected, asking them the names of their shapes as you do so. | Ask pupils to go outside the classroom and look for different shapes within the school compound. | Ask the pupils to tell you examples of objects at home that are cuboids and cubes. |
| Ask them to discuss, then tell you about, the differences between the shapes. | Ask them to draw and label the examples they have found in their exercise book. | Ask them to bring in different 3D shapes from home, eg: a cuboid food carton. |
| Make sure they know the difference between a cube and a cuboid, ie: A cuboid has opposite faces that are equal in size. The faces of a cube are all equal in size. |  |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

## Week 3

Shapes
Day 2

Lesson

## Sorting shapes



Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 3
Shapes
Day 3

## Edges and corners

## Learning outcomes

By the end of the lesson, most pupils will be able to:
Identity and count the edges and corners of a cuboid and cube.

Recognise objects at home that are cuboids and cubes.

Identify the value of each digit in a two-digit number.

## Teaching aids

Have ready number cards 0-9 for each group of four pupils.

Have ready balls, boxes, tins, etc.
Read MAN Primary Mathematics
2, page 147.

## Before the lesson:

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## Daily practice

## Whole class teaching

Count in 2 s and 5 s .
Give each group a set of number cards 0-9.

Ask each group member to pick a card.
Ask them to make as many two-digit numbers as possible using their cards and record them in their exercise books.

Ask them to record how many Tens and how many Units are in each number they have made by writing, eg: 5 Tens + 2 Units.

| 10 minutes | 25 minutes | MAN Primary Mathematics 2 |  | 10 minutes |
| :---: | :---: | :---: | :---: | :---: |
| Introduction | Main activity |  |  | Plenary |
| Whole class teaching | Individual task |  | Pair task | Group task |
| Ask the pupils to show the objects they collected on Day 2. | Give the pupils nine small counters each. |  | Ask the pupils to compare work and see if they have the same answers. | Take the pupils outside or find a space in the classroom. |
| Ask them to run their fingers along where two sides of the shape meet and explain that these are called the edges. | Ask the pupils to complete MAN Primary Mathematics 2, page 147, unit 2 by using their counters to identify the answers instead of a tick. |  |  | Ask them to stand in groups of four. <br> Call out the name of a shape and ask them to make that shape as |
| Ask the pupils to count the edges of their shape. | Ask the pupils to copy and shade the shapes that are the same. |  |  | a group. |
| Ask the following questions: 'What is your shape?' |  |  |  |  |
| 'How many edges does it have?' |  |  |  |  |
| Repeat the above activity for the corners of the shapes. |  |  |  |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 3
Shapes
Day 4

## Edges and corners

## Learning outcomes <br> By the end of the lesson, most pupils will be able to: <br> Count in $2 \mathrm{~s}, 5 \mathrm{~s}$ and 10 s . <br> Identify and name 3D objects and explain the features of them. <br> Identify two-dimensional (2D) shapes. <br> Teaching aids

## Before the lesson:

Collect balls, milk tins, etc,
to demonstrate different
3D shapes.
Read MAN Primary Mathematics
2, page 150, exercise A.

## Daily practice

## Whole class teaching

Count in $2 \mathrm{~s}, 5$ s and 10 s to 100.
Give the pupils the number 25 and ask them to write down anything they know about that number, eg: a sum that makes that number, how it expands into Tens and Units, it's Christmas Day when it comes in December, etc.

| 10 minutes | 25 <br> minutes | MAN Primary Mathematics 2 |  | 10 minutes |
| :---: | :---: | :---: | :---: | :---: |
| Introduction | Main activity |  |  | Plenary |
| Whole class teaching | Individual task |  |  | Whole class teaching |
| Hide a selection of 3D shapes. | Ask pupils to copy the shapes in MAN Primary Mathematics 2, page 150, exercise A into their exercise books, making sure that each shape they draw has the correct number of edges and corners. |  | Ask them to count the corners on each shape and say how many corners there are. | Ask the pupils if they can tell you how many corners |
| Tell the class you want them to guess the shape you are thinking of. |  |  | and edges different shapes in the classroom have, eg: the whole room, the windows, the desks. |
| Tell them some features of the shape, eg: if you are thinking of a sphere you may say: 'It has no corners, it has no edges...' |  |  | Ask them to put spots on the shapes with three corners, stripes on the shapes with four corners and shade the shapes with no corners. | Ask them if they can tell you what shape the classroom is and how they know. |
| Repeat this for a different 3D shape. |  |  | Ask them to tell you which shapes have four corners, three corners and no corners. | Tell them to imagine that the classroom had no corners or edges, then ask: |
| Invite a pupil to the front of the class to give clues for a hidden shape. |  |  | 'What shape would it be?' (A sphere, like a ball.) |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

## Week 3

Shapes
Day 5

## Curves and straight lines

Lesson

By the end of the lesson, most pupils will be able to:
Identify the number of Tens and Units in a number.

Identify curves and straight lines.


Before the lesson:
Have ready Tens and Units place value cards and bundles of Tens and Units for the pupils.
Make a shape chart for each group by drawing a triangle, a rectangle, a circle and a square on the back of a calendar. Have ready a bottle top or similar object for each group to throw at their chart.

Make two signs: 'curves' and 'straight lines'.


15
minutes

Daily practice

Whole class teaching
Call out numbers at random and ask the pupils to work out how many Tens and Units they have.
Ask them to show you the number using the place value cards.
Ask them to make the number using bundles of straws.

Repeat with different numbers.

| 10 minutes | 25 <br> minutes |  |  |
| :---: | :---: | :---: | :---: |
| Introduction | Main activity |  |  |
| Whole class teaching |  | Group task |  |
| Show the pupils the shapes in turn and ask them the following questions: <br> 'What's the name of the shape?' | Ask two pupils to come out and stand either side of the room holding the signs: curves and straight lines. | Give a chart to each group and ask them to put the chart on the floor next to their table. <br> Explain that they should | When they have each had two turns, ask them to count the number of small shapes they have drawn and write the number inside the large shape. |
| 'How many sides does it have?' | Ask the rest of the class to look at | take it in turns to throw the bottle top and try and | Ask each group to tell you how many times the bottle top fell on each shape. |
| 'Are the sides straight or curved?' | the shapes and say where each should go. | make it land on a shape. <br> Every time the bottle top |  |
|  | If a shape has both curves and straight lines, ask them where they think it should go. | lands on a shape, they should draw a small shape inside the large one. <br> Listen to make sure that they are using the correct names for the shapes. |  |

10
minutes

Plenary

Whole class teaching
Ask each pupil to think of one thing they have learned about shapes over the past few days.
Ask individual pupils to share their ideas with you.

Week<br>4<br>Addition


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目
87
addition adding plus sum
Hundred square
Tens
Units
expanding

During the lesson, walk round the classroom and ask questions to see if the pupils clearly understand what you have taught them. If not, help them to understand by explaining the idea to them again, or asking other pupils to help them. You may need to use some different examples of the idea.

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning environment

Week 4 Addition Day 1

## Addition using Hundred squares

| 10 minutes |  | 25 minutes | MAN Primary Mathematics 2 | $\left\lvert\, \begin{aligned} & 10 \\ & \text { minutes } \end{aligned}\right.$ |
| :---: | :---: | :---: | :---: | :---: |
| Introduction |  | Main activity |  | Plenary |
| Whole class teaching |  | Indivi | ual task | Whole class teaching |
| Ask the pupils to discuss the best way to answer the following question using the Hundred square: $13+26=$ | Point to the number 26 on the large Hundred square on the chalkboard and ask each pupil to point to 26 on their own | Ask th <br> compl <br> Mathe <br> questi <br> a Hun | pupils to te MAN Primary matics 2, page 55, ns 5-10, using red square. | Check the answers together as a whole class. |
| Ask them to tell you their ideas. | Hundred square. <br> Ask them to make 13 |  |  |  |
| Tell them that they should start with the largest number and add on the smallest number. | jumps on their Hundred <br> square with you and tell you which number they land on. <br> After you have finished |  |  |  |
| Ask them: 'Which number is largest?' | counting you should be pointing to the number 39 . Write this as the answer. |  |  |  |
|  | Repeat for the following sums: $\begin{aligned} & 12+24= \\ & 29+11= \\ & 16+33= \\ & 25+19= \end{aligned}$ |  |  |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 4
Addition
Day 2

## Lesson

title

Multiples of 10

| Learning outcomes | Daily practice |
| :--- | :--- |
| By the end of the lesson, most <br> pupils will be able to: | Whole class teaching |
| Identify Tens and Units. | Take the class outside and ask |
| them to stand in groups of 10. |  |

## Introduction

Whole class teaching
Ask a pupil to point to any number on the large Hundred square.

Ask them to look at this sum and tell you how to use their Hundred square to answer it:
$3+10+10+10+10+10+$
$10+10+10=$
Each time they add 10, put a chalk mark on the number they land on, so the pupils can clearly see the pattern they
have made.
Ask the rest of the pupils to follow, using the Hundred square in MAN Primary Mathematics 2, page 1.

25
minutes
MAN Primary Mathematics 2

## Main activity

## Pair task

Ask the pupils to choose a number under 20 and write it in their exercise book.

Ask them to continue to add 10 until they get to the end of the Hundred square, eg: 9, 19, 29, 39, 49, 59, 69, 79, 89, 99.

Ask them to write what they are doing as a sum, eg:
$9+10=19$
$19+10=29$
$29+10=39$, etc.
Ask them to repeat this
five times, starting
from different numbers each time.

## Plenary

Whole class teaching
Ask the pupils to tell
you anything interesting
about the sums and their answers.

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 4
Addition
Day 3

## Expanding Tens



| 10 minutes |  | 25 minutes | $\left\|\begin{array}{l\|l}10 \\ \text { minutes }\end{array}\right\| \begin{aligned} & \text { Game }\end{aligned}$ |
| :---: | :---: | :---: | :---: |
| Introduction |  | Main activity | Plenary |
| Whole class teaching |  | Pair task | Whole class teaching |
| Ask the pupils to tell you how to count in Tens using the Hundred square, ie: move down the columns of the Hundred square. | Write this as a sum on the chalkboard, ie: $5+10+10+10=$ <br> Point to the number 5 and count 30 moving down | Write the following sums on the chalkboard for the pupils to complete in pairs in the same way as above: | Think of a number and give the pupils statements to help them guess the number you are thinking of, eg: 'The number I am thinking |
| Explain that you are going to do the following sum, using the Hundred square: $5+30=$ | the column, counting as you do it, 5 add 10, add 10, add 10. | $\begin{aligned} & 2+30= \\ & 7+30= \\ & 5+40= \end{aligned}$ | of is: <br> Greater than 10 <br> Less than 20 <br> Contains the number 4 |
| Ask the pupils: 'How many Tens are there in 30?' | Ask the pupils to tell you which number you have landed on, ie: 35. |  | Lies between 15 and 13.' <br> Repeat twice with different numbers. |
|  | Write the answer on the chalkboard: $5+30=35$ |  |  |
|  | Repeat the process for the following sums: $\begin{aligned} & 8+30= \\ & 2+30= \\ & 4+20= \end{aligned}$ |  |  |

Numeracy
lesson plans Primary 2

## Term 1

Creating an
effective learning environment

Week 4 Addition Day 4
(

## Adding in Tens

## Learning outcomes

By the end of the lesson, most pupils will be able to:
Count in Tens.
Expand a number into Tens and Units.

Add a two-digit number to
a single-digit number.

Teaching aids

Before the lesson:
Read MAN Primary Mathematics
2, page 61.

| 10 minutes | 25 minutes | MAN Primary <br> Mathematics 2 | 10 minutes | Game |
| :---: | :---: | :---: | :---: | :---: |
| Introduction | Main activity |  | Plenary |  |
| Whole class teaching | Pair task |  | Whole class teaching |  |
| Ask the pupils to look at their work from yesterday and tell you how they added $5+30$, ie: they broke 30 into 3 Tens and used the Hundred square to count. | Ask the pupils to complete MAN Primary Mathematics 2, page 61, exercise K, questions 1-10, using the above method. |  | Play 'The number I am thinking of' game again. This time, after one turn, ask a pupil to lead the game. |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

Week 4
Addition
Day 5

Lesson

## Target throw game

Learning outcomes

By the end of the lesson, most pupils will be able to:
Count in Tens.
Add two numbers together.

## Teaching aids

## Before the lesson:

Prepare a 'Target throw' chart for each group according to the instructions in the introduction and the diagram opposite.
Prepare one bottle top for each pupil, labelled with singledigit numbers, including 0.

## Daily practice

## Whole class teaching

Give out the numbered
bottle tops.
Ask the pupils to find a partner and stand with them to make a two-digit number with their bottle tops.

Ask them to call out their number and express it as Tens and Units, eg: 37 is 3 Tens and 7 Units.

Repeat, asking them to make different numbers each time.

Ask them to find another pair and make as many numbers, between 10 and 99, as they can from the numbers on their bottle tops.

Ask them to write those numbers as Tens and Units.

| 10 <br> minutes | 25 Game <br> minutes  | MAN Primary Mathematics 2 | $\begin{aligned} & 10 \\ & \text { minutes } \end{aligned}$ |  |
| :---: | :---: | :---: | :---: | :---: |
| Introduction | Main activity |  | Plenary |  |
| Whole class teaching | Group task |  | Whole class teaching |  |
| Explain the rules of the 'Target throw' game. | Divide the pupils into small groups and give each a copy of the charts you prepared and a set of bottle tops from 1-9. <br> Ask each player to throw their bottle top on to the chart. <br> Ask them to write a sum to add the number it landed on to the number on the bottle top, eg: $7+30=$ <br> Ask them to expand the two-digit number and rewrite the sum in that form, eg: $7+10+10+10=$ | Encourage the pupils to use the Hundred square in MAN Primary Mathematics 2, page 1 to help them find the answer. <br> Ask them to continue playing until everyone has had a turn. | Ask the pupils to tell the class how they managed to add the two numbers and how they knew they had the correct answer. | Diagram |

Week
5
Money


Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning environment

## Week 5

Money
Day 1

Introducing
Naira

| Learning outcomes |
| :--- |
| By the end of the lesson, most |
| pupils will be able to: |
| Add together two numbers using |
| a Hundred square. |
| Identify Nigerian notes. |
| Teaching aids |
| Before the lesson: |
| Have ready a selection of real |
| Nigerian coins and notes. |

Have ready a selection of real Nigerian coins and notes.

## Daily practice

## Whole class teaching

Ask the pupils to tell you one thing they learned the previous week about adding 10 to a number.
Ask pupils to find the Hundred square in MAN Primary Mathematics 2, page 1.
Call out any numbers, one at a time, and ask the class to use the Hundred square to add 10.
After each number ask a pupil to tell you which number they have landed on.

Ask them to play the same game in pairs, with one pupil calling out a number and the other adding 10.
Ask them to play again, this time adding 5 each time.

| 10 minutes |  | 25 minutes | 10 minutes |
| :---: | :---: | :---: | :---: |
| Introduction |  | Main activity | Plenary |
| Whole class teaching |  | Individual task | Whole class teaching |
| Ask the pupils to mention the names of coins or notes that they know. | Ask the pupil to tell you the amount each one is worth. | Ask the pupils to look at the Naira and Kobo you have brought in and choose | Show different notes and coins and ask the pupils: |
| Show the real coins and notes to the pupils by displaying them or passing | Ask if anyone knows what the symbols $\mathbf{K}$ and $\mathbb{N}$ stand for (Kobo and Naira). | three of each to draw in their exercise books. <br> Ask them to draw a | 'How much is it worth?' <br> 'What could you buy with this note?' |
| them round the class. | Ask them: <br> 'Which note is worth the most?' | picture of one thing they think they could buy with each note or coin they have drawn. |  |
|  | 'Which note is worth the least?' |  |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning environment

## Week 5

Money
Day 2

Lesson
title

## Nigerian <br> bank notes



By the end of the lesson, most pupils will be able to:
Add together a two-digit number and a single-digit number.

Know the amount of each bank note.

Understand the meaning of
the symbol ' $N$ '.

Teaching aids

Before the lesson:
Have ready a selection of real Naira and Kobo.

Read MAN Primary Mathematics 2, page 111.

15
minutes

Daily practice

Whole class teaching
Ask the pupils to complete
the following sums in their exercise books by expanding the twodigit number where necessary:
$1+10=$
$2+20=$
$3+30=$
$4+40=$
$5+50=$
$6+60=$
$7+70=$
$8+80=$
$9+90=$
Ask them to find all the answers on the Hundred square.

Ask the pupils if anyone can
tell you something interesting they have found out.

| 10 MAN Primary <br> minutes Mathematics 2 |  | 25 minutes | 10 minutes | Game |
| :---: | :---: | :---: | :---: | :---: |
| Introduction |  | Main activity | Plenary |  |
| Whole class teaching |  | Individual task | Whole class teaching |  |
| Ask pupils to open MAN Primary Mathematics 2, page 111 and look at the Naira notes. | Ask them which notes they would use if someone charged them 12 Naira for something from a shop. | Give individuals a list of amounts and ask them to write which notes they would use to make | Play th numbe asking to think | game 'The I am thinking of is', one of the pupils of a number |
| Ask them to tell you which notes they would use to pay for something costing 10 Naira. | Explain that as there isn't a 12 Naira note they would need to use a combination of notes: | $\begin{aligned} & \text { N15 }= \\ & \text { N25 }= \\ & \text { N50 }= \\ & \text { N60 }= \end{aligned}$ | to gues | st of the class |
| Say different prices and ask individual pupils to show the note they would use for that amount. | two 5 Naira notes and one 2 Naira note. | $\begin{aligned} & \text { N70 }= \\ & \text { N80 }= \\ & \text { N90 }= \end{aligned}$ <br> Ask the pupils to tell |  |  |
| Explain that sometimes people write ' N ' instead of 'Naira', eg: in prices displayed in shops. |  | you answers. |  |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning environment

## Week 5

Money
Day 3

## A new Naira note

## Learning outcomes

By the end of the lesson, most pupils will be able to:
Expand a two-digit number.
Add and subtract sums of money.
Recognise differences and
similarities between Naira notes.

## Teaching aids

## Before the lesson:

Have ready a selection of Naira notes below 100 Naira. These can be real or paper copies.
Read MAN Primary Mathematics
2, page 6, exercise B and page 111.

## ,

## Daily practice

## Whole class teaching

Ask the pupils to complete MAN Primary Mathematics 2, page 6, exercise B.

| 10 minutes | 25 <br> minutes$\|$ Game | MAN Primary Mathematics 2 |  | 10 minutes |
| :---: | :---: | :---: | :---: | :---: |
| Introduction | Main activity |  |  | Plenary |
| Whole class teaching | Whole class teaching |  | Individual task | Whole class teaching |
| Show the pupils the notes you have brought in and check that they all know the value of each note. | Sit all the pupils in a circle, give one pupil three or four Naira notes and spread the rest in the middle of the circle. <br> Ask that pupil to count the money and say, eg: 'I have 25 Naira, I'm going to take away a 5 Naira note, so I'm going to give you 20 Naira'. <br> Ask them to put the note they have taken away into the middle of the circle and pass the notes they have left to the next pupil. <br> Ask the next pupil to do the same thing but change the amount they add or take away. | If they want to add, they should take the note from the middle of the circle so they can hand the correct amount to the next person. <br> Continue until it has gone all the way round the circle. <br> Ask the pupils to compare the Naira notes in MAN Primary Mathematics 2, page 111 and answer the following questions: 'What pictures, numbers and patterns are the same and which are different on the notes?' | Tell the pupils that they should imagine that they have been asked to design a N25 note and to think about what it might look like, using the following questions to help them: <br> 'What colour would it be?' <br> 'Whose picture might it have on it?' <br> 'Where would they write the N25 to show people how much the note is worth?' <br> 'What else would be written on it?' <br> Ask pupils to draw their design in their exercise book. | Ask the pupils to share their pictures with the class and explain why they chose to draw it in that way. |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

## Week 5

Money
Day 4

## Adding money together

(

| 10 minutes |  | 25 minutes | 10 minutes | Game |
| :---: | :---: | :---: | :---: | :---: |
| Introduction |  | Main activity | Plenary |  |
| Whole class teaching |  | Group task | Whole class teaching <br> Play the money game you played for the main activity on Day 3. |  |
| Think of a Naira note or coin and tell the pupils you will describe it for them to guess. | Repeat, this time with a pupil describing a note. They may need the notes near them to help them, but they must try not to let the class know which one they are looking at. | Ask each group to find five objects, put them on the table and agree a price less than N20 for each object. |  |  |
| Describe the note to the pupil. Start with describing the colour and then the features. |  | Ask them to take it in turns to shop for one or more items. |  |  |
| Ask individual pupils to raise their hand when they know which note you are thinking of. |  | Ask the rest of the group to write down the sum they would need to do to work out how much they cost altogether, eg: |  |  |
| Choose one to give you the answer. |  | $\mathrm{N} 20+\mathrm{N} 5=$ |  |  |
|  |  | Ask them to complete the sum and identify the notes they would need to use to buy the items (a N20 note and a N5 note). |  |  |

Numeracy
lesson plans
Primary 2

## Term 1

Creating an
effective learning
environment

## Week 5

Money
Day 5

## Shopping for two items

| Learning outcomes | Daily practice |
| :---: | :---: |
| By the end of the lesson, most | Pair task |
| pupils will be able to: | Ask the pupils to complete |
| Add two-digit numbers together. | MAN Primary Mathematics 2, page |
| Find the cost of two items. | 61, exercise J, questions 3-10. |
| Teaching aids | Move round the class and see who has understood the work of the last two weeks. |
| Before the lesson: |  |
| Read MAN Primary Mathematics 2, page 61, exercise J. |  |
| Have ready a selection of coins and notes below 100 Naira. |  |
| Label a selection of items with the following prices: |  |
| N20 |  |
| N30 |  |
| N50 |  |
| N70 |  |
| N10 |  |
| N40 |  |
| N60 |  |


| 10 minutes | 25 minutes |  | 10 minutes |
| :---: | :---: | :---: | :---: |
| Introduction | Main activity |  | Plenary |
| Whole class teaching | Whole class teaching |  | Whole class teaching |
| Ask the pupils if they can tell you reasons why they might need to add notes together. | Ask someone to come out, choose two items and hold them with their labels showing so the | Ask someone to tell you the answer and explain how they worked it out. <br> Repeat four or five | Ask the pupils to say one thing they have learned about money this week. |
| Write down their ideas on the chalkboard. | class can see. <br> Ask pupils to draw the two items in their book with the price labels. <br> Ask them to work out how much the two items cost altogether. <br> Tell them that they can draw a number line or use a Hundred square to help them with the numbers. | times with different pairs of items. |  |

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