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Type of lesson plans/
Grade

Term/
Learning theme

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Weeks
16—20

Numeracy lesson plans Primary 1 Term 2 Creating opportunities for classroom talk

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

Introduction

Teacher training remains a key element in improving schools and increasing learning outcomes. Where teachers are not supported, there may be high rates of teacher absenteeism, pupil drop out and apathy from parents. Jigawa State Ministry of Education, Science and Technology and the State Universal Basic Education Board (SUBEB) are working with the UK Department for International Development (DFID) and Education Sector Support Programme in Nigeria (ESSPIN) to increase the capacity of teachers and school heads to be effective and accountable.

Following the 2010 Teacher Development Needs Assessment, we collectively embarked on a series of reforms to strengthen teacher quality and school leadership. This work has focused on how to make teaching child-centred, and the organisational structures needed to improve service delivery.

These lesson plans are not designed to replace professional teachers' preparations. They address gaps in linking theory and practice and focus on improving pupils' literacy and numeracy through a step-by-step guide for teachers, while ensuring children that become active learners. Alongside the plans, new structures and processes ensure that teachers are continuously supported by both the State School Improvement Team (SSIT) and the LGEA-based school support officers (SSOs).

I am confident that with correct implementation and targeted support, these lesson plans will raise standards and improve the quality of teaching and learning outcomes.

The Ministry of Education, Science and Technology appreciates all those who have worked hard to produce these lesson plans and train our teachers to use them. Specifically, I offer thanks to DFID for its ongoing support through the ESSPIN programme.

Professor Haruna Wakili
Honourable Commissioner,
Ministry of Education,
Science and Technology,
Jigawa State

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Weeks
16—20

Introduction
Creating opportunities for classroom talk

Classroom talk

In any classroom, the pupils should do most of the talking, not the teacher. If pupils have the chance to talk they will quickly improve their language skills.

They should experience lots of different types of talk, in pairs, small groups, and within the whole class, eg:

Having conversations between themselves and with adults in the school.

Asking questions of each other and of the adults in the school.

Answering questions.

Expressing opinions.

Explaining how to do something.

Giving instructions.

Solving problems.

Designing ways of recording findings.

Carrying out investigations into numbers.

Sharing ideas.

Singing songs.

Saying rhymes.

These are all included in the numeracy lesson plans.

Here are some ideas to help you encourage all pupils to join in classroom talk:

Ask questions which have lots of different answers and can be answered by individuals, not the whole class at the same time.

When you ask a question, count to 15 in your head before you choose someone to answer. This gives all pupils the chance to think of something to say, not just the ‘quick thinkers’.

When you ask a question, give the pupils 2 or 3 minutes to discuss the answer with a partner before putting their hands up.

When you ask a question, give the pupils 2 or 3 minutes to write the answer in their exercise books and then ask random pupils. This makes all pupils try to think of the answer.

Sit the pupils in a circle and ask them a question which has lots of different answers. Go around the circle and ask every pupil to answer.

Numeracy lesson plans
Primary 1

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16—20

Introduction

Essential low-cost or free teaching aids

Place value cards

Use card to construct the cards pictured below.

If possible, make one set per pair of pupils.

You could also make one large class set.

How to use the place value cards

Place a Unit card on top of a Ten card, eg: 5 on top of 40 makes 45. Explain this is 4 Tens and 5 Units making 45.

Repeat several times making new two-digit numbers.

Dictate a number to pupils. Ask them to make that number using cards.

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

Ask the pupils to make a two-digit number with:
4 Tens and 8 Units,
3 Tens and 9 Units,
7 Tens and 0 Units, etc.

Each time they make a new number ask them:
'What number have you made?'

Ask:
'What is the 7 worth in 73?'
'What is the 3 worth in 73?',
etc.

When they are confident with two-digit numbers, repeat the process for three-digit numbers.

1 set 100—900 | 1 set 10—90 | 1 set 0—9

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 the fractions:
$\frac{1}{4}$ $\frac{1}{2}$ $\frac{3}{4}$

Pupils could make their own.

Halves and quarters

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

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Introduction

Songs and rhymes for the term

Counting song

1 little,
2 little,
3 little fingers /
4 little,
5 little,
6 little fingers /
7 little,
8 little,
9 little fingers /
10 little fingers.
(clap, clap, clap)

10 soldiers on parade

10 tall soldiers
Standing in a row /
9 stood up
And 1 lay low /
Along came the sergeant
And what do you think? /
Up popped the other one,
quick as a wink /
9 tall soldiers...

(Ask pupils to repeat
the song until no soldier
is left on roll.)

10 green bottles

10 green bottles standing
on the wall (x2) /
If 1 green bottle should
accidentally fall /
There'd be 9 green bottles
standing on the wall /
9 green bottles standing
on the wall...

(Repeat until no more
bottles are left standing.)

5 long yams

5 long yams in
a farmer's field /
Round and fat, and ready
to be picked /
Along came (sing the
name of a pupil) with a hoe
one day /
Picked a yam and took
it away.

4 long yams...
3 long yams...
2 long yams...
1 long yam...

5 little monkeys

5 little monkeys jumping
on the bed /
1 fell off and bumped
his head /
Mummy called the doctor,
The doctor said /
'No more monkeys jumping
on the bed'.

4 little monkeys...
3 little monkeys...
2 little monkeys...
1 little monkey...

5 little ducks

5 little ducks went
swimming one day /
Over the hills and far away /
Mummy duck called, 'quack,
quack, quack, quack,' /
But only 4 little ducks
came back.

4 little ducks...
3 little ducks...
2 little ducks...
1 little duck...

Week 16 Fractions

Words/phrases	Assessment
half quarter fold divide equal share	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

Halves

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 16
Fractions
Day 1

Learning outcomes

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

Order coins according to value.

Exchange larger coins for smaller coins adding up to the same value.

Say that, when an object is divided into two equal parts, each part is described as a half.

Teaching aids

Before the lesson:

Collect some coins, or bottle tops with coin values written on them for each group.

Cut paper into squares, rectangles and circles for each pupil.

Bring an apple and a knife to cut.

Read Macmillan New Primary Mathematics 1, page 49.

Daily practice

Group task

Give each group a selection of coins and ask them to arrange them in order of value, starting with the smallest.

Ask pupils to change 50k into 10k coins.

Ask them if they can suggest other ways of making 50k.

Write two or three pupils' suggestions on the chalkboard and ask the class to use their coins to show you on their tables.

Ask pupils to write down as many ways as they can think of to make 10k, eg: 10k = 5k + 5k

Ask them to repeat this to make 25k.

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**
Whole class teaching	**Whole class teaching**	**Individual task**	**Whole class teaching**
Explain that when something is divided into two equal-sized parts, each part is called a **half**.	Draw a circle on the chalkboard and divide it in half.	Give each pupil a circle, a rectangle and a square.	Hold up the apple and ask pupils: 'How many people can have an equal share if you divide this apple into halves?'
Demonstrate by cutting a circle in half.	To reinforce that each part is the same size, write $\frac{1}{2}$ on each part.	Demonstrate how to fold a shape in half.	Cut it in half.
Hold up the two halves, place one on top of the other, and show pupils that they are exactly the same size.	Draw a square on the chalkboard and ask a pupil to divide it in half.	Unfold your shape and show the class the dividing line left by the fold.	Hold the two halves together again and tell pupils that two **halves** make one whole.
	Ask another pupil to label each part $\frac{1}{2}$	Ask the pupils to carefully fold their circle in half.	
	Repeat the task with a rectangle.	Ask them to unfold the circle and draw a line down the dividing line.	
		Ask them to label each part of the circle $\frac{1}{2}$	
		Ask them to repeat this task with the square and rectangle shapes.	

Lesson title

Halves

15 minutes

Learning outcomes

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

Add money for amounts no greater than 20k.

Divide a shape in half.

Teaching aids

Before the lesson:

Read Macmillan New Primary Mathematics 1, pages 49—50.

Make some cards with different amounts of money written on them.

Collect coloured pencils, scissors, newspapers and used paper.

Collect items such as empty packets of Omo, empty tins of Geisha, empty packets of sugar, etc, and label each item with a price.

Daily practice

Pair task

Give several pairs a variety of shop items to share.

Ask one pupil in each pair to select items to buy, add up the total amount and pay (must be 20k or less).

Repeat the task several times with the pupils swapping roles.

10 minutes	25 minutes		10 minutes	
Introduction	**Main activity**		**Plenary**	
Whole class teaching	**Individual task**	**Group task**	**Whole class teaching**	
Using newspaper or used paper, demonstrate how to fold a page in half.	Give individuals a page of newspaper.	Give each group three shapes (circle, square, and rectangle).	Draw some shapes on the chalkboard and draw a line to divide them into two parts. Make some of the parts equal and others unequal.	Ask the pupils to identify those shapes that are divided in half and those that are not.
Draw a line down the crease.	Ask pupils to fold the page in half and draw a line down the crease.	Ask pupils to draw round each shape in their books.		Ask them to explain how they know. (They should tell you that only the shapes with two equal parts are divided in half.)
Label each part $\frac{1}{2}$		Ask them to divide each shape in half and colour one half.		Remind the class that to be a half, both parts must be the same size.
		Ask pupils to label each part $\frac{1}{2}$		
		Ask them to suggest a reason for dividing objects in half.		

Lesson title

Half of whole numbers

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 16
Fractions
Day 3

Learning outcomes

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

Understand that the same amount of money can be formed using a variety of coins.

Divide a number of objects into halves.

Teaching aids

Before the lesson:

Collect many empty packets, boxes, tins, etc, and label each item with a price, eg: 1k, 5k and 10k

Daily practice

Group task

Place a variety of shopping items on each group's table.

Tell them they have 15k to spend.

As a group they need to find as many different ways as possible of spending their 15k using the labelled items.

Ask them to draw each solution in their books and write the price underneath each item.

10 minutes

Introduction

Whole class teaching

Ask two pupils to come out and stand facing the class, shoulder to shoulder.

Stand in between them, dividing them in half. You now have one pupil on each side of you.

Tell the pupils that you have divided 2 in half, and you now have 1 on each side of you, ie: half of 2 is 1.

Now ask four pupils to stand shoulder to shoulder.

Ask them to say how many will be on each side of you if you divide them in half.

Remind them that there must be the same amount on each side.

Ask pupils:
'What is half of 4?'

Repeat the task with six, eight and 10 pupils standing shoulder to shoulder.

25 minutes

Main activity

Whole class teaching

Draw a line of four squares on the chalkboard, as shown below.

Ask pupils where you would need to draw a line to divide them in half. (It is the same as when you stood in the middle of the pupils.)

Ask a pupil to come and draw the line.

Say that there are the same numbers of squares on each side of the line.

Ask pupils:
'What is half of 4?'

Line of four squares

Individual task

Ask pupils to draw a row of six circles, 10 crosses and eight flowers in their books.

Ask them to divide each line in half.

Ask them to write:
$\frac{1}{2}$ of 6 = 3, etc.

10 minutes

Plenary

Whole class teaching

Ask the whole class what half of 10k is.

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 16
Fractions
Day 4

Lesson title

Quarters

15 minutes

Learning outcomes

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

Say which coins can be used to make different amounts of money.

Say that when an object is divided into four equal parts, each part can be described as a quarter.

Divide shapes into quarters.

Teaching aids

Before the lesson:

Prepare many paper circles, rectangles and squares.

Have ready an apple or orange, a knife and coloured pencils.

Collect a few pairs of scissors.

Read Macmillan New Primary Mathematics 1, pages 50—52.

Daily practice

Whole class teaching

Ask the pupils to tell you how many 10k coins there are in 1 Naira.

Ask them to tell you how many 10k coins there are in:
80k
20k
40k
70k

Ask them to tell you which coins they would use to make the following amounts:
63k
25k
72k
49k
23k

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

Whole class teaching

Show the class the apple/orange and say it is a whole fruit.

Cut it in half and ask the pupils what you have done.

Tell them that you are going to cut each piece in half again.

Ask pupils how many pieces you will have.

Demonstrate cutting the halves in half again.

Show them the four equal parts and tell them that each part is called a quarter.

On the chalkboard show pupils how to write $\frac{1}{4}$

Take a paper circle and remind them how to fold it in half, and then fold it in half again.

Open up the circle and show them the lines dividing it into four quarters.

Individual task

Give each pupil a paper circle, square and rectangle.

Tell them to divide the shapes into quarters by folding them in half and in half again.

Ask them to draw lines to show the quarters.

Ask them to write $\frac{1}{4}$ in each part.

Ask them to colour in one quarter of each shape.

Group task

Ask them:
'How many people can have an equal share of an apple divided in half?'

Ask them:
'How many people can have an equal share of an apple divided into quarters?'

Lesson title

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 16
Fractions
Day 5

Halves and quarters

Learning outcomes

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

Understand how to total 25k using a variety of different smaller coins.

Draw shapes and divide them into quarters.

Solve simple problems with quarters.

Write fractions such as $\frac{1}{4}$

Teaching aids

Before the lesson:

Collect square, rectangular and circular containers for pupils to draw round.

Collect coloured pencils.

Daily practice

Individual task

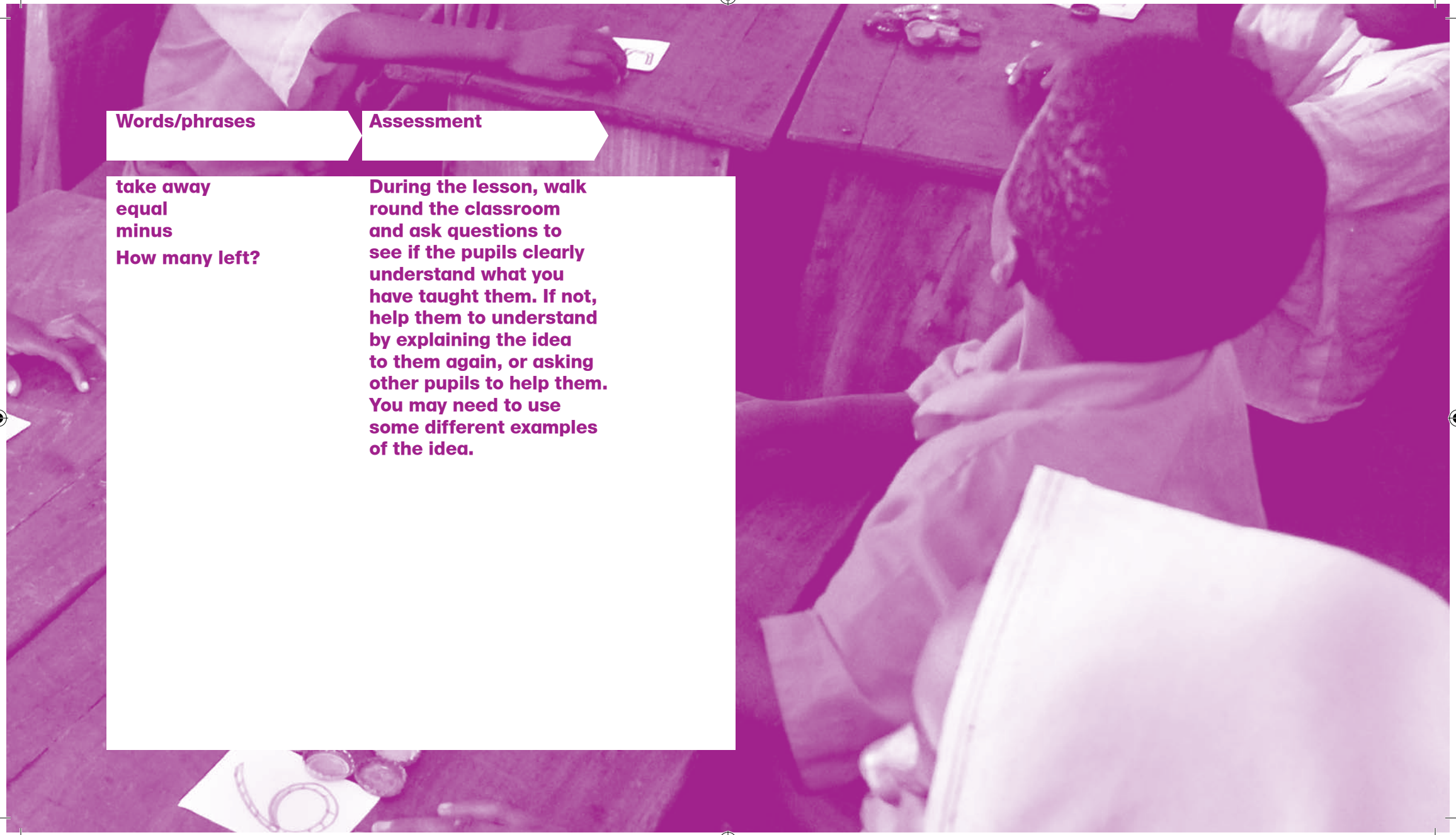
Ask pupils to record in their books, all the different ways they can find of making 25k, eg:

10k + 10k + 5k

1k + 1k + 1k + 1k + 1k + 1k + 1k + 1k + 1k + 1k + 15k

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**
Whole class teaching	**Individual task**	**Whole class teaching**
Remind pupils of how to fold a shape into quarters by demonstrating.	Ask them to draw round each shape onto paper or newspaper. Ask pupils to divide each shape into quarters by folding in half and in half again. Ask them to write $\frac{1}{4}$ in each part. Ask them to colour one quarter of each shape. Ask them to carefully tear out one quarter of each shape.	Ask pupils: 'How many quarters are left if you cut one out and remove it?' Ask: 'How many quarters make one whole?' Ask: 'How many halves make one whole?'

Week 17 Subtraction



Words/phrases	Assessment
take away equal minus How many left?	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 1

Term 2
Creating opportunities for classroom talk

Week 17
Subtraction
Day 1

Introducing subtraction

Learning outcomes

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

Divide a whole into halves.

Carry out simple subtraction.

Teaching aids

Before the lesson:

Provide pieces of regular-shaped paper for the pupils to fold.

Provide a selection of objects and counters.

Collect/make number cards from 1—10 for each group.

Daily practice

Pair task

Give each pair a whole piece of paper and ask them to fold it to make two equal sections.

Ask them to discuss in their pairs, what fraction of the whole piece each section is.

Ask them to colour a half and write $\frac{1}{2}$ on each half.

10 minutes	Rhyme	25 minutes			10 minutes	Rhyme

Introduction

Whole class teaching

Ask the pupils to tell you what a monkey is, in their local language.

Teach them the rhyme '5 little monkeys' and then say it altogether.

Bring pupils out to play the part of the monkeys, acting out the rhyme as you say it.

Main activity

Whole class teaching

Ask five pupils to stand in front of the class.

Ask the rest of the class: 'How many pupils are standing?'

Ask one pupil to sit down, then ask: 'How many are standing now?'

Repeat twice with different numbers of pupils.

Repeat twice more, this time, taking different numbers of pupils away.

Group task

Give each group a set of number cards from 1—10 and a set of counters.

Ask them to make two piles. In one pile there should be numbers greater than 5 and in the other pile, numbers less than 5.

Ask each group to pick a card from the pile with the numbers greater than 5 and collect that number of counters.

Ask them to pick a card from the other pile and take that number of counters away from the rest.

Ask pupils to count how counters they have left and put the correct number card by the pile.

Ask them to repeat the game until everyone has had a turn.

Plenary

Whole class teaching

Say '10 soldiers on parade' and choose 10 children to come out and act out the rhyme.

Lesson title

How many are left?

15 minutes

Learning outcomes

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

Answer simple questions about fractions.

Carry out simple subtraction activities.

Teaching aids

Before the lesson:

Collect a set of 10 objects or counters for each group.

Read Macmillan New Primary Mathematics 1, page 63.

Daily practice

Group task

Ask each group to discuss and answer the following questions:

'If two boys share one orange equally, what fraction will be given to each of them?'

'If four boys share a whole orange equally, what fraction is given to each pupil?'

'One half and one half make how many?'

'One whole orange is shared equally among four pupils. How much will each pupil get?'

10 minutes	Song	25 minutes	Macmillan New Primary Mathematics 1	10 minutes	Rhyme

Introduction

Whole class teaching

Sing ‘5 little ducks’ and ‘10 green bottles’ with the actions.

Ask pupils to count the fingers on their left hand and tell you how many there are.

Ask them to bend their left thumb down, so it is hidden and ask them: ‘How many fingers can you see now?’

Ask seven pupils to come out. Ask the class: ‘How many pupils are standing?’

Ask four of them to sit down while the remaining three pupils keep standing.

Ask them:
‘How many sat down?’
‘How many are left?’

Main activity

Group task

Give each group 10 objects and number cards from 1—10.

Ask them to count the number of objects and answer the question: ‘How many are there?’

Shout out a number less than 10 and ask them to take away that number of objects.

Ask each group to hold up the card with the number of objects they have left written on it.

Repeat three or four times with different numbers.

Whole class teaching

Ask the pupils to look at Macmillan New Primary Mathematics 1, page 63.

Ask them to look at a. Eggs and count the number of eggs.

Ask individual pupils:
‘How many are whole?’
‘How many are broken?’

Go through b. Bananas in the same way.

Plenary

Whole class teaching

Say the rhyme and do the actions to ‘5 little monkeys’ with the pupils.

Lesson title

15 minutes | Macmillan New Primary Mathematics 1

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 17
Subtraction
Day 3

Writing subtraction sums

Learning outcomes

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

Identify fractions of a given shape.

Recognise the minus sign −.

Do simple subtraction sums using the minus sign.

Teaching aids

Before the lesson:

Provide counters.

Read Macmillan New Primary Mathematics 1, page 54.

Read Macmillan New Primary Mathematics 1, page 63.

Daily practice

Individual task

Ask the pupils to copy the pictures in Macmillan New Primary Mathematics 1, page 54 into their exercise books and colour the fraction of each shape stated on the page.

10 minutes	25 minutes	Macmillan New Primary Mathematics 1	10 minutes	Song

Introduction

Whole class teaching

Draw five circles on the chalkboard.

Ask the pupils:
'How many circles?'

Write that number underneath the circles.

Cross out three circles and ask the pupils:
'How many circles have I crossed out?'

Write their answer on the chalkboard and correct if necessary.

Ask them:
'How many full circles are left?'

Write that number on the chalkboard.

Write it as a sum:
5 – 3 = 2

Explain that the – sign says 'take away' so the sum can be read as:
'5 take away 3 equals 2'.

Do another example on the chalkboard in the same way.

Do a third example, this time asking one or two pupils to come out and write the sum on the chalkboard as you do it.

Main activity

Whole class teaching

Ask the pupils to look at Macmillan New Primary Mathematics 1, page 63 and talk them through examples c—d.

Write the following sums on the chalkboard and ask the pupils to solve them using counters to help them:
5 – 2 =
6 – 4 =
8 – 4 =

Plenary

Whole class teaching

Sing '5 long yams'.

Lesson title

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 17
Subtraction
Day 4

Number line subtraction

Learning outcomes

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

Write fractions as $\frac{1}{2}$ and $\frac{1}{4}$

Jump forwards and backwards on a number line.

Perform subtractions of numbers 0—10 on a number line.

Teaching aids

Before the lesson:

Collect enough counters for each pair to have 10.

Read Macmillan New Primary Mathematics 1, page 63.

Have ready a paper rectangle and circle for each pupil.

Daily practice

Individual task

Ask each pupil to fold a rectangular piece of paper in half.

Ask them to fold a circular piece of paper into quarters.

Ask them to label the correct sections $\frac{1}{2}$ and $\frac{1}{4}$

10 minutes	25 minutes	Macmillan New Primary Mathematics 1	10 minutes	Song

Introduction

Whole class teaching

Write the − sign on the chalkboard and ask the pupils to tell you what it means.

Do two examples on the chalkboard to show them how to take away one number from the other using a number line.

Main activity

Pair task

Ask them to complete the task in Macmillan New Primary Mathematics 1, page 63, e—h, using counters to help them.

Plenary

Whole class teaching

Ask the pupils to choose a counting song to sing.

Lesson title

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 17
Subtraction
Day 5

Practising subtraction

Learning outcomes

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

Divide whole numbers in half.

Take away one number from another and record their answer.

Teaching aids

Before the lesson:

Find 12 counters for each pair of pupils.

Prepare a set of number cards from 1—10 for each pair of pupils.

Prepare a set of symbol cards for each pair, ie: – and =.

Daily practice

Pair task

Give each pair 12 counters.

Ask pupils to divide their counters into two equal piles and tell you how many are in each pile.

Tell them that they have divided the counters in half.

Ask pupils to divide the following numbers in half in the same way, and write the answer as below:

$\frac{1}{2}$ of 12 = 6 $\frac{1}{2}$ of 6 =

$\frac{1}{2}$ of 10 = $\frac{1}{2}$ of 4 =

$\frac{1}{2}$ of 8 = $\frac{1}{2}$ of 2 =

Ask them if they can see anything special about the answers (the numbers decrease in twos and the answers in ones).

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**
Whole class teaching	**Pair task**	**Individual task**
Sit the pupils in a circle and ask them to tell you anything they have learned this week.	Give each pair a set of number cards from 1—10 and symbol cards. Ask each person in the pair to turn over a number card. Ask them to decide which card is the biggest number. Ask them to use counters to take away the smallest number from the biggest number. Tell pupils to record the sum using the number and symbol cards. Ask pupils to copy it into their exercise books. Tell them to repeat the game until they have completed 10 sums.	Give the pupils some subtraction questions and ask them to tell you the answer, using counters to help them if they wish.

Week 18 Subtraction

Words/phrases

take away
subtraction
minus

How many less than?

How many jumps?

How many are left?

What's the difference?

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.

Lesson title

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 18
Subtraction
Day 1

Subtraction using a number line

Learning outcomes

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

Know some different terms meaning ‘take away’.

Do subtraction sums.

Teaching aids

Before the lesson:

Make flash cards with different words meaning subtraction:
‘Take away’
‘What’s the difference?’
‘subtraction’
‘minus’
‘How many less than?’

Draw a number line from 0—10 on the chalkboard and have ready a 0—10 number line for each pair.

Find 10 counters for each pair of pupils.

Daily practice

Pair task

Give each pair 10 counters.

Ask one member of each pair to take four counters away and the second pupil to say how many counters are left.

Ask them to say the sum they have done, using the term take away, eg: 10 take away 4 equals 6.

Ask them to exchange roles and repeat the activities, using different numbers.

10 minutes | 25 minutes | 10 minutes | Rhyme

Introduction

Whole class teaching

Ask 10 pupils to come out and stand at the front.

Ask if anyone can take away three pupils and tell you how many are left.

Ask the rest of the pupils to try and write the sum in their exercise books:
10 – 3 = 7

Repeat with different sums.

Read and show the flash cards quickly to the pupils, and explain that these are all terms for subtraction.

Main activity

Whole class teaching

Explain that you are going to show them how to use a number line to subtract one number from another.

Write the following sum on the chalkboard:
5 – 1 =

Put your finger on the number 5 and count 1 jump backwards, ie:

Ask the pupils to say which number you have landed on.

Show the pupils how to write the sum, ie:
5 – 1 = 4

Repeat with different sums, asking the pupils to make the jumps with their fingers.

Give the pupils 0—10 number lines to use.

Set them the following questions, telling them to use the number line to find the answers:
4 take away 1
6 take away 2
8 take away 4
8 take away 5

Ask them to tell you their answer after each question.

Plenary

Whole class teaching

Say ‘5 little monkeys’ with the pupils.

Lesson title

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 18
Subtraction
Day 2

Subtraction using a number line

Learning outcomes

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

Use some different terms meaning take away.

Use a number line to subtract two numbers between 0—10.

Teaching aids

Before the lesson:

Collect the flash cards with the different terms for subtraction.

Collect counters.

Read Macmillan New Primary Mathematics 1, page 63, questions i—l.

Have ready a 0—10 number line for each pair.

Daily practice

Whole class teaching

Quickly flash the cards with the different terms for subtraction.

Remind pupils that they are all different terms for take away.

Ask them the following questions using the different terms and see if they can work out the answers using counters:

'What is the difference between 3 and 1?'

'Subtract 1 from 3.'

'3 take away 1 equals what?'

'How many less than 3 is 1?'

'3 minus 1 equals what?'

10 minutes		25 minutes	Macmillan New Primary Mathematics 1	10 minutes

Introduction

Whole class teaching

Give the pupils 0—10 number lines.

Remind the pupils how to jump backwards on the number line, by asking them to put their fingers on number 8 and jump backwards 3 places on the number line.

Ask if anyone can help you write the sum on the chalkboard:
8 – 3 = 5

Repeat with different numbers.

Main activity

Group task

Ask the pupils to complete the task in Macmillan New Primary Mathematics 1, page 63, questions i—l, using a number line to help them.

Plenary

Whole class teaching

Ask all pupils to exchange their work with another person for checking.

Lesson title

Subtraction using a number line

15 minutes | Game

Learning outcomes

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

Subtract numbers using a number line.

Teaching aids

Before the lesson:

Find a die, two coloured pencils and two coloured counters for each pair of pupils.

Draw the ladder shown right on the chalkboard.

Read Macmillan New Primary Mathematics 1, page 63, questions m—p.

Daily practice

Pair task

Ask pairs of pupils to play a game.

Give each pair two different coloured counters and a die and ask them to copy the ladder into one of their exercise books.

Ask each of them to choose a different coloured counter and put it on number 10.

Ask one pupil in each pair to roll the die and move their counter the number of spaces on the ladder.

Tell the second one to do the same.

Ask them to continue taking turns, until one of them reaches the number one.

Tell them to play the game again.

10 minutes	25 minutes	Macmillan New Primary Mathematics 1	10 minutes	Song

Introduction

Whole class teaching

Ask the pupils to tell you some words or phrases which mean subtraction.

Ask individual pupils to use each one in a question.

Ask the rest of the class to use their number lines to answer the question.

Main activity

Pair task

Ask the pupils to work together to complete Macmillan New Primary Mathematics 1, page 63, questions m—p.

Help them to draw number lines in their books to help them answer each question.

Plenary

Whole class teaching

Sing ‘5 little ducks’ with the pupils.

Number ladder

10 start
9
8
7
6
5
4
3
2
1 finish

Lesson title

Missing numbers

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 18
Subtraction
Day 4

Learning outcomes

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

Use a number line to do subtraction using numbers 0—10.

Find missing numbers in subtraction sums.

Teaching aids

Before the lesson:

Write subtraction sums, using different terms for subtraction, on 10 pieces of card and display them around the classroom.

Make sure that each card has a different answer between 1 and 10.

Provide counters.

Daily practice

Group task

Ask each group to send one person to collect a sum card, bring it back to the group and solve the sum, copying it into one exercise book and writing the answer.

Ask them to continue until they have solved all 10 sums.

10 minutes	25 minutes	10 minutes

Introduction

Whole class teaching

Ask the pupils to show you how to complete the following sums using a number line:

10 – 3 =

7 – 5 =

3 – 2 =

Main activity

Whole class teaching

Ask the pupils to draw a number line from 0—10 in their exercise books.

Ask them to put their fingers on the number 5 and jump back to number 3, counting the number of jumps.

Ask them:
'How many jumps did you take?'

Ask the class to repeat for the following numbers, saying after each one how many jumps they have taken:

6 to 2

8 to 7

4 to 1

10 to 1

9 to 5

Explain that these can be written as:

6 – ☐ = 2

8 – ☐ = 7

Ask if anyone can write the number of jumps they took in the correct box.

Ask the pupils to try the following in their exercise books:

10 – ☐ = 3

9 – ☐ = 8

Plenary

Whole class teaching

Ask some pupils to tell you the answers and explain how they did it.

Lesson title

15 minutes | Macmillan New Primary Mathematics 1

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 18
Subtraction
Day 5

Using a number line to find missing numbers

Learning outcomes

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

Complete subtraction sums using a number line.

Find patterns in subtraction sums.

Teaching aids

Before the lesson:

Find a die and two coloured counters for each pair of pupils.

Read Macmillan New Primary Mathematics 1, page 66, questions c, d, g and h.

Daily practice

Pair task

Ask each pair to complete Macmillan New Primary Mathematics 1, page 66, questions c, d, g and h by copying the sums into their exercise books and drawing a number line to help them.

Ask the pupils to exchange their work with other pairs and compare it.

10 minutes	Song	25 minutes	10 minutes

Introduction

Pair task

Ask the pupils to sing a counting song and do the actions.

Ask them to play the ladder game they played on Day 3.

Main activity

Group task

Give each group the following sums to complete, using a number line to help them:

10 – ☐ = 1
10 – ☐ = 2
10 – ☐ = 3
10 – ☐ = 4
10 – ☐ = 5
10 – ☐ = 6
10 – ☐ = 7
10 – ☐ = 8
10 – ☐ = 9

Ask each group to say how they completed the task.

Ask if any of them noticed a quick way of doing it?

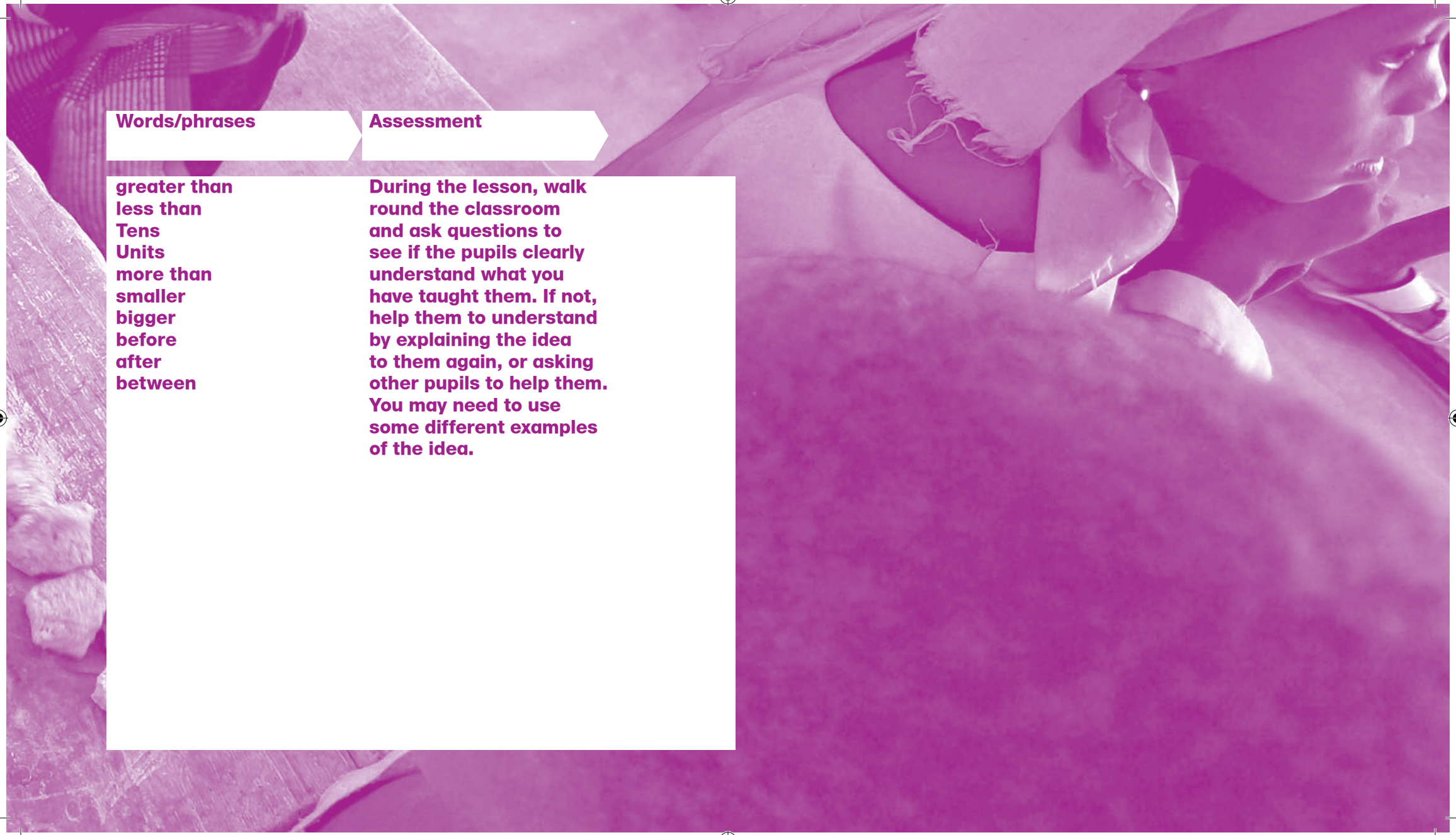
Ask pupils if any of them can see a pattern of numbers which would help them.

Plenary

Whole class teaching

Sit the pupils in a circle and ask them each to say one thing they have learned about subtraction in the last two weeks.

Week 19 Whole numbers 0—99



Words/phrases	Assessment
greater than less than Tens Units more than smaller bigger before after 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

15 minutes | Song

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 19
Whole numbers 0—99
Day 1

Order numbers from 0—99

Learning outcomes

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

Subtract numbers 0—10.

Count numbers from 0—99.

Recognise numbers 0—99.

Use a number square to count.

Teaching aids

Before the lesson:

Collect enough counters for each pair to have 40.

Find number cards 1—40.

Read Macmillan New Primary Mathematics 1, page 46.

Daily practice

Whole class teaching

Sing the counting song, '1 little, 2 little, 3 little fingers' with the pupils.

Stand 10 pupils in a straight line.

Show them how to do 8 – 1 = 7, by counting eight pupils then removing one pupil from the line.

Ask them to show you how to do the following sums using pupils:
10 – 7 =
8 – 4 =
7 – 5 =
5 – 3 =

15 minutes		25 minutes	Game	20 minutes	Macmillan New Primary Mathematics 1

Introduction

Pair task

Give each pair a number card below 40 and a selection of counters.

Ask them to count that number of counters.

Ask pupils to look at the number the person sitting next to them has and check that they have the right number of counters to match their card.

Main activity

Pair task

Play ‘Bingo’. Ask pupils to write down six numbers between 40 and 90.

Call out random numbers between 40 and 90. Make sure you keep a note of the numbers you have called.

If the pupil has the number you call out they draw a line through that number in their book. When they have drawn a line through all six of their numbers they shout ‘bingo’.

Plenary

Individual task

Ask the pupils to open Macmillan New Primary Mathematics 1, page 46, and count the numbers on the Hundred square table from 1—100.

Call out numbers 75, 40, 33, 88, 29, etc and ask the pupils to point to the number on the Hundred square.

Lesson title

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 19
Whole numbers 0—99
Day 2

Grouping objects into Tens and Units

Learning outcomes

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

Group objects from 0—99 into Tens and Units using counters.

Explain how to use a Hundred square table to group objects into Tens and Units.

Group objects into sets of 10, 9, 8, and 7, 6, 5, 4, 3, 2, 1.

Teaching aids

Before the lesson:

Collect at least 10 bundles of 10 sticks or straws and nine single sticks or straws for each group.

Read Macmillan New Primary Mathematics 1, page 46.

Have counters ready for each pupil.

Daily practice

Whole class teaching

Ask pupils to solve subtraction sums involving numbers less than 10 using counters, eg:
9 – 6 =
4 – 2 =
6 – 3 =

Ask them to tell you how they found the answers.

10 minutes

25 minutes

10 minutes

Macmillan New Primary Mathematics 1

Introduction

Whole class teaching

Give each pupil one bundle of counting sticks and five additional single sticks.

One bundle of straws is one Ten and each single straw is one Unit.

Remind the pupils what Tens and Units mean, ie: one bundle of the small counting sticks represents one Ten, and each single stick represents one Unit.

Ask them to show you 11, by holding up one bundle of Ten and one single Unit stick.

Repeat the task, asking them to show you:
13
15
12
14

Main activity

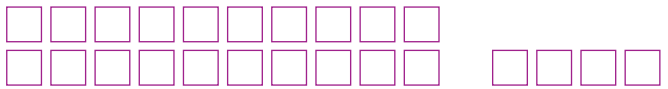
Group task

Give 10 bundles of Ten and nine single Units to each group.

Ask the pupils to group the following numbers into Tens and Units in their groups:
24
37
63
75
81

Ask pupils to record the numbers they make in their books like the diagram below:

Recording numbers



= 24

Plenary

Whole class teaching

Tell the pupils to open Macmillan New Primary Mathematics 1 page 46, and look at the Hundred square table.

Select pupils to tell you how many Tens and how many Units there are in:
46
66
80
78

Lesson title

Place value

15 minutes

Learning outcomes

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

Draw a number line.

Know how to use a number line to subtract.

Use Tens and Units place value cards to make any two-digit number.

Teaching aids

Before the lesson:

Prepare a number line 0—10 on cardboard, paper or draw it on the chalkboard.

Have ready several sets of place value cards (one per pair if possible) as described in the teaching aids section.

Daily practice

Whole class teaching

Write the sum 10 – 2 = on the chalkboard.

Ask pupils where to start on the number line (10) and how many to subtract (2).

Put your finger on 10 and ask them to count with you while you count backwards 2, until you reach number 8.

Ask a pupil to demonstrate how to use the number line to solve 9 – 5 by repeating all the steps above.

Ask all pupils to draw a number line in their books from 0—10.

In pairs ask them to use the number line to work out the following sums and write them in their books:
5 – 2 =
8 – 3 =
10 – 9 =
5 – 0 =
7 – 6 =

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**
Whole class teaching	**Pair task**	**Whole class teaching**
Demonstrate how to use the place value cards by sliding a Unit card on top of a Tens card, forming a two-digit number (see introductory section).	Give each pair a set of two-digit place value cards. Tell the pupils they are going to make the number 45. Ask them to place the 5 Units card on top of the 4 Tens card: 5 Units added to 4 Tens make 45 Explain this is 4 Tens and 5 Units making 45. Repeat the process making new two-digit numbers, 25 and 63. Say a number aloud and ask pupils in pairs to make it using their cards. For each number, ask them how many Tens there are and how many Units.	Using your own set of place value cards make a two-digit number. Show it to the class. Ask them to call out the number you have made. Ask individuals to tell you how many Tens and Units are in your number. Repeat several times.

Lesson title

15 minutes | Song

Using number lines to explore numbers

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 19
Whole numbers 0—99
Day 4

Learning outcomes

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

Use a number line to show the position of a number before, after, between, greater than or less than any other number.

Teaching aids

Before the lesson:

Collect counters.

Draw a number line on cardboard or paper, or draw it on the chalkboard.

Read Macmillan New Primary Mathematics 1, page 48.

Daily practice

Whole class teaching

Sing the song ‘10 green bottles’ and have 10 pupils come out and act as the bottles.

10 minutes

Introduction

Whole class teaching

Show the pupils the number line you have made.

Demonstrate how to use it to identify the position of numbers, eg: point to 35 and then say 34 is the number before it.

Ask the pupils to point to the number which comes after 35.

Repeat the task using several different numbers as starting points.

Ask three pupils to come out to face the class.

Ask pupils who is in the middle. Say this person's name and tell them that this person is in between the other two pupils.

Now point to 49 and 51 on the number line.

Ask the pupils: 'Which number comes between 49 and 51?'

25 minutes

Macmillan New Primary Mathematics 1

Main activity

Group task

Ask pupils to look at the Hundred square in Macmillan New Primary Mathematics 1, page 46.

Ask them to work together to find the answers to the following:

The number before 28, 46, 74, 83.

The number after 18, 39, 50, 77 and 84.

Any number that lies between 69 and 48, 90 and 62, 34 and 14.

Walk around the class and ask individual pupils to show you the position of the above numbers on the number line.

Whole class teaching

Tell the pupils that greater than means 'more than' or 'bigger', and less than means 'smaller'.

Ask them to tell you a number greater than 78, 32, etc.

Ask them to tell you a number less than 29, 94, etc.

Individual task

Tell the pupils to look at Macmillan New Primary Mathematics 1, page 48, questions 1—5.

Ask them to complete the exercise using numbers less than and greater than another number.

10 minutes

Plenary

Whole class teaching

Display a number line and ask pupils to solve several subtraction problems, eg:

'I had 6 yams and I sold 5, how many do I have left?'

'There were 6 buses in the motor park and 3 drove away, how many were still in the motor park?'

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 19
Whole numbers 0—99
Day 5

Lesson title

Expanding numbers

15 minutes

Learning outcomes

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

Expand numbers 0—99 into Tens and Units.

Teaching aids

Before the lesson:

Read Macmillan New Primary Mathematics 1, page 45.

Make two headbands for pupils to wear. Write 'Tens' on one and 'Units' on the other.

Prepare two sets of digit cards 0—9, large enough to be seen by the whole class.

Write at least 20 randomly selected numbers between 0—99 all over the chalkboard.

Have place value cards ready for each pair.

Daily practice

Whole class teaching

Ask pupils to use a number line to complete the following sums. Remind them to look carefully at the sign as they are a mixture of addition and subtraction sums.

6 – 3 =
10 – 2 =
6 + 4 =
2 + 8 =
6 – 5 =
8 – 8 =
4 + 5 =

Ask individual pupils to tell you the answers and explain how they did them.

10 minutes

25 minutes

Macmillan New Primary Mathematics 1

10 minutes

Introduction

Whole class teaching

Ask two pupils to come to the front and face the class. Give each of them a headband to wear. Make sure the pupil wearing the Tens band is on the left as the class look at them.

Give them each a set of digit cards 0—9.

Tell the class you want to make the number 45.

Ask them how many Tens you will need, then ask the pupil wearing the Tens headband to show the correct number card (4).

Repeat the question and task for the Units (5).

Point to the number they have made and say '45'. Say 'This is 4 Tens and 5 Units so the number is 45'.

Repeat, making 68, 21, 30 and 99.

Explain to pupils that expanding means rewriting whole numbers as Tens and Units, eg:

53 = 5 Tens and 3 Units

TU
53

5 Tens + 3 Units = 53

Main activity

Pair task

Remind pupils how to use the place value cards.

Ask them to work with their partner to make 88, 61, 95, 58 and 48 using the place value cards.

Walk around the class asking individuals how many Tens and Units there are in the number they are making.

Individual task

Ask the pupils to open Macmillan New Primary Mathematics 1, page 45, Exercise 1. Ask them to complete each question as in the example, writing the Tens and Units and then the whole number.

Plenary

Whole class teaching

Divide the class in half for a quiz.

Ask questions about how many Tens and Units there are in a number, what number is greater than/less than/in between, simple subtraction problems, etc.

Week 20 Addition and subtraction 0—10

Words/phrases	Assessment
missing numbers plus sum increase equals add	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

Addition of numbers

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 20
Addition and subtraction 0—10
Day 1

Learning outcomes

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

Add up numbers less than 10 using real objects.

Find the sum of numbers less than 10.

Teaching aids

Before the lesson:

Collect counters.

Make flash cards with words that mean addition, ie: ‘plus’, ‘sum’, ‘increase’.

Daily practice

Whole class teaching

Write a row of mixed numbers on the chalkboard, eg:
84, 12, 43, 79, 1, 57, 16, 98.

Ask the pupils to read them out.

Individual task

Ask the pupils to order the numbers from the smallest to the largest, writing them in their book.

Repeat with two more rows of numbers.

10 minutes

Introduction

Whole class teaching

Show pupils the flash cards and read out the words. Explain that all the words mean the same thing.

Ask the class to repeat them after you twice.

Individual task

Give each pupil at least 10 counters.

Ask the pupils to make one group of six counters and another group of three counters.

Ask them to add the two groups together.

Ask them what the answer to 6 + 3 is.

Repeat the task for:
8 + 1 =
3 + 5 =
2 + 6 =
0 + 9 =

25 minutes

Main activity

Whole class teaching

Demonstrate one way of making five by drawing four triangles close together and one triangle further away. Write 4 + 1 = 5.

Write the following sums on the chalkboard and ask the pupils to copy them into their books and answer them:
0 + 5 =
1 + 4 =
2 + 3 =
3 + 2 =
4 + 1 =
5 + 0 =

Ask pupils if they can see a pattern in the sums or the answers.

Group task

Ask the pupils in their groups to help each other to find lots of different ways of making 10.

Tell them to use their counters and then record each new idea in their books.

10 minutes

Plenary

Whole class teaching

Ask pupils for all their ideas for ways of making 10 and write them on the chalkboard. Congratulate them and see if they have managed to find all the ways.

Lesson title

15 minutes | Song

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 20
Addition and subtraction 0—10
Day 2

Addition using a number line

Learning outcomes

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

Use a number line to add two numbers less than 10.

Teaching aids

Before the lesson:

Have ready a number line for each group.

Daily practice

Group task

Ask the pupils to sing counting songs.

Ask them to count as fast as they can 0—10, then as fast as they can 10—0.

Write several two-digit numbers on the chalkboard.

Point to them very quickly and ask pupils to call out the number.

10 minutes	25 minutes		10 minutes	Song

Introduction

Whole class teaching

Ask at least 10 pupils to come out and write numbers 0—10 on the chalkboard.

At the same time, ask all pupils to write numbers 0—10 in their notebook.

Divide the class into groups of four.

Give a number line to each of the groups.

Main activity

Whole class teaching

Place one of the number lines on the chalkboard for every child to see.

Demonstrate how to use the number line on the chalkboard to add numbers between 0 and 10.

Tell pupils always to start with the bigger number and add the smaller one, eg:
7 + 3, start with your finger on 7 and add on 3.

Use the number line to show similar sums, eg:
5 + 4
6 + 3, etc.

Group task

Write several addition sums on the chalkboard.

Ask the pupils to help each other use the number lines to work out the sums on the chalkboard.

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

Plenary

Whole class teaching

Sing a counting song together.

Lesson title

15 minutes

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 20
Addition and subtraction 0—10
Day 3

Subtraction of numbers 0—10

Learning outcomes

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

Group objects from 0—99 into sets of Tens and Units, then count them.

Subtract numbers between 0 and 10, using real objects and number lines.

Teaching aids

Before the lesson:

Collect and store hundreds of pebbles, used matches, straws cut in thirds, seeds, etc.

Daily practice

Whole class teaching

Ask the class to count 0—100 in Tens.

Now ask different groups of pupils to count aloud 0—100.

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**
Group task	**Individual task**	**Whole class teaching**
Give each group 10 objects.	Ask each pupil to take one set of 10 counters.	Ask questions, eg: 'What is 4 add 3?' 'What is 5 plus 5?' 'What is 1 more than 10?' 'What is 1 less than 9?' 'What is 6 take away 4?'
Ask them to count them.	Write several subtraction sums on the chalkboard.	
Tell them to take one away.	Ask pupils to copy the first sum into their books and use their set of 10 objects to work out and then record the answers.	
Ask them: 'How many are left?'	Ask them to copy the second sum into their books and draw a number line to find the answer.	
Ask them to write it as a sum: 10 – 1 = 9	Repeat for each sum on the chalkboard, changing between using objects and drawing a number line.	
Repeat, taking away different numbers		

Lesson title

15 minutes | Macmillan New Primary Mathematics 1

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 20
Addition and subtraction 0—10
Day 4

Subtracting numbers less than 10

Learning outcomes

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

Use a number line to count up to 99 from any given starting point.

Use a number line to subtract two numbers less than 10.

Teaching aids

Before the lesson:

Find the Hundred square in Macmillan New Primary Mathematics 1, page 46.

Have ready a 0—25 number line for each pair.

Daily practice

Whole class teaching

Tell the pupils they are going to count from 0—100.

Start with girls saying 0, then the boys saying 1, girls saying 2, boys saying 3, etc.

Continue this pattern until they reach 100.

Ask the pupils to count to 100 in Tens, ie: 10, 20, 30, 40, etc.

Now ask them to count in Tens from other starting points, eg:

15, 25, 35, 45

34, 44, 54, 64

2, 12, 22, 32, 42, 52

Ask them to look at the Hundred square in Macmillan New Primary Mathematics 1, page 46.

Ask them to use it to count backwards from 100.

10 minutes	25 minutes	10 minutes
Introduction	**Main activity**	**Plenary**
Whole class teaching	**Pair task**	**Whole class teaching**
Demonstrate how to use the number line on the chalkboard to subtract 4 from 10.  	Write several subtraction sums on the chalkboard, using numbers less than 10. Give each pair a 0—25 number line. Ask the pupils, in their pairs, to use the number line to work out the answers to the sums on the chalkboard. Ask pairs to explain to the class how they worked out their answers.	Ask each pupil to draw a number line from 0—10. Ask each pupil to use the number line to subtract: 3 from 8 5 from 10 2 from 7, etc.

Lesson title

15 minutes | Macmillan New Primary Mathematics 1

Numeracy lesson plans
Primary 1

Term 2
Creating opportunities for classroom talk

Week 20
Addition and subtraction 0—10
Day 5

Missing numbers

Learning outcomes

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

Say the number that is one less than a given number.

Complete addition and subtraction sums which have missing numbers.

Teaching aids

Before the lesson:

Find the Hundred square in Macmillan New Primary Mathematics 1, page 46.

Have ready one set of number cards 0—10 for each group.

Prepare a set of three cards for each group, each with one blank card, one with the symbol '+', and one with '–'.

Daily practice

Whole class teaching

Ask the pupils to look at the Hundred square in Macmillan New Primary Mathematics 1, page 46.

Ask them to use it to answer the following questions:
'What is 1 less than 3?'
'What is 1 less than 49?'
'What is 1 less than 23?'

Ask several individual pupils to say a number and ask the class to say what is one less than it.

10 minutes	25 minutes	10 minutes	Song

Introduction

Whole class teaching

Divide the pupils into four groups and give each group a set of number cards from 0—10, symbol cards and blank cards.

Ask pupils to draw a number line from 0—10 in their books.

Main activity

Group task

Ask them to place the number cards on the table to make the following sum:

4 + □ = 6

Ask them to point to 4 on the number line and tell you how many jumps they need to make until they reach number 6.

Show them you make 2 jumps, so 4 add 2 = 6, 4 + 2 = 6

Ask them to replace the blank card with the number 2.

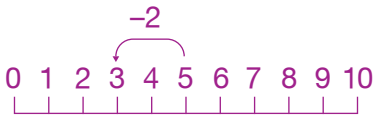
Repeat the process slowly several times, using different simple sums.

Tell the pupils that the same method can be used for subtraction.

Ask them to arrange their number cards in the following order:

5 – □ = 3

Use the number line to demonstrate how you arrive at the correct answer.



Tell them that you take away 2 from 5 to get 3.

Ask them to replace the blank flash card with the number 2 and read the sum to each other.

Repeat the process slowly several times, using different simple sums.

Plenary

Whole class teaching

Ask the pupils to choose a counting song to sing.

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.

Special thanks go to:

The Honourable Commissioner and staff of the Kwara State Ministry of Education and Human Capital Development, as well as the Kwara State Universal Basic Education Board for their support and valuable input and for agreeing to share these plans with other states.

The UK's Department for International Development (DFID) and the DFID-funded ESSPIN programme for their input, focus, guidance and constructive criticism throughout the development of the plans.

Thanks also go to the teachers of Kwara State who have used these plans to bring about change in their classrooms.