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Type of lesson plans/
Grade

Term/
Learning theme

Numeracy lesson plans
Primary 3

Term 1
Creating an effective learning environment

Weeks
1—5

Numeracy lesson plans Primary 3 Term 1 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

The quality of education is a key element to socio-economic development in any society. Perhaps the most critical element in ensuring quality of education is the teacher. Good teaching methodology, with the right textbooks, will quickly provide a good platform for a quality education system in Kano State.

The challenges are sometimes overwhelming when you have 5,335 schools with over 2.3 million children and 46,643 teachers. The Kano State Ministry of Education carried out a series of baseline surveys to assess classroom teachers, the role of the head teacher and the level of pupil learning outcomes.

The findings in most cases were alarmingly poor, with not much difference between qualified and unqualified teachers with respect to output. The majority of teachers were themselves victims of an education system that was in a serious downward slope.

Following this, the Kano State Ministry of Education, the State Universal Basic Education Board (SUBEB) and local government education authorities (LGEAs), supported by the Education Sector Support Programme in Nigeria (ESSPIN), embarked on a series of reforms that will help strengthen schools.

This work has focused on classroom teaching skills – in particular how to make teaching child-centred – and the organisational structures needed for SUBEB and LGEA staff to provide effective support and advice to primary schools.

With many school leavers unable to read or write, a specific focus has been on improving the teaching of basic literacy and numeracy. To support this, Kano State has developed a benchmark for assessment and carefully designed literacy and numeracy lesson plans for Primary 1—3 teachers. These plans provide a step-by-step guide to teachers, while ensuring children become active learners.

The lesson plans, however, are not sufficient. Structures and processes have also been put in place so that teachers are continuously supported by both the State School Improvement Team and the LGEA-based school support officers.

We are sure that within a short time of these lesson plans being introduced, children's learning abilities will improve considerably. The materials will also enable teaching and learning to be more exciting – an important element in all classes, but in particular at the primary level. We are confident that these lesson plans will raise standards and improve the quality of children proceeding to higher levels of education.

We commend all those who have produced these lesson plans and trained our teachers to use them. We offer thanks to the UK Department for International Development (DFID) for its ongoing support to education reform in Kano State through its ESSPIN programme. Let's make every Kano school an improving school.

Barister Farouq Iya Sambo
Honourable Commissioner
of Education
Kano State

Wada Zakari
Executive Chairman
SUBEB
Kano State

Numeracy lesson plans
Primary 3

Term 1
Creating an effective learning environment

Weeks
1—5

Introduction
Creating an effective learning environment

An effective learning environment

The 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 3

Term 1
Creating an effective learning environment

Weeks
1—5

Introduction

Essential low-cost or free teaching aids

This term's teaching aids

These are essential teaching aids for this term's work. They will be used almost every day for the first two weeks and again during the year. It is worth spending some time making enough for every pair in your class.

Place value cards

Use card to construct the cards shown below.

If possible, make one set per pair of pupils.

You could also make one large class set.

1 set 100—900

1 set 10—90

1 set 0—9

Hundred card

Ten card

Unit card

How to use the place value cards

For three-digit numbers:

Place a Unit card on top of a Ten card, and a Ten card on top of a Hundred card, eg: 5 on top of 40 makes 45, 45 on top of 700 makes 745.

Explain this as 7 Hundreds, 4 Tens and 5 Units making 745.

Repeat several times, constructing new three-digit numbers.

Dictate a number to pupils.

Ask them to make that number.

Ask:
'How many Hundreds are there in the number?'
'How many Tens are in the number?'
'How many Units are in the number?'

Each time they make a new number ask them:
'What number have you made?'
Ask questions, eg:
'What is the 7 worth in 732?'
'What is the 3 worth in 73?'

Bundles of 10

Collect lots of sticks or straws of the same size.

Cut them so that they are about 10 centimetres (cm) long.

Divide the sticks or straws into groups of 10 and tie them together to make bundles of 10.

These, along with single straws or sticks of the same size, can be used to teach the concept of Tens and Units.

Numeracy lesson plans
Primary 3

Term 1
Creating an 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 or matchboxes, in required numbers.

Write a whole number up to 10 in or on each of the bottle tops or objects to throw, eg:

Make charts on the backs of old calendars or posters, like the ones below.

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

Then follow the instructions in the lesson plan.

Players play in turn and can stop after two or more attempts by each player.

If the bottle top does not land on the required spot or space (eg: on the line or outside appropriate spot/space), it is a foul throw.

Tangram

A ‘Tangram’ is an ancient Chinese seven-piece puzzle.

Get some old newspaper, plain paper or card and use a ruler to make the shape exactly as it is below.

Make as many copies as you need for each group or pair to have one.

Cut along the thick lines so that you have seven shapes. Keep each set together with a clip or in separate envelopes or containers.

Chart 1

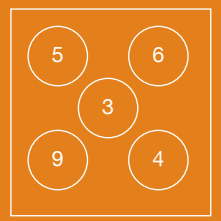
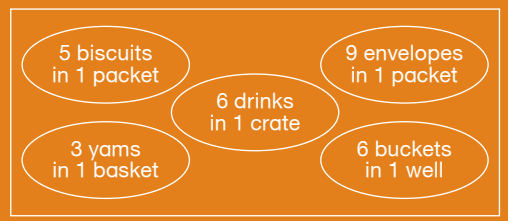
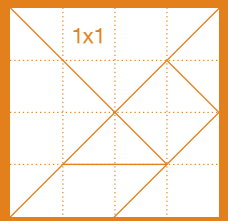


Chart 2



Tangram shape



Animal shapes

Week 1 Numbers up to 999

Words/phrases	Assessment
Hundreds Tens Units bundles of 10 single three-digit numbers	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.

Lesson title

Counting up to 999

15 minutes

Learning outcomes

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

Add two-digit numbers.

Count numbers up to 999.

Recognise numbers up to 999.

Teaching aids

Before the lesson:

Have ready a set of number cards from 0—9.

Have ready bundles of 10 straws and 10 single straws for each pair.

Daily practice

Whole class teaching

Ask the pupils if they can remember ways of adding two numbers together, eg: number lines, expanding numbers or counting on.

Put the number cards face down on the table and ask four pupils to come out and pick one each.

Ask them to stand together to make two numbers between 10 and 99.

Ask the rest of the class to add these two numbers together using any way they can remember.

Ask someone to give you the answer and explain how they did the sum.

Repeat the process four or five times.

10 minutes

Introduction

Whole class teaching

Count up to 100 with the class.

Ask different groups of pupils to count in 2s, 4s, 5s and Tens, up to 100.

25 minutes

Main activity

Pair task

Give each pair bundles of Tens and Units.

Write two numbers from 0—9 on the chalkboard and ask each pair to make the lowest number and the highest number possible using both numbers.

Repeat this four or five times.

Ask the pupils to write down how many 1s there are in one group of 10.

Ask the pupils to work out how many Tens there are in one group of 100.

Tell them they can do this using any method.

When they have worked out that the answer is 10, write the following on the chalkboard:

10 groups of 1 = 10

10 groups of 10 = 100

☐ groups of 100 = 1,000

Ask the pupils if they can guess how many groups of 100 there are in 1,000 (10).

Ask them how they worked it out.

Ask them to tell you how many groups of 100 there are in: 500, 200, 400, 300, 900, 400. Tell them to record the answer in their exercise books in the following way:
500 = 5 groups of 100.

Ask them to tell you the answers and how they worked it out.

10 minutes

Plenary

Whole class teaching

Ask the class to look at the following numbers on the chalkboard:
314
542
689
275
437

For each number, ask individual pupils, 'How many groups of 100 are there?'

Lesson title

Writing numbers up to 999

15 minutes

Learning outcomes

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

Subtract two-digit numbers.

Write numbers up to 999.

Recognise the value of each number.

Teaching aids

Before the lesson:

Have ready a set of number cards from 0—9.

Have ready bundles of 10 straws and 10 single straws for each pair.

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

Read New Method Mathematics 3, page 6, questions 1—10.

Daily practice

Whole class teaching

Put the number cards face down on the table and ask four pupils to come out and pick one each.

Ask them to stand together to make two numbers between 10 and 99.

Ask if someone can tell you the lowest number and the highest.

Remind them that when you subtract, you always start with the highest number and take away the lowest.

Ask them to subtract one number from the other using any method.

Ask someone to give you the answer and explain how they did it.

Repeat four or five times.

10 minutes	25 minutes	New Method Mathematics 3	10 minutes
Introduction	**Main activity**		**Plenary**
Group task Give each group a set of 0—9 number cards, place value cards and bundles of straws. Ask the pupils to pick any three number cards. Ask the pupils to make as many two-digit numbers as possible from those numbers, eg: 34, 23, 32. Ask the pupils to write the numbers they have formed in figures and then in words, ie: 23 = twenty three, 32 = thirty two.	**Group task** Repeat, but this time, ask one member of the group to take four cards and show them to others. Ask the pupils to write down as many three-digit numbers as possible from those numbers. Ask the pupils to say how many Hundreds, Tens and Units there are in each number, using the place value cards to help them.	**Individual task** Ask the pupils to complete New Method Mathematics 3, page 6, questions 1—10, using the place value cards to help them.	**Whole class teaching** Ask some of the pupils to come out and explain how they got their answers.

Lesson title

Reading numbers up to 999

15 minutes

Learning outcomes

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

Add two-digit numbers using a number line.

Read numbers up to 999.

Teaching aids

Before the lesson:

Have ready a set of number cards from 0—9.

Have ready bundles of 10 straws and 10 single straws for each pair.

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

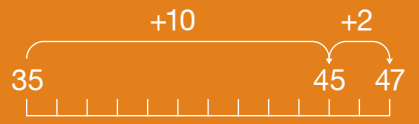
Daily practice

Whole class teaching

Write the sum 35 + 12 on the chalkboard.

Draw a blank number line on the chalkboard with marks for numbers and ask which number you put at the left-hand end (35).

Ask the pupils to tell you what to do next, ie: break 12 up into Tens and Units, start at 35, add 10 and write the number on the number line, then add 2 and write the number on the number line, eg:



Repeat with different numbers.

Give the pupils two or three simple sums to try on their own.

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**

Whole class teaching

Ask the pupils to write down any three-digit number, eg: 478.

Ask the pupils which number represent Hundreds, Tens and Units from the given numbers, eg:
4 represents 4 Hundreds,
7 represents 7 Tens and
8 represents 8 Units.

Repeat two or three times, asking pupils to record their answers each time and hold them up for everyone to see.

Group task

Give each group number cards 0—9.

Ask one pupil to pick three cards, make a three-digit number and show it to the rest of the group.

Ask them to expand their numbers into Hundreds, Tens and Units, eg:

582 = 5 Hundreds
+ 8 Tens
+ 2 Units
500 + 80 + 2

647 = 6 Hundreds
+ 4 Tens
+ 7 Units
600 + 40 + 7

Tell them they can make their numbers first using the place value cards to help them if they need to.

Tell the pupils to put the number cards back after use and let someone else pick out three numbers.

Make sure that each pupil has a turn at picking the cards.

Whole class teaching

Ask pupils from each group to come out and explain to the whole class how they got their answers.

Lesson
title

Ordering numbers

15
minutes

Learning outcomes

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

Subtract two-digit numbers using a number line.

Compare pairs of numbers using the symbol < or >.

Teaching aids

Before the lesson:

Have ready bundles of 10 straws and 10 single straws for each pair.

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

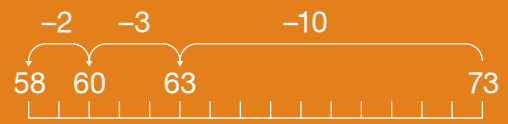
Daily practice

Whole class teaching

Explain that you are going to subtract 15 from 73 using a number line.

Draw a line on the chalkboard and ask which number you write first, ie: 73.

Ask them to tell you what to do next, ie: take 10 away from 73 then count down until you reach the nearest Ten. (60) How many jumps? (13) How many have you left until you have made 15 jumps? (2) Take 2 away from 60. 73 – 15 = 58:



Repeat with different numbers.

10 minutes

25 minutes

10 minutes

Introduction

Whole class teaching

Ask the pupils to explain the following symbols, giving examples, eg:
< less than
> greater than

Write pairs of numbers on the chalkboard and ask the pupils to put the symbol between them so it reads correctly, ie: 247 > 155.

Main activity

Pair task

Write five, three-digit numbers on the chalkboard and ask each pair to work together to put them in the correct order, from the highest to the lowest.

Remind them to look at the Hundreds first, then the Tens and finally the Units to see which is the biggest.

Tell each pair to put up their hands when they have done this.

When most of the class have their hands raised, ask the pair who raised their hands last to give you the answer.

Ask the rest of the class if they agree with the order.

Repeat four or five times, each time writing different sets of five numbers on the chalkboard.

Individual task

Write the following columns of numbers on the chalkboard:

61	78	99	105
715	823	413	347
781	213	342	432
321	343	365	378

Ask the pupils to write the numbers in each column in order, from the lowest to the highest.

Plenary

Whole class teaching

Ask one or two pupils to share their answers with the rest of the class.

Numeracy lesson plans
Primary 3

Term 1
Creating an effective learning environment

Week 1
Numbers up to 999
Day 5

Lesson title

Number lines for large numbers

15 minutes

Learning outcomes

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

Add and subtract two-digit numbers.

Order numbers up to 999 on a number line.

Teaching aids

Before the lesson:

Prepare number cards from 0—9.

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

Daily practice

Individual task

Ask the class to complete the following sums using a number line:
23 + 45
65 – 42
35 + 15
79 – 56
54 – 36
67 + 87

Remind pupils to look closely at the sign so they know whether the sum is addition or subtraction.

Ask individual pupils to tell the class their answers and explain how they did it.

10 minutes

Introduction

Whole class teaching

Read out the following numbers, one at a time, and ask the pupils to write them in their exercise books: 124, 236, 571, 683, 96, 214, 400.

When they have written one number, ask one pupil to come out and write it on the chalkboard for everyone to see.

When you have a full list of numbers, ask the pupils to work with a partner and work out the correct order from the highest to the lowest, using the place value cards if necessary.

25 minutes

Main activity

Whole class teaching

Ask the pupils to write the numbers on a number line from the lowest number to the highest.

Ask them to choose two numbers and tell you how they would work out the difference between them using the number line, ie: subtracting the lowest number from the highest.

Ask them to work out the answer.

Ask the pupils to explain which numbers they chose and how they worked out the answer.

Tell them to do the same activity with different pairs of numbers on their number line.

10 minutes

Plenary

Whole class teaching

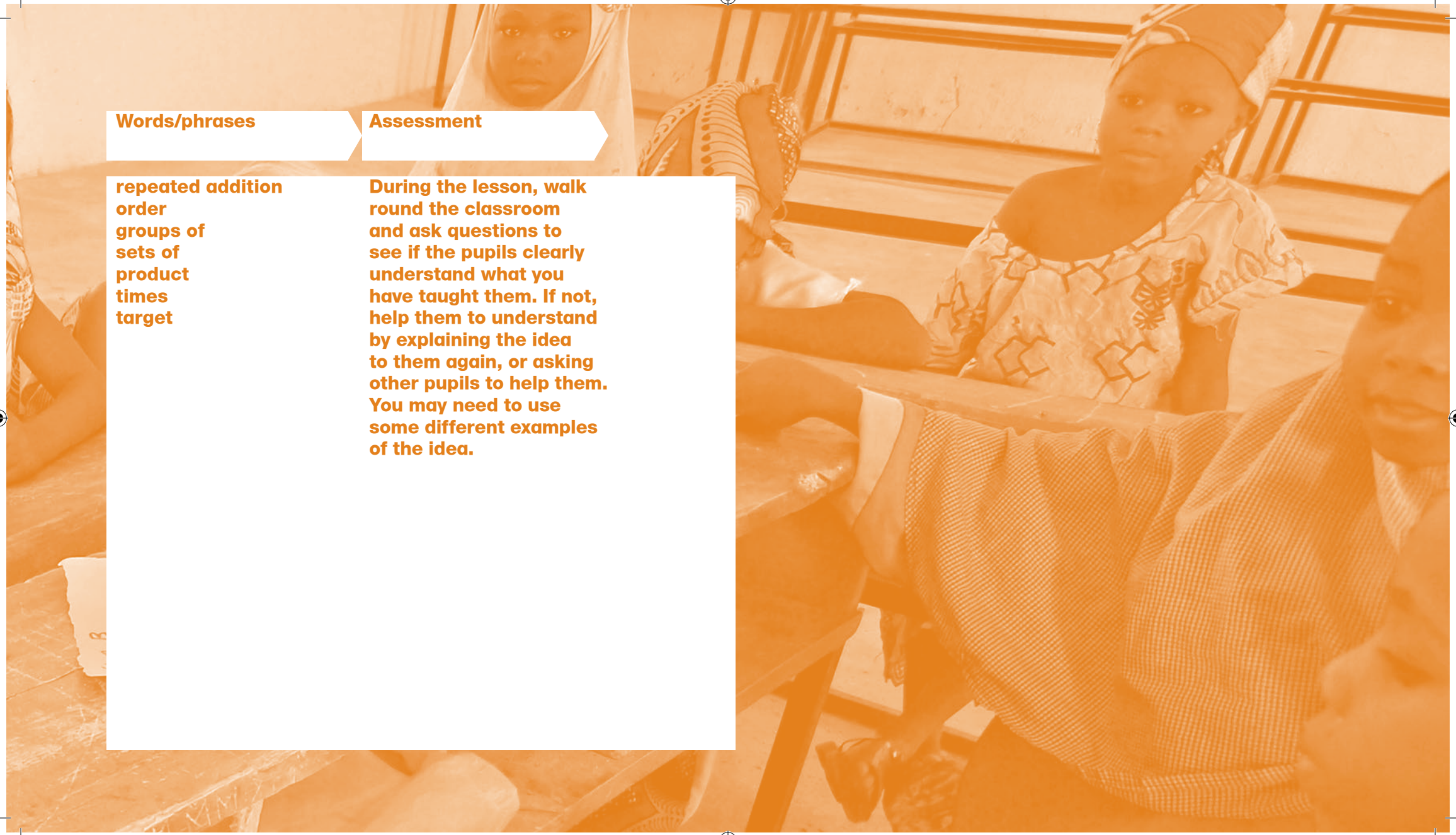
Sit the pupils in a circle.

Throw a ball across the circle and ask the pupil who you threw it to, to tell you one thing they have learned about numbers during this week.

When that pupil has spoken, ask them to throw the ball to someone else and they should also say something they have learned about numbers this week.

Continue, until three or four pupils have had a turn.

Week 2 Multiplication



Words/phrases	Assessment
repeated addition order groups of sets of product times target	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.

Lesson title

Repeated addition

15 minutes

Learning outcomes

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

Order a group of numbers up to 999.

Count groups of objects and numbers.

Explain the method being used.

Teaching aids

Before the lesson:

Collect a large selection of counters for each pair.

Have ready sets of 0—9 number cards for each group.

Make a 'Target throw' Chart 1 for each group (as in the introduction), containing different single-digit numbers.

Daily practice

Whole class teaching

Write a list of three-digit numbers on the chalkboard.

Ask the pupils to tell you the value of each digit, ie: 345 = 3 Hundreds, 4 Tens and 5 Units, or 300, 40 and 5.

Ask the pupils to draw a number line and order the numbers in the number line, from the lowest to the highest.

10 minutes

Introduction

Pair task

Give each pair a selection of counters and number cards from 0—9.

Ask one pupil to pick a number card.

Ask them to look at the number and make that number of piles of counters on their table, eg: 5 piles.

Ask the other pupil to pick another card and put that number of counters in each pile, eg: 5 piles of 4.

Ask each pair:
'How many counters do you have altogether?'

Ask them to write what they have just done as a sum using repeated addition or multiplication, eg:

5 + 5 + 5 + 5 = 20
or
5 x 4 = 20

(both ways of writing this are correct).

Ask them to repeat the process until they have they have written 10 different sums.

25 minutes | Game

Main activity

Group task

Ask the groups to play the 'Target throw' game, as described in the introduction section.

Give each group a different target to throw their object at.

Ask the pupils to record the sums they made, eg: a first throw that lands on 7 and a second throw that lands on 4 can be written as:

7 x 4 =
or
4 + 4 + 4 + 4 + 4 + 4 + 4 =

Ask them to change the numbers around so they make 4 groups of 7, and then write the sum and its answer.

Ask them to play this six or seven times, each time making two sums with the numbers.

10 minutes

Plenary

Whole class teaching

Ask some pupils to come out and explain how they worked out their multiplication sums.

Ask them if they can tell you anything interesting when they used the same numbers to make the sum, ie: the answers are the same whichever order you put the numbers in.

Lesson title

Multiplication using a number line

15 minutes

Learning outcomes

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

Make up a variety of three-digit numbers.

Identify the place value of three-digit numbers.

Multiply numbers using repeated addition.

Teaching aids

Before the lesson:

Have ready sets of 0—9 number cards.

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

Collect a large selection of counters for each pair.

Daily practice

Group task

Give each group a set of 0—9 number cards.

Ask pupils from each group to pick any three numbers from the pack.

Ask the pupils to make as many three-digit numbers as possible with the number cards and record them in their exercise books, eg: 346, 463, 714, 529.

Ask them to use their place value cards to help write the numbers as expanded numbers, eg: 375 = 300 + 70 + 5.

10 minutes

Introduction

Whole class teaching

Write the following on the chalkboard and ask the pupils to explain to you what it means: 4 x 4 =

Ask if anyone can tell you what the 'x' means.

Ask them if they know any other words which mean the same things, ie:

multiply
times
product
groups of
lots of
sets of

Ask the pupils to tell you how they would answer this question: 4 x 4 =

Remind them that they can write it out in full to help them, ie: 4 + 4 + 4 + 4 =

Read out the following sums one at a time, using the different terms 'times', 'multiply' and 'groups of' each time. Ask the pupils to work out the sums in their exercise books, using counters to help them:

7 times 3 =
7 groups of 3 =
7 multiplied by 3 =
4 x 5 =
6 x 3 =
8 x 4 =

25 minutes

Main activity

Pair task

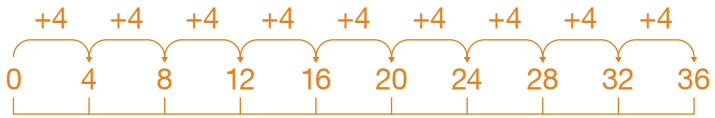
Show the pupils how to use a number line to do the sum 9 x 4 by starting at 0 and adding 4 each time, as shown below.

If it is easier for the pupils to understand, you can write all the numbers from 0—40 on the number line, and then they can count four jumps each time.

Ask them to complete the sums they did earlier, but this time use the number lines instead of counters to work out the answers.

Number line

9 x 4 =



10 minutes

Plenary

Whole class teaching

Ask some pupils to explain how they worked out their answers.

Lesson title

Multiplication

15 minutes

Numeracy lesson plans
Primary 3

Term 1
Creating an effective learning environment

Week 2
Multiplication
Day 3

Learning outcomes

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

Write numbers in figures and in words.

Multiply numbers using a number line.

Teaching aids

Before the lesson:

Have ready sets of 0—9 number cards.

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

Daily practice

Group task

Give each group a set of number cards from 0—9.

Ask pupils from each group to pick any three numbers from the pack.

Ask the pupils to make as many three-digit numbers as possible with the number cards and record them in their exercise books.

Ask the pupils to write the numbers in words, eg: 125 = one hundred and twenty five.

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**
Whole class teaching	**Pair task**	**Whole class teaching**
Do the following as examples with the whole class, using the number line: 5 x 4 = 2 x 3 =	Ask the pupils to work in pairs to do the following sums in their exercise books, drawing a number line for each one: 3 x 2 = 2 x 3 = 4 x 3 = 3 x 4 = 4 x 2 = 2 x 4 = Ask the pupils to check their partners' work to make sure they have the same answers.	Ask individual pupils to come out and share with the rest of the class what they have learned.

Lesson title

Multiplication using number lines

15 minutes

Learning outcomes

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

Write numbers in expanded form, using Hundreds, Tens and Units.

Use a number line to solve word problems.

Teaching aids

Before the lesson:

Prepare 'Target throw' Chart 2 and counters, as explained in the introduction.

Write the following numbers on the chalkboard: 647, 746, 529, 197.

Daily practice

Individual task

Look together at the three-digit numbers on the chalkboard.

Look at 647. Ask the class, 'What is the value of each digit?' (6 Hundreds, 4 Tens and 7 Units, or 600, 40 and 7).

Ask the pupils to expand the other three-digit numbers in two different ways.

10 minutes	25 minutes	Game	New Method Mathematics 3	10 minutes	Game

Introduction

Whole class teaching

Ask pupils the following multiplication questions and ask them to write the answer in their exercise books before putting up their hands:

'If there are 2 biscuits in a packet, how many biscuits would you have in 3 packets?'

'If there are 4 bottles of soft drink in a crate and you have 2 crates, how many bottles of soft drinks would you have?'

'If a cow has 4 legs and there are 3 cows, how many legs are there altogether?'

Ask them to explain how they worked out the answers.

Main activity

Group task

Give each group a 'Target throw' chart and counters.

Ask each pupil in the group to take turns to throw their counters on the chart and record where they land.

Ask every group member to write the sum that they have made, eg: if they throw the number 3 counter and it lands on '6 drinks in 1 crate', they would record it as: 4 x 6 =

Ask pupils to draw a number line to answer the questions they have made.

Repeat until every pupil in the group has had a turn.

Individual task

Ask the pupils to complete New Method Mathematics 3, page 52, questions 3—10, using number lines to answer the questions.

Ask the pupils to exchange their books and check each other's answers.

Plenary

Whole class teaching

Play a game with the pupils.

Ask them to walk around the classroom and then stand in groups of four.

Ask someone to tell you how many groups there are, and how many people are in those groups altogether.

Lesson title

Word problems

15 minutes

Learning outcomes

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

Write numbers as Hundreds, Tens and Units.

Multiply numbers using a number line.

Teaching aids

Before the lesson:

Have ready a set of 0—9 number cards for each group.

Read New Method Mathematics 3, page 55, questions 9—14.

Write the names of all the pupils on small pieces of paper and put them in a pot.

Daily practice

Group task

Give each group a set of number cards.

Ask each group member to take a number.

Tell them to use their numbers to make as many two- and three-digit numbers as they can in 5 minutes and write them on a sheet of paper.

Ask them to put those numbers in order, from the lowest to the highest.

Ask the pupils to share their numbers. Ask them:
'Who made the most numbers?'
'Who got the highest number?'
'Who wrote the lowest number?'
'Has anyone made a number that no one else has made?'

10 minutes	25 minutes	New Method Mathematics 3	10 minutes

Introduction

Whole class teaching

Write the following sums on the chalkboard and ask pupils to tell you how to answer the first one:
2 x 6 =
6 x 2 =
5 x 4 =
4 x 5 =
3 x 6 =
6 x 3 =

Ask all pupils to try the rest of the sums in their exercise books.

Ask individual pupils to tell you their answers.

Ask the pupils how they did it and answer the sum on the chalkboard, by following their instructions.

Ask if the pupils noticed anything about the answers (6 x 2 is the same as 2 x 6).

Main activity

Individual task

Ask the pupils to complete New Method Mathematics 3, page 55, questions 9—14.

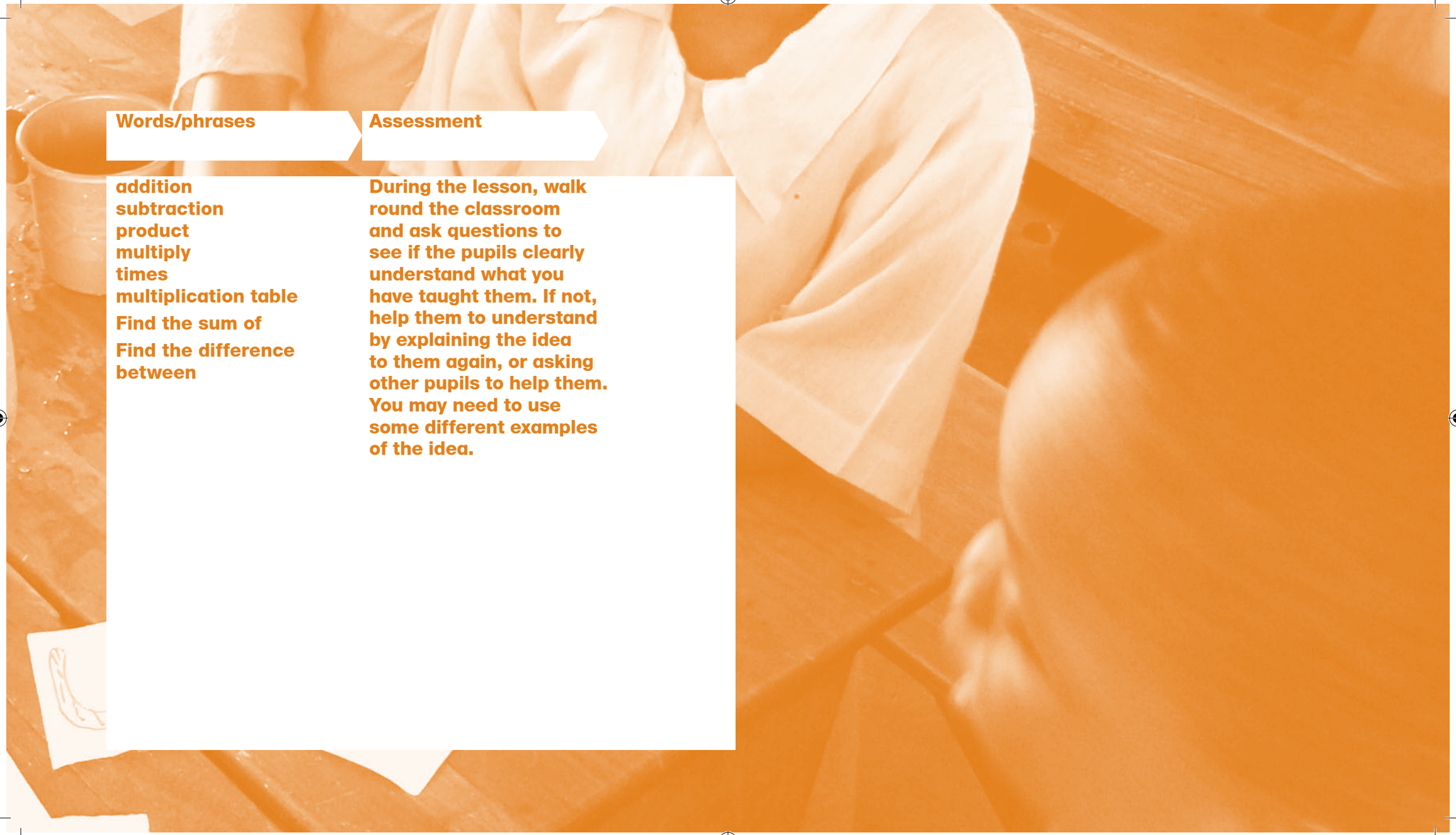
Go round and help the pupils work out how to answer the questions. Encourage them to use a number line to help them.

Plenary

Whole class teaching

Pick out the names of individual pupils from the pot and ask them to tell you one thing they have learned this week about multiplication.

Week 3 Multiplying 1 x 1 to 9 x 9



Words/phrases	Assessment
addition subtraction product multiply times multiplication table Find the sum of Find the difference between	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.

Lesson title

Multiplying

15 minutes

Learning outcomes

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

Add and subtract two-digit numbers.

Investigate multiplication patterns.

Teaching aids

Before the lesson:

Have ready number cards from 0—9 for each group.

Collect enough counters for each group to have 100.

Daily practice

Group task

Give each group a set of 0—9 number cards.

Ask the groups to pick any four numbers.

Read the following instructions to them one at a time, recording the sums and the answers in their exercise books:

'Make two, two-digit numbers and put them on a number line.'

'Find the sum of the two numbers.' (addition).

'Subtract the smaller number from the larger number.'

'The larger number is how many more than the smaller number?' (counting on).

Ask each group to repeat this once or twice.

10 minutes

Introduction

Whole class teaching

Ask pupils to remind you how to multiply two numbers together.

Explain that this week they are going to look at another way of multiplying numbers together.

25 minutes

Main activity

Group task

Give each group 100 counters and a set of number cards from 0—9.

Ask them to lay the numbers out in a line and put the counters in groups of two next to each number, ie:

1 ●●
2 ●● ●●
3 ●● ●● ●●

Ask if they can write each row as a sum, thinking about what they learned from last week, ie:

1 x 2 = 2
or
1 + 1 = 2

Ask them to look at the sums and their answers carefully, and be prepared to say one thing to the rest of the class about them.

10 minutes

Plenary

Whole class teaching

Ask each group to say one thing they noticed about the numbers and write their ideas on the chalkboard.

Numeracy lesson plans
Primary 3

Term 1
Creating an effective learning environment

Week 3
Multiplying 1 x 1 to 9 x 9
Day 2

Lesson title

Multiplication

15 minutes

Learning outcomes

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

Add and subtract two-digit numbers.

Investigate multiplication patterns.

Teaching aids

Before the lesson:

Look at the multiplication table in New Method Mathematics 3, page 52.

Daily practice

Whole class teaching

Read the following sums one at a time:
20 + 10 =
15 + 23 =
30 – 12 =
25 + 25 =
62 – 15 =

Ask the pupils to work them out as quickly as they can without using pencil and paper and put up their hands when they have the answer.

Ask them to tell you the answer and explain how they worked it out.

10 minutes	New Method Mathematics 3	25 minutes	10 minutes

Introduction

Whole class teaching

Ask the pupils to look at the multiplication table in New Method Mathematics 3, page 52.

Ask individual pupils to tell you something they find interesting about it.

Write their ideas on the chalkboard. Try to get as many ideas as possible.

Ask the pupils some questions from the table to help them become familiar with it, eg:
4 x 3 =
7 x 5 =
6 x 2 =

Main activity

Pair task

Give each pair a number from 0—16.

Ask them to count how many times their number appears in the answers on the multiplication table.

Ask them to say why they think their number appears more than once.

Individual task

Ask the pupils to divide a page of their exercise books into six parts.

Ask them to choose six numbers between 1 and 81 and write one in each box.

Ask them to write all the sums they can find which give that answer in the correct box.

Ask them to choose one of the sums and answers and use counters or a number line to show how to do that sum.

Plenary

Whole class teaching

Ask one or two pupils to explain their work to the class.

Lesson title

Investigating multiplication

15 minutes

Learning outcomes

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

Add and subtract two-digit numbers.

Investigate multiplication facts.

Use a multiplication table to answer questions.

Teaching aids

Before the lesson:

Read New Method Mathematics 3, pages 52 and 54.

Write the 3 times table on the chalkboard.

Daily practice

Whole class teaching

Write the numbers 0—20 on the chalkboard.

Ask the pupils to use addition or subtraction to make one of the numbers, eg: 19 = 27 – 8

Write the sum next to the number and then ask if anyone can make one of the other numbers.

Tell the pupils that they have 10 minutes in pairs to complete all the numbers from 0—20.

When 10 minutes is finished, ask:

'How many numbers did you make sums for?'

'How many of you have used both addition and subtraction?'

'Were there any numbers you couldn't make a sum for?'

10 minutes	25 minutes	New Method Mathematics 3	10 minutes	Game

Introduction

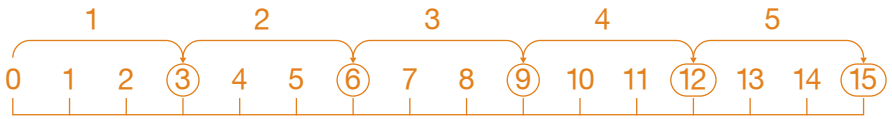
Whole class teaching

Look together at the 3 times table on the chalkboard.

Ask the pupils to write it out on a number line, circling every number they land on, and comparing it to the numbers on their chart, as shown below.

Ask pupils to number the jumps they make, from 1—5, as shown below.

Number line



Main activity

Individual task

Ask the pupils to use the multiplication table in New Method Mathematics 3, page 52 to complete the pink multiplication tables on page 54.

Plenary

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.

Explain that every third number they have to say ‘fizz’ instead of the number, ie: ‘1, 2, fizz’, ‘4, 5, fizz’, ‘7, 8, fizz’.

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: ‘How many are you counting on each time?’

Lesson title

Investigating multiplication

15 minutes

Learning outcomes

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

Add and subtract two-digit numbers.

Multiply numbers together.

Teaching aids

Before the lesson:

Prepare 20 mixed addition and subtraction sums using two-digit numbers. Make some easy sums and some difficult ones.

Read New Method Mathematics 3, page 52.

Write on the chalkboard:
4 x 3 = 3 + 3 + 3 + 3
5 x 7 = 7 + 7 + 7 + 7 + 7
3 x 6 = 6 + 6 + 6

Daily practice

Whole class teaching

Read out the questions you have prepared, one at a time, and ask the pupils to answer them without using pencil and paper.

Try to make sure that you don't always ask the first pupil to put up their hand, but wait for 2 or 3 minutes to give everyone a chance.

When they have answered, ask:

'Has anyone else got a different answer?'

'How did you work it out?'

'Did anyone else work it out in a different way?'

10 minutes	25 minutes	New Method Mathematics 3	10 minutes	Game

Introduction

Pair task

Ask the pupils to look at the sums on the chalkboard.

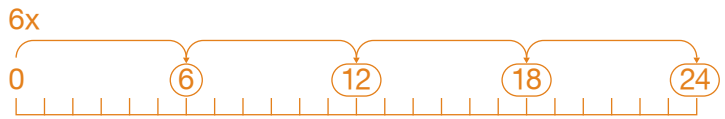
Ask each pair to tell the class anything they have learned from looking at them.

Main activity

Pair task

Ask each pair to look at the multiplication table in New Method Mathematics 3, page 52 and choose two times tables, eg: 4 and 7.

Ask them to make a number line for each, circling where they land each time, and counting the number of jumps, as shown below.



Ask them to look at the two number lines they have drawn and tell you any difference between them.

Plenary

Whole class teaching

Play ‘Fizz’ again.

Lesson title

15 minutes

Multiplication word problems

Numeracy lesson plans
Primary 3

Term 1
Creating an effective learning environment

Week 3
Multiplying 1 x 1 to 9 x 9
Day 5

Learning outcomes

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

Add and subtract two-digit numbers.

Solve multiplication problems.

Teaching aids

Before the lesson:

Prepare a sheet of paper for each group, with a number from 10—100 written in the middle.

Read New Method Mathematics 3, page 56, questions 21—25.

Daily practice

Group task

Give each group a sheet of paper with a number in the middle.

Ask them to write down as many sums as they can in 5 minutes which make that number.

Tell them they can write addition, subtraction or multiplication sums.

After 5 minutes swap the papers between the groups, so each group has a different number to work on.

Swap papers for the final time so each group works on a third number.

Share the sums with the rest of the class and check they are correct.

10 minutes	25 minutes	New Method Mathematics 3	10 minutes	Game

Introduction

Whole class teaching

Read out the following questions, one at a time, and ask pupils to work them out in their exercise books:

'A chair has 4 legs. How many legs have 7 chairs?'

'A room has 4 windows. How many windows do 6 rooms have?'

Ask the pupils to tell you how they worked out the answers.

Main activity

Individual task

Ask the pupils to complete New Method Mathematics 3, page 56, questions 21—25, using counters, the multiplication table or drawing number lines to help them.

Choose some pupils to explain to the whole class how they got their answers.

Plenary

Whole class teaching

Play 'Buzz'.

This is played the same way as 'Fizz' except that the pupils say 'buzz' instead of every fifth number, ie: '1, 2, 3, 4, buzz', '6, 7, 8, 9, buzz', '11, 12, 13, 14, buzz'.

Week 4 Symmetry

Words/phrases	Assessment
symmetry symmetrical fold tear half	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.

Lesson title

Symmetrical patterns

15 minutes | Game

Learning outcomes

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

Multiply numbers.

Explain the meaning of symmetry.

Discover the line of symmetry by folding a shape.

Teaching aids

Before the lesson:

Collect something simple to throw and catch.

Cut newspaper into different regular shapes, eg: circles, rectangles, squares. You will need at least one square and two other shapes for each pupil.

Find some string and pegs to make a washing line display.

Daily practice

Whole class teaching

Sit the pupils in a circle and throw the ball or object at one pupil.

As you throw, ask a multiplication question, eg: 3 x 4 =

Ask the pupil who catches the object to answer the question as quickly as possible and then throw the ball to someone else and make up a different multiplication sum.

If the person is struggling to answer the question, ask one of the other pupils to help.

Try to make the game run at a fast pace or the rest of the pupils will lose interest.

10 minutes

Introduction

Whole class teaching

Give each pupil a piece of newspaper cut into a square.

Ask them to fold it in half and tear out a small piece of paper from along the fold.

Ask them to open up the paper and they should find that both sides of the paper have the same shaped hole in the same place.

Explain that this is called a symmetrical pattern, because both sides of the paper look exactly the same.

25 minutes

Main activity

Pair task

Give each pair three or four different shapes cut out of newspaper and ask them to make shapes like the one they have just made, by folding their paper in half and tearing bits of paper out of them.

Ask them to show their shapes to the rest of the class.

Display them by hanging a washing line across the classroom.

10 minutes

Plenary

Whole class teaching

Give the class a number and ask the pupils to shout out as many ways as they can think of to make that number.

Lesson title

15 minutes

Line of symmetry

Numeracy lesson plans
Primary 3

Term 1
Creating an effective learning environment

Week 4
Symmetry
Day 2

Learning outcomes

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

Multiply numbers.

Work as a group to solve a 'Tangram' puzzle.

Identify shapes with lines of symmetry.

Teaching aids

Before the lesson:

Prepare a 'Tangram' for each group (see introduction).

Cut out a selection of squares, rectangles and circles.

Have ready 0—9 number cards and a 'x' card for each group.

Daily practice

Group task

Give each group a set of 0—9 number cards.

Ask each group to pick two numbers at random and arrange them either side of a multiplication sign.

Ask the pupils to make as many sums as possible from those two numbers and find their product, eg: 5 x 3 =

Ask the pupils to write down the sums and their answers in their exercise books.

Ask the pupils to tell you the highest and the lowest answer they found.

10 minutes	Puzzle	25 minutes	10 minutes

Introduction

Group task

Ask the pupils to do the ‘Tangram’ puzzle.

Divide the pupils into four groups and give each group a set of ‘Tangram’ pieces (not the animal shapes).

Ask each group to use all the shapes to make a rectangle, a triangle and a square.

Main activity

Pair task

Give the pupils a selection of shapes cut out of newspaper.

Ask the pupils to fold the square, so that the edges match together exactly. This may be across the middle or diagonally.

If the edges overlap the shapes are not symmetrical. If they match exactly the shape is symmetrical.

Explain that the place where paper is folded in half is called a line of symmetry and that a square has three lines of symmetry.

Ask each pair to fold their shapes in matching halves in as many different ways as possible.

Ask each pair to record on the table opposite how many lines of symmetry they have found on each shape.

Plenary

Whole class teaching

Ask each group to share their shapes and their table with the rest of the class.

Shape table

Shape	Number of lines of symmetry (folds)
rectangle	
square	
circle	

Lesson title

Symmetrical patterns

15 minutes | Game

Learning outcomes

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

Multiply numbers.

Identify lines of symmetry in everyday life.

Teaching aids

Before the lesson:

Prepare Chart 1 for each group for the 'Target throw' game.

Find a mirror.

Have ready a photo or picture from a magazine, newspaper or calendar for each pupil. Cut each picture in half.

Daily practice

Group task

Ask the pupils to play the 'Target throw' game in groups, recording the sums they make and the answers in their exercise books.

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**
Whole class teaching	**Individual task**	**Whole class teaching**
Explain to the pupils that there are lines of symmetry in nature, eg: Human beings have one line of symmetry, ie: down the middle of a human from top to bottom. Butterflies have one line of symmetry, ie: their wings are exactly the same on both sides. Dogs have one line of symmetry, ie: along their middle.	Explain to pupils that many people consider that symmetry is what makes nature so beautiful. Try putting a mirror along the length of and across a pupil's face and see if it is symmetrical and draw the other half so that it is symmetrical. Ask the pupils to come outside with you. Put a mirror in the middle of several objects outside to show the pupils what happens. Explain that if the reflection is exactly the same as the other half of the object, it is symmetrical.	Ask each pupil to find a leaf and fold it in half to see if it is symmetrical. Give each pupil half of a photograph or picture and ask them to put it on a page in their exercise books and draw the other half. Ask them to use a ruler to draw along the line of symmetry.	Ask each pupil to show their pictures to the class.

Lesson title

Symmetrical patterns

15 minutes | Game | New Method Mathematics 3

Learning outcomes

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

Multiply numbers.

Find lines of symmetry in letters.

Make symmetrical patterns.

Teaching aids

Before the lesson:

Draw one of the 'Tangram' animal shapes from the introduction on the chalkboard.

Write the alphabet in capital letters on the chalkboard.

Find as many mirrors as you can, so that each pair can have one.

Daily practice

Whole class teaching

Play 'Buzz'.

Ask the pupils to choose any number between 0 and 81, and write it in their exercise books.

Ask them to look at the multiplication table in New Method Mathematics 3, page 52.

Ask them to write down all the multiplication sums which make that number.

Ask them to look at the sums and see if they can tell you anything they think is interesting about them.

10 minutes	Puzzle	25 minutes	10 minutes

Introduction

Group task

Ask pupils to solve the ‘Tangram’ puzzle.

Give each group a set of seven ‘Tangram’ pieces.

Ask them to work together to make the animal shape you have drawn on the chalkboard.

The first group to make the correct shape using the seven pieces is the winner.

Repeat with a different animal shape.

Main activity

Pair task

Ask the pupils to copy the alphabet letters into their exercise books.

Ask them to work together, using a mirror if possible, to find out which letters have lines of symmetry.

Ask them to draw the line of symmetry on the letter. Remind them that some letters may have more than one line of symmetry, see below.

Line of symmetry

H

When they have completed the task, ask them these questions:

‘Are there any letters which have no lines of symmetry?’

‘Are there any letters which have more than one line of symmetry?’

‘What happened when you tried to find a line of symmetry in the letter O?’

Ask them to write the numbers 1—50 and see if they have any lines of symmetry, see below.

Line of symmetry

33

Plenary

Whole class teaching

Sit the pupils in a circle and give them a ball or a simple object to throw.

Ask the pupils to throw the ball to someone and give them a sum to answer.

When the pupil has answered it, ask them to think of a sum to pass on to someone else.

Continue for four or five throws.

Numeracy lesson plans
Primary 3

Term 1
Creating an effective learning environment

Week 4
Symmetry
Day 5

Lesson title

Symmetrical patterns

15 minutes

Learning outcomes

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

Multiply numbers.

Make symmetrical patterns.

Identify lines of symmetry.

Teaching aids

Before the lesson:

Have ready sets of 0—9 number cards.

Daily practice

Group task

Give each group a set of 0—9 number cards.

Ask each group to pick two numbers at random.

Ask the pupils to make as many sums as possible and find their product, eg:
8 x 3
2 x 4

Ask the pupils to write down the sums and their answers in their exercise books.

10 minutes

25 minutes

10 minutes

Introduction

Whole class teaching

Ask pupils to tell you anything that they have learned about symmetry during the week.

Write their ideas on the chalkboard.

Main activity

Pair task

Ask one pair to stand up opposite each other.

Ask one member of the pair to make a shape and the other to copy that shape exactly, so that they are making one symmetrical shape.

Have a look at the shape with the rest of the class and ask them to say where the line of symmetry is in the shape.

If the shape is not symmetrical, ask someone to move one of them so that they are making a symmetrical shape.

Repeat with three or four different pairs.

Ask each pupil to draw half of a picture in their partner's exercise book.

Ask the other person to complete the picture so it is symmetrical, and draw the line of symmetry.

Ask each pair to write a symmetrical line of numbers, see below.

Line of symmetry

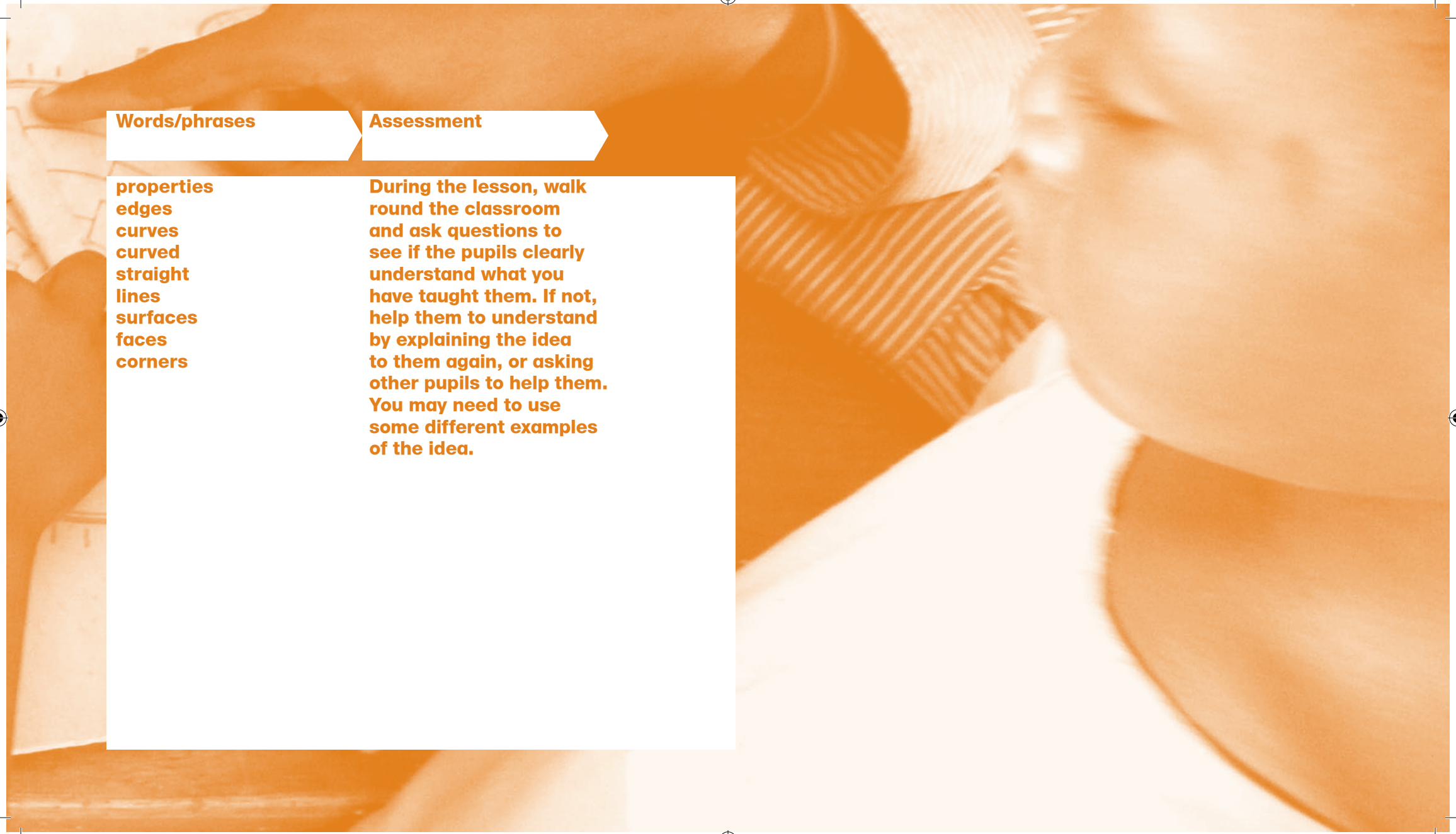
80088 | 88008

Plenary

Whole class teaching

Ask each pair to share their work with the rest of the class.

Week 5 Properties of shapes



Words/phrases	Assessment
properties edges curves curved straight lines surfaces faces corners	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.

Lesson title

15 minutes

Numeracy lesson plans
Primary 3

Term 1
Creating an effective learning environment

Week 5
Properties of shapes
Day 1

Curved and straight lines

Learning outcomes

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

Count numbers in Hundreds, Tens and Units.

Distinguish between curves and straight lines.

Teaching aids

Before the lesson:

Have ready sets of 0—9 number cards.

Daily practice

Whole class teaching

Write a selection of random numbers on the chalkboard and ask a pupil to come out and circle five numbers.

Give the pupils 5 minutes to make as many three-digit numbers as they can with those numbers.

Ask them to write the numbers in order, from the highest to the lowest.

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**

Whole class teaching

Take the pupils outside and ask them to say which objects have curved lines and which have straight lines.

Pair task

Give each pair a stick and ask them to draw patterns of straight lines in the ground.

Ask each pair to make patterns of curves in the ground.

Ask the pupils if they can explain the difference between a curve and a straight line.

Individual task

Take the pupils inside and ask them to think of an object to draw that has both straight and curved lines.

Ask them to draw the object in their exercise books and label the straight lines 'straight' and the curved lines 'curved'.

Whole class teaching

Ask the pupils to show their pictures to the rest of the class, identifying curved and straight lines.

Discuss the difference between a curve and a straight line.

Lesson title

Curves and straight lines

15 minutes

Learning outcomes

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

State the place value of a digit in three-digit numbers.

Classify shapes according to their properties.

Teaching aids

Before the lesson:

Collect real objects that have a mix of curved and straight lines, eg: box of sugar, matches, toothpaste, milk tin.

Make a set of flash cards for each group, ie: 'curved lines' and 'straight lines'.

Daily practice

Whole class teaching

Ask the pupils to help you expand 536 into Hundreds, Tens and Units, ie: 536 = 500 + 30 + 6.

Ask the pupils to state the place value of each digit in the following numbers, and then expand the number into Hundreds, Tens and Units:
324
425
672
123
691
801

Discuss their answers.

10 minutes	25 minutes	10 minutes	Game

Introduction

Whole class teaching

Draw two columns on the chalkboard. Label one column ‘straight lines’ and label the other ‘curved lines’.

Ask the pupils to mention some examples of straight lines and curves in every-day life and ask them which column you should write them in, eg:

a rainbow

the line between the wall and the floor of a house

a tight rope pulling a cow

a tin of milk.

Ask the pupils to think about each thing you have written and say why they are straight or curved.

Main activity

Group task

Place the objects on the table. Ask pupils to sort them into groups of straight or curved lines and put them into labelled columns.

Ask the pupils to say how many curved objects they have, and how many straight ones they have.

Ask the pupils to look again at their objects and arrange them into groups that have:

1. Straight edges and corners.

2. Curved edges only.

Plenary

Whole class teaching

Play ‘Buzz’ with the pupils.

Lesson title

Drawing objects

15 minutes

Learning outcomes

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

State the place value of a digit in three-digit numbers.

Identify the properties of solid shapes.

Teaching aids

Before the lesson:

Have ready the selection of objects that you collected for Day 2.

Copy the properties of 3D shapes, shown opposite, on to the chalkboard.

Daily practice

Whole class teaching

Ask the pupils to stand in a circle.

Tell the pupils the following:

'A clap of the hands represents Hundreds.'

'A click of the fingers represents Tens.'

'A stamp of the feet represents Units.'

Say a three-digit number and ask a pupil to represent that number using claps, clicks and stamps, eg: 246 would be 2 claps, 4 clicks and 6 stamps.

Ask that pupil to say another number for someone else.

Continue until everyone has had a turn.

10 minutes

Introduction

Whole class teaching

Show the pupils an object with a flat surface, then another with a curved surface.

Ask the pupils to pick out other objects with flat surfaces or curved surfaces from the objects on their table.

Show the pupils an object and explain that it has surfaces, edges and vertices (corners). A sphere has no edges or corners.

Ask them to help you find one example of a surface, an edge and a corner.

25 minutes

Main activity

Group task

Ask each group to put each object on their table into one of three sets, ie: all flat surfaces, all curved surfaces, flat and curved surfaces.

Ask the pupils to pick some 3D shapes and draw them in their exercise books.

Ask them to label edges, surfaces and vertices (corners).

Ask the pupils to complete the properties of 3D shapes in their exercise books.

10 minutes

Plenary

Whole class teaching

Choose some pupils to show their drawings to the class.

Properties of 3D shapes

A cuboid has ☐ edges.
A cube has ☐ corners.
A cylinder has ☐ curved edge.
A cylinder has ☐ faces.

Lesson title

Counting edges and corners

15 minutes

Learning outcomes

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

Compare pairs of numbers using the symbols < and >.

Create patterns with shapes.

Teaching aids

Before the lesson:

Have ready circular objects for the pupils to draw around and a straight-edged object to help them draw straight lines.

Daily practice

Whole class teaching

Give the pupils pairs of numbers, one at a time and ask them to write them down, using the > and < symbols to order them, eg: 354 > 215

Ask them to tell you how they decided which one was the smallest number.

Remind them that they should first of all compare the Hundreds, then the Tens and then the Units to see which number is greater.

Give pupils the following pairs of numbers and ask them to say which is greater than the other, eg:
231 and 272
567 and 548
333 and 337
498 and 492

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**
Whole class teaching	**Individual task**	**Whole class teaching**
Ask the pupils to identify any circular and triangular shapes in the classroom.	Ask the pupils to use circular tins and coins to draw circles in their exercise books. Ask them to use a ruler or other straight object to draw triangles of different sizes in their exercise books. Ask the pupils to design a pattern using circles and triangles.	Ask the pupils to show their pattern to the class.

Lesson title

Counting shapes, edges and surfaces

15 minutes

Learning outcomes

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

Identify the properties of solid shapes.

Complete a table to sort information.

Teaching aids

Before the lesson:

Have ready the selection of objects that you collected for Day 2.

Draw the table opposite on the chakboard.

Daily practice

Whole class teaching

Give the pupils the following list of numbers. Ask them to write them in order using the system they learned during Day 4:

333
765
334
569
785
669
529
444

10 minutes	25 minutes	10 minutes

Introduction

Whole class teaching

Show the pupils a shape and ask them to identify: faces, edges, corners and curved surfaces.

Ask pupils to tell you how many of each their shape has.

Explain how to use the table on the chalkboard.

Main activity

Group activity

Give each group a selection of objects.

Tell them to do their own work but help each other.

Ask them to copy the table, putting the name of their objects in the column ‘solid name’ instead of the ones written on the chalkboard.

Ask pupils to complete the table for their objects.

Plenary

Whole class teaching

Draw the table on the chalkboard and ask pupils to help you complete it using their answers.

Table

Solid name	Number of curved surfaces	Number of edges	Number of faces
Dice			
Sugar box			
Omo box			
Milo tin			
Ball			

Credits

In 2008, Kwara State carried out a Teachers' Development Needs Assessment for all primary school teachers. This showed that most teachers in Kwara State did not have strong literacy and numeracy skills. The Kwara State Government responded by developing a strategy to support existing teachers and improve new teachers' pre-service training.

These literacy and numeracy lesson plans, developed by the Kwara State School Improvement Team, were part of that strategy. Two years after introducing these plans alongside the training and support programme, Kwara State began to see strong improvements in teachers' teaching skills and pupils' learning outcomes.

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