

Kwara State Government

Numeracy
lesson plans
Primary 3
Term 1
Organising the
classroom for
effective learning

## Weeks

6-10

## Numeracy lesson plans Primary 3 Term 1 Organising the classroom for effective learning

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


## Introduction

| Teaching and learning processes in Kwara | Teachers in Kwara have experienced | As teaching manuals, the lesson plans have | I therefore appreciate the contribution of |
| :---: | :---: | :---: | :---: |
| State have improved as | tremendous professional | been designed to provide | the UK Department for |
| a result of the introduction | improvements through | a step-by-step guide | International Development |
| of the new lesson plans developed by the State | training and refresher programmes on the new | in the teaching of literacy and numeracy. The | (DFID), through ESSPIN, in designing, |
| School Improvement | lesson plans, facilitated | lesson plans promote | editing and producing |
| Team (SSIT). The recent | by SSIT and school | more collaborative, | the lesson plans. |
| improvement in the quality of education in Kwara | support officers (SSOs). | interactive, participatory and reflective learning |  |
| is a direct function of quality teaching. | These lesson plans, designed and edited by Education Sector | to encourage children to become active learners. | Honourable Commissioner for Education and Human |
| Evidence of improved teaching quality includes | Support in Nigeria (ESSPIN), have becom | I am sure that continuous use of these lesson | Kwara State |
| an increase in the number | Kwara teachers' | plans by teachers will |  |
| of pupils completing basic | classroom companion. | raise the standard of |  |
| education and a general |  | our education in Kwara |  |
| improvement in literacy |  | State and also assist |  |
| and numeracy levels. |  | in consolidating the |  |
|  |  | new administration's |  |
|  |  | education reform. |  |

Numeracy lesson plans Primary 3

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\text { Term } 1
$$

Organising the classroom for effective learning

## Introduction

 Organising the classroom for effective learning6-10

Organising the classroom for effective learning

Your classroom is a flexible space. You can change it to suit the learning activities.

Pupils take part in many different activities during each week, eg: games, role plays, circle discussions, group tasks, copying from the chalkboard, using teaching aids, working with a partner, working alone, etc. All these activities need different ways of organising your classroom, eg:
Tables arranged around the edge of the room so there is a space in the middle for games, songs or role play. Pupils can see each other and this helps communication.

Tables arranged in rows so that the pupils can see the chalkboard. This is useful when they need to see something you have written or drawn on the chalkboard.

## Tables arranged in groups.

This helps pupils to talk together and share ideas. They can see each other clearly and can easily work with one set of number cards or one sheet of paper to produce a joint end product.
Each time you start the day you should think about the activities you need to do and decide if your classroom needs to be arranged differently. Work with the other teachers in your school and cluster, your head teacher and SSO to discuss different ways of arranging your classroom for learning.

Group and pair work

Group and pair work is the basis of a learner-centred classroom, they allow pupils to work together:

To discuss, solve problems or to play learning games.
To find their own way in their learning.
The main benefits of group and pair work are:
More pupils can be active at one time. Pupils can talk and listen to each other, or work on a problem together.
The teacher can walk around the room to monitor what groups and individuals are doing, and can stop with each group to help them with their task. Spending more time with the pupils helps teachers better understand what individual pupils know and can do.

Group work is also one of the best ways of teaching social skills to pupils. While working in groups, pupils are learning a variety of skills including:
Co-operation.
Taking turns.
Listening to others.
Sharing.
Working harmoniously with others.
Solving problems.
The development of these life skills is a major reason why group and pair work is undertaken in most modern classrooms.

## Numeracy lesson plans <br> Primary 3 <br> Term 1 <br> Organising the classroom for effective learning <br> <br> \title{ Introduction <br> <br> \title{ Introduction <br> <br> <br> Essential low-cost <br> <br> <br> Essential low-cost or free teaching aids 

} or free teaching aids}}

## Weeks

6-10

Ask the pupils help you collect together as many bottle tops, small sticks and small stones as possible. Put each set of counters into a jar to keep in the classroom so they are available when the pupils need them.

Halves and quarters

Cut out two identical
circles, one plain and one coloured.

Draw a line from the centre of each to the edge of the circle.

Cut along this line on both circles.
Now slide one circle on top of the other through the slits.
You are now able to
rotate the circles on top of each other to show:
$\frac{1}{2} \frac{1}{4} \frac{2}{4}$
The pupils could make their own.

Equivalent fraction game

Make a set of cards to play a matching game with the pupils. Write one of the following fractions on each card:
$\begin{array}{llllllll}1 & 2 & 1 & 2 & 4 & 4 & 2 & 3\end{array}$ $\frac{1}{2} \frac{2}{4} \frac{1}{3} \frac{2}{6} \frac{4}{6} \frac{4}{4} \frac{2}{3} \frac{3}{3}$

Ask the pupils to place the cards face down on the table and turn two cards over. If the fractions are equivalent they can take the pair. If not, they turn them over again and the next person tries to find a pair.
Use this game with pupils who finish their work quickly during and after Week 7.

## Building a shop

Collect about 20 items and put them on a table in the corner of your classroom.
Label them with different prices, according to what the pupils are learning.
Encourage pupils to draw pictures of things they can find in the shop, along with their price, and stick or hang these on the wall around the 'shop'.
Make a label saying 'shop' and display it so the pupils can see.
Have a box with some Nigerian 'money' made out of cardboard.

Encourage the pupils to go shopping, buying items and handing over the correct money.
This will develop their language skills as well as their understanding of money.

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## Weeks

6-10

Practise multiplication tables

It is very important that pupils know their multiplication tables from 0 -10. If you ask them a random multiplication question they should be able to answer it instantly. In order for them to do this you will need to play lots of games with them.

## Asking questions

Spend 5 minutes at the start or end of lessons asking pupils random multiplication questions. Ask them to raise their hand when they know the answer.

## Quick multiplication

Multiplication snap

Multiplying by 11
Use a quick way to answer the question $3 \times 11=$
Write down the number that is being multiplied by 11 .
Then write the same number again next to it.
$3 \rightarrow 33$
$3 \times 11=33$
This will work for any number up to 10, eg: $4 \times 11=44$

Multiplying by 2 and 4

To multiply by 2 double
the number, eg:
$4 \rightarrow 8$
you know how to double
a number, multiplying by
4 is easy.
Double a number and
then double it again, eg:
$4 \rightarrow 8 \rightarrow 16$
When you multiply by 2 or 4 the answer will always be an even number.

Make two sets of cards one set with multiplication sums on them and one set with the answers.
Give one pupil the sum cards and the other the answer cards.

Ask each pupil to put their top card down on the table in front of them. If a question and an answer match, the pupils say snap' and put their hand on their pile of cards.
The first pupil to put their hand down collects all the cards on the table.

The game continues until one pupil has all the cards and the other has none.

Circle multiplication

Multiplying by 9

Use your fingers to answer the question $9 \times 3=$
Hold both hands in front of you with your palms facing you.
Bend down the third finger, counting from your thumb, on your left hand.
You now have 2 fingers to the left of the bent finger and 7 to the right of the bent finger.

Put the two numbers together and it will give you 27.
$9 \times 3=27$
Try this technique to multiply another number by 9 .



## Term 1

Organising the classroom for effective learning

## Week 6

Fractions
Day 1

Fractions of shapes


By the end of the lesson, most pupils will be able to:
Count in Hundreds.
Find fractions of a concrete object.
Teaching aids

## Before the lesson:

Collect plenty of ground nuts, kola nuts and sugar cane pieces.
Have ready sheets of newspaper, one for each pupil.

Read MAN Primary Mathematics
3, pages 28 and 31, exercise F.

## Daily practice

## Whole class teaching

Ask the pupils to count in Tens to 100.

Ask them to count in Hundreds to 1,000, using MAN Primary Mathematics 3, page 14 to help them.
Ask the class the following questions, using the table to help them if they want: 'Which number is 100 more than 400?
'Which number is 100 more than 600?

| $\begin{array}{\|l\|l} 10 \\ \text { minutes } \end{array}$ | 25 minutes | MAN Primary Mathematics 3 |  | 10 minutes |
| :---: | :---: | :---: | :---: | :---: |
| Introduction | Main activity |  |  | Plenary |
| Whole class teaching | Group task |  | Individual task | Whole class teaching |
| Give each pupil a sheet of newspaper. | Give each group a selection of the materials prepared above. |  | Ask the pupils to look at MAN Primary Mathematics | Ask the pupils to tell you anything they can remember |
| Ask them to fold it into four |  |  | 3 page 31, exercise F. | about fractions. |
| equal parts. | Read through MAN Primary Mathematics 3 page 28 with the pupils. |  | Ask them to copy the |  |
| Ask them to shade one of the segments. |  |  | examples and shade the correct fraction. |  |
| Write the fraction on the chalkboard: $\frac{1}{4}$ | Ask the pupils to use the objects you brought to demonstrate the fractions as you read. |  | Tell them to write the fraction next to the shaded shape. |  |
| Now ask them to shade another quarter. Ask the class how you would write that fraction: $\frac{2}{4}$ |  |  |  |  |
| Repeat until the whole shape is shaded and the fraction written is $\frac{4}{4}$ |  |  |  |  |

Numeracy
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Primary 3

## Term 1

Organising the
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## Week 6

Fractions
Day 2

Fractions of shapes

15
minutes


By the end of the lesson, most pupils will be able to:
Add on in Hundreds.
Find a third of a shape.

Teaching aids

Before the lesson:
Draw a triangle on the chalkboard.
Have a piece of newspaper ready for each pair.

## Daily practice

## Whole class teaching

Draw a number line with the pupils which shows jumps of 100, up to 1,000, as shown opposite below.

Ask them about 10 questions to answer using the number line, eg:
'How many is 100 add 300?'
'What do you get if you add 500 and 200?'

| 10 minutes | 25 minutes |  | 10 minutes |
| :---: | :---: | :---: | :---: |
| Introduction | Main activity |  | Plenary |
| Whole class teaching | Whole class teaching |  | Whole class teaching |
| Divide the triangle into three equal parts. | Ask the class to draw a triangle in their books and divide it into three equal parts. | Repeat by shading all three parts and ask them what $\frac{3}{3}$ is equal to. | Hold up a piece of newspaper, fold it into four, |
| Ask the pupils how many parts you have divided the |  |  | and ask the class: <br> 'What fraction is each |
| triangle into. | Ask them to shade one of the parts and write the fraction. | Give each pair a piece of newspaper and ask them to fold it into three equal parts. | section?' |
| Shade one part of the triangle and ask pupils |  |  | 'What fraction is two sections?' |
| to tell you what fraction of the triangle they have shaded. | Ask them to draw another triangle and split it into three parts, this time shading two parts and writing the fraction. | Ask them to number each section, from 1 to 3. | 'What fraction is three sections?' <br> 'What fraction is four |
| Explain that one part out of three has been shaded, |  | Ask: 'What fraction is each section?' | sections?' <br> Repeat, but this time fold |
| which can be written as the fraction $\frac{1}{3}$ |  | Explain to the class that each section is $\frac{1}{3}$ | the newspaper into six. |
| Daily practice number line |  |  |  |
|  | 6007008009001,000 |  |  |

## Term 1

Organising the classroom for effective learning

## Week 6

Fractions
Day 3

## Fractions of groups



By the end of the lesson, most pupils will be able to:
$\overline{\text { Add on in Hundreds, from different }}$ starting points.
Find fractions of amounts.

## Teaching aids

Before the lesson:
Read MAN Primary Mathematics
3 , pages $33-34$, unit 5 .
Collect enough counters for each pupil to have eight.

15
minutes

25
minutes
MAN Primary Mathematics 3

## Main activity

## Group task

Ask the pupils to look at MAN Primary Mathematics 3 page 34, exercise J.

Read the questions through together.

Ask the pupils to use their counters to divide the numbers into the correct equal parts.
Ask them to write the sum and answer in their exercise books.

Walk around each
of the groups to check
they understand.

## Plenary

## Whole class teaching

Select 10 pupils to come to the front of the class. Ask them to divide into half,
Count how many pupils are in one half and write on the chalkboard: 1 of $10=5$ 2

Select 12 different pupils to come to the front of the class.

Ask them to divide into quarters.
Count how many pupils are in one quarter and write on the chalkboard: 1 of $12=3$
Daily practice number line

$$
\overbrace{26 \quad 126 \quad 226 \quad 326 \quad 426 \quad 526}^{+100+100+100+100+100+100+100+100+100}
$$

## Term 1

Organising the
classroom for effective learning

## Week 6

Fractions
Day 4

## Fractions of amounts



| 10 minutes | 25 minutes | MAN Primary Mathematics 3 | 10 minutes |
| :---: | :---: | :---: | :---: |
| Introduction | Main activity |  | Plenary |
| Whole class teaching | Group task |  | Whole class teaching |
| Give each pupil 12 counting objects and ask them to divide them into quarters, or four groups. | Ask the pupils to look at MAN Primary Mathematics 3, page 35, exercises K and L . |  | Select nine pupils to come to the front of the class. <br> Ask them to divide |
| Ask how many counters they have in each group. | Ask the pupils to use their counters to help them find the fractions. |  | into thirds. <br> Count how many pupils |
| Write: $\frac{1}{4}$ of $12=3$ |  |  | are in one third and write on the chalkboard: |
| Give each pupil 20 counting objects and ask them to | Walk around each of the groups to check they understand. |  | $\frac{1}{3} \text { of } 9=3$ |
| divide them into quarters or four groups. |  |  | Select eight different pupils to come to the front |
| Ask how many counters in each group. |  |  | Ask them to divide |
| Write: $\frac{1}{4}$ of $20=5$ |  |  | into quarters. <br> Count how many pupils are in one quarter and write on the chalkboard: 1 of $8=2$ 4 |

## Term 1

Organising the
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## Week 6

Fractions
Day 5

## Fractions of amounts

| Learning outcomes | Daily practice |
| :---: | :---: |
| By the end of the lesson, most | Whole class teaching |
|  | Ask the pupils to add two numbers together using a number line, eg: |
| $\overline{\text { Add three-digit numbers together. }}$ |  |
| Find fractions of amounts. |  |
|  | $\begin{aligned} 258+231 & = \\ 231 & =200+30+1 \end{aligned}$ |
| aching aids | +100 +100 $\underbrace{+30}+1$ |
| Before the lesson: | $258 \quad 358 \quad 458$ |
| Have ready lots of counters for the pupils to use. | Ask them to solve the following |
| Read MAN Primary Mathematics | $324+145=$ |
| 3, page 37, exercises M and N . | $632+257=$ |
|  | Ask pupils to exchange their books and mark each other's work. |


| 10 MAN Primary <br> minutes Mathematics 3 | 25 MAN Primary <br> minutes Mathematics 3 | $\left\lvert\, \begin{aligned} & 10 \\ & \text { minutes } \end{aligned}\right.$ |
| :---: | :---: | :---: |
| Introduction | Main activity | Plenary |
| Whole class teaching | Group task | Whole class teaching |
| Ask the pupils to look at MAN Primary Mathematics 3, page 37, exercise $M$. | Ask pupils to work together in groups to complete MAN Primary Mathematics 3, page 37, exercise N . | Mark the work together as a whole class. <br> If you are given any |
| Give the pupils counters to use and work though questions 1-3 as a whole class. | They must use counters to help them. | If you are given any wrong answers, ask pupils to use counters as you demonstrate the correct answer. |
| Ask the pupils questions to check their understanding, eg: |  |  |
| 'How many equal groups will you split the counters into if you are finding half?' |  |  |
| 'How many equal groups will you split the counters into if you are finding thirds?' |  |  |




## Numeracy

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Week 7
Writing fractions Day 1

## Numerator

 and denominatorPractise the 3 and 4 times tables.
Find the numerator and denominator of a fraction.

## Teaching aids

Before the lesson:
Read MAN Primary Mathematics 3 , page 32 and make sure you understand fractions.


15
minutes Game

## Daily practice

## Whole class teaching

Ask the pupils to stand facing their partner and tell them they are going to clap the 3 times table.

Teach them to follow this clapping pattern:
Tap your hands once on your thighs (whisper the number 1)
Tap your hands once on your stomach (whisper the number 2)
Clap hands together with a partner (say the number 3).

Continue to the number 36 .
Explain that every time they clap hands with their partner they will be saying a number from the 3 times table.
Repeat for the four times table, with a tap on the shoulders for the extra number.

| 10 minutes |  | 25 minutes |  | 10 minutes |
| :---: | :---: | :---: | :---: | :---: |
| Introduction |  | Main activity |  | Plenary |
| Whole class teaching |  | Individual task |  | Whole class teaching <br> Ask five pupils to share what they have learned with the rest of the class. |
| Ask the pupils: 'What is a fraction?' (Part of a whole.) | Ask pupils to colour in one of the four parts. The shaded part is called the numerator. This number is written at the top of the fraction, eg: $\frac{1}{4}$ | Ask pupils to draw a rectangle in their books, <br> Ask them to choose two numbers less than 5. | Ask them to write a fraction to describe their work, eg: if they have divided the rectangle into four equal parts and shaded two parts they have shaded $\frac{2}{4}\left(\text { or } \frac{1}{2}\right)$ <br> of the rectangle. In this case, 2 is the numerator and 4 the denominator. |  |
| Ask pupils to draw a rectangle in their books and divide it into four equal parts. |  | Tell them to write down the largest number they chose as the denominator. |  |  |
| Ask them to count the number of parts. Tell them that the number of parts (4) is referred to as the |  | Ask them to divide their rectangle into that number of parts. |  |  |
| denominator. This number is placed at the bottom of the fraction. |  | Tell pupils to write down the smallest number and shade that number of parts. | Walk around the class and help pupils to label their fractions correctly. |  |
|  |  | Ask them to look at how many parts they have shaded and write that number on the shape. This number is the numerator. | Ask the pupils to repeat with different numbers. |  |

Numeracy
lesson plans
Primary 3

## Term 1

Organising the
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Week 7
Writing fractions
Day 2

## Equivalent fractions



By the end of the lesson, most pupils will be able to:
Practise the 3,4 and 5 times tables.

Identify equivalent fractions.

## Teaching aids

Before the lesson:
Read MAN Primary Mathematics
3 , page 32.
Collect plenty of counters for each pupil to have about six.

15
minutes Game from yesterday with the 3 and 4

Make up a pattern for clapping

Daily practice

## Whole class teaching

Repeat the clapping game times table. the 5 times table.

| 10 MAN Primary <br> minutes Mathematics 3 | 25 minutes | MAN Primary Mathematics 3 | 10 minutes |
| :---: | :---: | :---: | :---: |
| Introduction | Main activity |  | Plenary |
| Whole class teaching | Pair task |  | Whole class teaching |
| Go through MAN Primary Mathematics 3, page 32, Unit 4 with the pupils reminding them which is the denominator and which is the numerator. | Ask pupils to work together to complete MAN Primary Mathematics 3, page 32, exercises $G$ and H , writing the fractions in their exercise books. |  | Go through the answers with the pupils and ask them to check that they are correct. |

## Term 1

Organising the
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Week 7
Writing fractions
Day 3

## Equivalent fractions

## Learning outcomes <br> By the end of the lesson, most pupils will be able to:

Remember their multiplication tables.

Use shaded shapes to write equivalent fractions.

## Teaching aids

## Before the lesson:

Read MAN Primary Mathematics
3 , page 43, exercise G, questions a, d and e.

Have ready 0-9 number cards, one set for each pair of pupils.

## Daily practice

## Pair task

Give each pair a set of 0-9 number cards.
Ask them to place the cards face down on the table.
The first person turns over two cards and multiplies them together, saying the answer aloud. Their partner checks the answer.

Tell pupils to replace the cards and continue taking turns to turn over two cards and multiply the two numbers.


## Term 1

Organising the
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effective learning

Week 7
Writing fractions
Day 4

## Equivalent

 fractions| Learning outcomes | Daily practice |
| :---: | :---: |
| By the end of the lesson, most pupils will be able to: | Whole class teaching |
|  | Ask the pupils to stand in a circle while you stand in the middle with the ball. |
| Quickly recall multiplication sums. |  |
| Find equivalent fractions. |  |
| Teaching aids | Throw the ball to a pupil and at the same time ask a multiplication sum, eg: $2 \times 8$. |
| Before the lesson: | The pupil should answer quickly and throw the ball back to you. |
| Read MAN Primary Mathematics 3, page 40, Exercise B. | Repeat, making sure all pupils have a turn. |
| Have ready or make a ball to throw. | If a pupil doesn't know the answer, they may throw the ball |
| Collect enough newspapers for each group to have one. |  |


| 10 minutes | 25 minutes | MAN Primary Mathematics 3 |  | 10 minutes |
| :---: | :---: | :---: | :---: | :---: |
| Introduction | Main activity |  |  | Plenary |
| Whole class teaching | Pair task |  | Group task | Whole class teaching |
| Write the sign > on the chalkboard and ask the pupils what it means (greater than). | Give each pair two rectangles cut out of newspaper. | Ask them to shade one section of each rectangle and write the fraction for each rectangle in their | Give each group a newspaper and ask them to use newspaper shapes to help them complete | Mark the answers together as a class. |
| Write the sign < and ask the pupils what it means (less than). | rectangle into half and the other into quarters. | exercise books. <br> Ask them to look at their shapes and decide | MAN Primary Mathematics 3, page 40, Exercise B. |  |
| Write the following pairs of numbers on the chalkboard and ask pupils to put the correct sign in between them, eg: |  | which fraction takes up the most sections. <br> Tell them to describe one of the fractions as greater than the other. |  |  |
| $3<7$ |  | Tell them to write this |  |  |
| $12 \square 57$ |  | in their books using |  |  |
| $45 \square 21$ |  | the $>$ sign between the |  |  |
| $63 \square 48$ |  | two fractions. |  |  |

## Term 1

Organising the
classroom for
effective learning

Week 7
Writing fractions
Day 5

## Equivalent fractions

## Learning outcomes

By the end of the lesson, most pupils will be able to:
Remember their multiplication tables.

Find an equivalent fraction.

## Teaching aids

Before the lesson:
Read MAN Primary Mathematics
3 , page 41 and page 43 ,
Exercise E.
Have ready 0-9 number cards, one set for each pair of pupils.

## Daily practice

## Pair task

Give each pair a set of 0-9 number cards.
Ask them to place the cards face down on the table.

The first person should turn over two cards and multiply them together, saying the answer aloud. Their partner should check the answer.

Tell pupils to replace the cards and continue taking turns to turn over two cards and multiply the numbers.

| 10 MAN Primary <br> minutes Mathematics 3 | 25 minutes | MAN Primary <br> Mathematics 3 | 10 minutes |
| :---: | :---: | :---: | :---: |
| Introduction | Main activity |  | Plenary |
| Whole class teaching | Pair task |  | Whole class teaching |
| Ask pupils to look at the fraction diagram in MAN Primary Mathematics 3 , page 41. | Ask pupils to work together in pairs to answer the questions in MAN Primary Mathematics 3 page 43, exercise E. <br> Tell them to use the diagram on page 41 to help them. |  | Ask pupils to tell you something they have learned about fractions over the past two weeks. |
| Ask pupils to put a counter on all the fractions that are equal to $\frac{1}{4}$ |  |  |  |
| Next, ask pupils to put a counter on all fractions equal to $\frac{3}{4}$ |  |  |  |

Week
8
Addition of threedigit numbers

Words/phrases
addition
bridging the Ten expanding Hundreds Tens
Units

Assessment

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.

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Week 8
Addition of three-
digit numbers
Day 1

## Addition of threedigit numbers

15 minutes


Before the lesson:
Have ready a set of 0-9 number cards for each pair.

Read MAN Primary Mathematics 3 , page 56 and make sure you understand addition using the expanded form.

## Whole class teaching

Write on the chalkboard: $156+231$.

Ask pupils:
'How would you work this sum out?'

Take answers from a couple of pupils.

## Main activity

Individual task
Ask the pupils to complete the following sums in their exercise books:
$173+121=$
$222+666=$
$345+543=$
$621+323=$
$746+144=$
Tell them to use the method you have shown them.

Observe individual pupils working out the sums and help them if needed. Check they are using the number lines.

Explain the expanded form as shown below, reminding pupils that they should only expand the smallest number:
$156=100+50+6$

$$
\begin{aligned}
= & 100+10+10+ \\
& 10+10+10+6
\end{aligned}
$$

(most pupils will not need this step, they should be able to add 50 directly without expanding).

Remind pupils how to use a number line to help them work out the sum.


Repeat the exercise with the sum $124+235$.

## Whole class teaching

Ask the pupils the following question: 'You are given a shopping list and asked to buy 4 yams for 230 Naira and some onions for 122 Naira. How much money would you need?'

Tell them they can use any method to solve the problem.

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Primary 3

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Week 8
Addition of three-
digit numbers
Day 2

## Addition of twodigit numbers

|  | 15 <br> minutes |
| :--- | :--- |
| Learning outcomes | Daily practice |
| By the end of the lesson, most <br> pupils will be able to: | Whole class teaching |
| Write addition sums up to 9. | Write the number 9 and ask <br> pupils to see who can think of <br> the most ways of making 9. |
| Add two-digit numbers that <br> bridge the Ten on a number line. | Write their sums around the <br> number 9. |
| Teaching aids |  |
| Before the lesson: |  |
| Read the lesson plan carefully <br> and make sure you understand <br> the method. |  |

## Main activity

## Whole class teaching

Give the pupils the following sums, stopping after each one to check they are using the correct method:
$45+27=$
$38+18=$
$66+25=$
Ask if anyone has a quicker way of adding the units.
Show them the following:
$57+39=$

$$
39=30+9
$$

Start by adding 30 and then ask how many they jumps would need to reach the nearest Ten, eg: 3
Number line
their ideas, and then show the following method: $39=30+9$
Draw a number line as below, and keep it on the chalkboard for the rest of the lesson.
'Look at the smallest number. What could you do with it to make it easier to add to 57?'

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Week 8
Addition of three-
digit numbers
Day 3

## Addition of twodigit numbers

15 minutes


By the end of the lesson, most pupils will be able to:
Write addition sums up to 8 .
Add two-digit numbers, which bridge the Ten on a number line.

## Teaching aids

Before the lesson:
Read the lesson plan carefully and make sure you understand the method.

## Daily practice

## Whole class teaching

$\overline{\text { Ask pupils to write as many }}$ sums as they can which give the answer 8.

Write different ideas on the chalkboard and ask pupils how they decided which sums to write.


Whole class teaching
Write the following sum on the chalkboard and ask pupils to help you do in it the quickest way:
$46+28=$
Write the largest number on the number line.
Expand the number 28 :
$28=20+8$
Draw this on a number line, remembering to add the 20 first, then break up 8 to jump to the nearest Ten and complete the sum.

## Main activity

## Pair task

Write the following sums on the chalkboard for the pupils to complete in pairs:
$45+28=$
$63+18=$ $36+28=$ $76+18=$ $52+18=$

## Whole class teaching

For each sum ask the pairs: 'How did you break up the 8 ?'

Write the different ways of breaking up the
8 next to the sum on the chalkboard.

## Plenary

## Pair task

Ask the pupils the following problem to solve using any method they can.

The farmer wants to sell some yams at the market. He cuts 55 from 1 field and 28 from another. How many yams does he have altogether?
Ask individual pupils to give you their answer and explain how they did it.

Numeracy
lesson plans
Primary 3

## Term 1

Organising the
classroom for
effective learning

Week 8
Addition of three-
digit numbers
Day 4

15
minutes

Learning outcomes
Daily practice

By the end of the lesson, most pupils will be able to:
Write addition sums up to 7 .
Add two- and three-digit numbers, which bridge the Ten on a number line.

Teaching aids

Before the lesson:
Read the lesson plan carefully and make sure you understand the method.



## Main activity

Group task
Ask each group to complete the following sum using a number line and be prepared to say how they did it: $135+28=$

Ask one group to tell you their answer and explain how they did the sum.
Ask if any groups did it another way.

Whole class teaching
Show the pupils how to do the sum.

Explain that it is the same method they have been learning all week, but the first number contains three digits instead of two.

## Individual task

Give the pupils some more sums to do.

Ask them to use as few jumps as possible to do the following sums:
$328+23=$
$564+18=$
$437+28=$
$644+27=$
$455+35=$

## Plenary

Pair task
Ask the pupils to compare their sums with each other.

Ask them to look at the different ways they broke up the numbers.

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Primary 3

## Term 1

Organising the
classroom for
effective learning

Week 8
Addition of three-
digit numbers
Day 5

## Adding threedigit numbers



## Introduction

## Main activity

Ask the pupils the following question:
'In Primary 1 there are 156 pupils and in Primary 2 there are 139 pupils. How many pupils are there altogether?'

Ask them to tell you how they would solve this problem using a number line.

Whole class teaching
Ask a pair to explain
to the class how they did the sum.

Show them that it is the method they already know, but with bigger numbers, eg:
$156+139=$

$$
139=100+30+9
$$

$$
\overbrace{156}^{+100}+30+4+5
$$

## Pair task

Write the sums below on the chalkboard.

Ask the pupils to think of a sensible guess before they do their calculation and write some of the guesses next to the sum on the chalkboard.

Ask them to tell you how
they chose their guesses.
Ask them to do the sums in their exercise books, using the number line:
$328+238=$
$419+326=$
$576+218=$
$304+427=$
$715+135=$

## Plenary

Whole class teaching
Compare their answers with the guesses on the chalkboard and see if any were close.
Ask the pupils to tell you what they know about addition using a number line.

# Week <br> 9 <br> Addition of three- <br> digit numbers 

(


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Primary 3

## Term 1

Organising the
classroom for
effective learning

Week 9
Addition of three-
digit numbers
Day 1

## Addition of threedigit numbers

Lesson
title

15
minutes

## Learning outcomes

By the end of the lesson, most pupils will be able to:
Multiply single digit numbers together.
Add three-digit numbers that bridge the Ten on a number line.

## Teaching aids

## Before the lesson:

Have ready 25 counters for each pair of pupils.
Read MAN Primary Mathematics
3 , page 60.

## Daily practice

## Pair task

Write the multiplication sign ( x on the chalkboard and ask pupils to tell you what it means.
Write the following sum on the chalkboard and ask the pupils to tell you how they would find the answer: $2 \times 3=$
Give each pair 25 counters.
Remind them that they should make three groups of two and count how many they have altogether.
Ask pupils to use the same method to answer the following questions:
$2 \times 2=$
$3 \times 4=$
$2 \times 4=$
$1 \times 3=$
$5 \times 4=$
$4 \times 3=$
$\left.\begin{array}{l|l|l|l}\begin{array}{l}\text { 10 } \\ \text { minutes }\end{array} & \left\lvert\, \begin{array}{l}\text { 25 } \\ \text { minutes }\end{array}\right. & \begin{array}{l}\text { MAN Primary } \\ \text { Mathematics 3 }\end{array} & \text { Main activity } \\ \text { minutes }\end{array}\right]$
lesson plans
Primary 3

## Term 1

Organising the classroom for effective learning

Week 9
Addition of three-
digit numbers
Day 2

## Multiplication

15
minutes

Lesson
title

## Daily practice

By the end of the lesson, most pupils will be able to:
$\overline{\text { Multiply single digit numbers }}$ together.
Add two-digit numbers that bridge the Hundred.

## Teaching aids

## Before the lesson:

Have ready a set of number cards from 0—5.

Have ready 25 counters for each pair of pupils.

## Pair task

Give each pair 25 counters each.
Mix up the cards and place them face down on the table.
Ask two pupils to come out and pick one number card each and hold them up so the rest of the class can see.
Ask the pairs to multiply the numbers together, using the counters if they wish, and put up their hands when they know the answer.
Repeat until you have done 10 different sums.

| 10 minutes | 25 <br> minutes |  | 10 <br> minutes |
| :---: | :---: | :---: | :---: |
| Introduction | Main activity |  | Plenary |
| Whole class teaching | Whole class teaching | Pair task | Whole class teaching |
| Write the following numbers on the chalkboard and give pupils 5 minutes to work out how many more they need to add on to each number to reach 100: $10,30,50,20,90,80,60$, 40, 70. | Show pupils how to do the following sum, which bridges the Hundred, using a number line: | Give pupils the following sums to complete in pairs: $\begin{aligned} & 45+62 \\ & 73+44 \\ & 25+75 \end{aligned}$ | Ask one or two pairs to tell you their answers and explain how they did the sum. |
| Ask everyone to count in Tens from 50 to 150. | Write the sum and answer at the end: $54+73=127$ |  |  |

Numeracy
lesson plans
Primary 3

## Term 1

Organising the
classroom for
effective learning

Week 9
Addition of three-
digit numbers
Day 3

## Addition of threedigit numbers

| Learning outcomes | Daily practice |
| :---: | :---: |
| By the end of the lesson, most pupils will be able to: | Whole class teaching |
|  | Play the game 'Fizz'. Stand the pupils in a circle and explain that they are going to count around the circle, up to 50 . |
| Recognise multiples of three. |  |
| Add three-digit numbers. |  |
| Teaching aids | Explain that every third number they have to say 'fizz' instead of the number, ie: '1, 2, fizz', '4, 5, fizz', '7, 8, fizz'. |
| Before the lesson: |  |
| Have ready a set of numbers from $0-9$ for each group. | Tell the pupils that they have to concentrate really hard so they don't miss the number. |
|  | When you have finished the game ask them: <br> 'How many are you counting on each time?' |


| 10 minutes | 25 minutes | 10 minutes |
| :---: | :---: | :---: |
| Introduction | Main activity | Plenary |
| Group task | Group task | Whole class teaching |
| Give each group a pack of numbers 0-9. | Ask each group to pick two numbers from their list | Ask the groups to share one sum that they |
| Ask each group to pick six numbers and use them to write down as many three-digit numbers as they can. | and add them together. <br> Ask them to continue with adding together different numbers from the list until they have completed at least 10 sums. | have completed with the rest of the class. |

## Term 1

Organising the
classroom for effective learning

Week 9
Addition of three-
digit numbers
Day 4

Three-digit
numbers


By the end of the lesson, most pupils will be able to:
Complete a multiplication table.
Multiply single digit numbers.
$\overline{\text { Add together three-digit numbers. }}$

## Teaching aids

## Before the lesson:

Draw table 1 opposite below on the chalkboard.
Read MAN Primary Mathematics
3, page 61, exercise G,
activities 2-16.

15
minutes

| 10 minutes |  |  | 25 minutes | MAN Primary Mathematics 3 |  | 10 minutes |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Introduction |  |  | Main activity |  |  | Plenary |
| Whole class teaching |  |  | Individual task |  |  | Pair task |
| Remind pupils that when they see a sum written in the vertical form, eg:$\begin{array}{r} 246 \\ +532 \\ \hline \end{array}$ |  |  | Ask pupils to complete MAN Primary Mathematics 3, page 61, exercise G, activities 2-16. |  |  | Ask pupils to work in pairs to compare answers and check that they have done them in the correct way. |
| They should first of all write it as a horizontal sum, eg:$246+532=$ |  |  |  |  |  |  |
| Ask the class to help you add these two numbers together using a number line. |  |  |  |  |  |  |
| Daily practice table 1 |  |  | Daily practice table 2 |  |  |  |
| $\times$ | 1 | 2 | x | 1 | 2 |  |
| 1 |  | 2 |  |  | $\rightarrow 2$ |  |
| 2 |  |  | 2 |  |  |  |

Numeracy
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Primary 3

## Term 1

Organising the
classroom for
effective learning

Week 9
Addition of three-
digit numbers
Day 5

## Word problems



| $\left\lvert\, \begin{aligned} & 10 \\ & \text { minutes } \end{aligned}\right.$ |  | 25 minutes | MAN Primary Mathematics 3 |
| :---: | :---: | :---: | :---: |
| Introduction |  | Main activity |  |
| Whole class teaching |  | Pair task |  |
| Read the word problem you have written on the chalkboard and explain to pupils that you are going to solve it together. | If they cannot tell you, explain that you know it is an addition because of the word 'and'. <br> Ask the pupils which two | Ask each pair to complete MAN Primary Mathematics 3, page 61, Exercise G, activities 20 and 21 in the same way you have just done together. |  |
| Ask pupils to help you underline the information that will help them answer the question (highlighted in the question for your information). | numbers they should add together to find the answer and write it as a sum on the chalkboard: $123+95=$ <br> Ask them to help you | Help any pairs that you think will find it hard to read the questions. |  |
| Ask them if they can tell you, by reading the information, what type of sum they will be expected to complete. | Ask them to help you solve the problem by working out the answer to the sum and then you write the answer in words on the chalkboard: 'They have 218 apples altogether.' |  |  |

## Plenary

## Whole class teaching

Come together and share the answers and methods used to solve the word problems.

## Week

Money


## Term 1

Organising the classroom for effective learning

## Week 10

Money
Day 1

## Ordering Nigerian currency

15

## Learning outcomes

By the end of the lesson, most pupils will be able to:
Recognise and order Nigerian coins and bank notes.

Add and subtract two numbers without using pencil and paper.
Teaching aids

## Before the lesson:

Read MAN Mathematics Primary 3, page 127.
Have ready a set of Nigerian coins and notes.

Have ready six blank card circles, eight blank card rectangles, a long piece of string and some pegs or tape for each group.

Daily practice

## Whole class teaching

Ask the pupils the following questions, one at a time, and ask them to work out the answers without using pencil or paper: $3+5$
$4+10$
$15+20$
$35+16$
20-4
70-20
55-7
$45+23$
Tell pupils to raise their
hands when they think they have the answer.

When most of the class have their hands raised, ask each of them their answer and ask a few to tell you how they worked it out.
Tell them the correct answer.

| 10 minutes | 25 MAN Primary <br> minutes Mathematics 3 | 10 minutes |
| :---: | :---: | :---: |
| Introduction | Main activity | Plenary |
| Group task | Group task | Whole class teaching |
| Give the notes and coins out to groups of pupils. | Ask each group to look at MAN Primary Mathematics 3, page 127. | Check that each group is correct and help |
| Ask them to look at the note or coin they have very carefully and be ready to describe it to the rest of the class, using the following questions as a guide: <br> 'How much is it worth?' <br> 'What colour is it?' <br> 'What pictures are on it?' <br> 'What could you buy with it?' | Ask them to make one of each type of note or coin per group, trying to make them look as close as possible to the originals. | them hang their money number lines across the classroom. |
| Ask each group to tell the rest of the class everything they can about their note or coin. | Ask the groups to use string and tape or pegs to make a number line of coins and notes, from the largest to the smallest. |  |

Numeracy
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Primary 3

## Term 1

Organising the
classroom for
effective learning

## Week 10

Money
Day 2

Changing money into smaller units

15
minutes

| Learning outcomes | Daily practice |
| :---: | :---: |
| By the end of the lesson, most pupils will be able to: | Whole class teaching |
| Identify Hundreds, Tens and Units in a three-digit number. | Read the following numbers one at a time and ask pupils to write them down: <br> 432 <br> 761 <br> 382 |
| Change money into smaller units. |  |
| Teaching aids | $\begin{aligned} & 903 \\ & 321 \\ & 793 \end{aligned}$ |
| Before the lesson: | 844 |
| Have ready a full set of Nigerian coins and notes. | $\begin{aligned} & 805 \\ & 760 \\ & 520 \end{aligned}$ |
|  | Choose one digit from each number and ask pupils to say whether it is the Hundreds, Tens or Units digit. |
|  | Write down some threedigit numbers on the chalkboard and ask pupils to read the number to you. |


| 10 minutes |  | $\left\lvert\, \begin{aligned} & 25 \\ & \text { minutes } \end{aligned}\right.$ |  |
| :---: | :---: | :---: | :---: |
| Introduction |  | Main activity |  |
| Group task |  | Whole class teaching <br> Ask pupils to look at the number line they made on Day 1. | Group task |
| Divide the pupils into two groups. | Choose the first pupils to put up their hand. If they are correct give their group one point. |  | Give each group a coin or note between 5 Kobo and 1,000 Naira and ask them to write down as many ways as they can to make that amount using notes and coins. |
| Ask them to line up so that Group A faces |  |  |  |
| Group B. | Continue until you have described all the coins and notes. | Write '100 Naira' on the chalkboard and ask them to tell you any ways they could use the notes and coins to make 100 Naira, eg: |  |
| Tell the pupils that they are going play a 'coins' and 'notes' quiz. |  |  |  |
| Describe each 'coin' and 'note' in turn, being careful not to say the amount it's worth. | The team that has the most points at the end is the winner. | ```100 Naira = 50 Naira + 50 Naira 100 Naira = 50 Naira + 10 Naira +20 Naira + 20 Naira``` |  |
| Ask pupils to put up |  |  |  |
| know which coin or note you are describing. |  | Continue until the pupils have thought of as many ways as possible to make 100 Naira using Naira notes and Kobo. |  |

Whole class teaching
Ask each group to read out some of their answers.

Numeracy
lesson plans
Primary 3

## Term 1

Organising the
classroom for effective learning

Week 10
Money
Day 3

Lesson
title

|  | 15 <br> minutes |
| :--- | :--- | :--- |
| Learning outcomes | Daily practice |
| By the end of the lesson, most <br> pupils will be able to: | Individual task |
| Change money into smaller units. Ask the pupils to do the following <br> sums in their exercise books:  |  |
| Add three-digit numbers together. | 'Add 357 and 152.' |
| 'Add 128 and 212.' |  |


| 10 minutes | 25 minutes | MAN Primary <br> Mathematics 3 | 10 minutes |
| :---: | :---: | :---: | :---: |
| Introduction | Main activity |  | Plenary |
| Whole class teaching | Group task |  | Whole class teaching |
| Ask pupils to come and look at the shopping corner. | Give each group a selection of 50 Kobo coins. |  | Ask pupils to discuss in their group what they have learned in these activities. |
| Ask them questions, eg: 'How much is the price of | Ask pupils to work together to complete MAN Primary Mathematics 3 page 130, Exercise A, using the coins to help them. |  |  |
| a ruler?' |  |  | Tell them to share their ideas with the rest of the class. |
| Ask pupils to look for the ruler and check the amount |  |  |  |
| on the price label. | While they are working on this, ask each group to come out in turn and use the money to shop for different items. |  |  |
| Ask individual pupils to say which coins or notes they would use if they wanted to buy that item. |  |  |  |

Numeracy
lesson plans
Primary 3

## Term 1

Organising the
classroom for effective learning

Week 10
Money
Day 4

## Kobo and Naira

|  | $\begin{aligned} & 15 \\ & \text { minutes } \end{aligned}$ |
| :---: | :---: |
| Learning outcomes | Daily practice |
| By the end of the lesson, most | Pair task |
| Order three-digit numbers on a number line. | Read out the following numbers and ask pupils to draw a number line and put them in the correct |
| Add together two amounts of money. | order on it: <br> 793 <br> 444 <br> 25 |
| Teaching aids | $\begin{aligned} & 445 \\ & 832 \\ & 999 \end{aligned}$ |
| Before the lesson: | 123 |
| Re-label the items in the shopping corner so that some cost Naira and some Kobo. | $\begin{aligned} & 699 \\ & 76 \end{aligned}$ |
| Read MAN Mathematics Primary 3, pages 132-136. |  |



Numeracy
lesson plans
Primary 3

## Term 1

Organising the
classroom for effective learning

## Week 10

Money
Day 5

## Adding Kobo and Naira



By the end of the lesson, most pupils will be able to:
Add together items of mixed Naira and Kobo.

Add three-digit numbers.

## Teaching aids

Before the lesson:
Read through the lesson plan and make sure you understand the ideas and methods.

Have a ball ready.

| 10 <br> minutes | 25 <br> minutes | Main activity |  |  |
| :--- | :--- | :--- | :--- | :--- |
| Introduction | Whole class teaching |  | Pair task |  |
| Whole class teaching |  |  |  |  |

10
minutes

Plenary

Whole class teaching
Bring the whole class together and help them to check their work.

## Credits

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