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Type of lesson plans/ Grade Term/ Learning theme

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Numeracy lesson plans Primary 2

Term 3 Assessment for learning

## Numeracy lesson plans Primary 2 Assessment for learning

**Weeks** 26—30

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



#### Introduction

Good teaching can help learners achieve positive outcomes, even in difficult circumstances. But learners have little chance of making progress where the teaching is poor.

Throughout 2010 in Kaduna State, the Ministry of Education carried out baseline surveys to assess classroom teachers, headteachers and pupil learning outcomes. Sadly, the findings were alarmingly poor. It was clear that despite substantial inputs into education, the majority of teachers were themselves victims of an education system that was in a serious downward spiral.

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

To improve the teaching of basic literacy and numeracy in primary schools, Kaduna is introducing a carefully designed series of literacy and numeracy lesson plans for primary 1–3 teachers. These provide a step-bystep guide to teachers, while ensuring that teaching and learning become more exciting and children become active learners.

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Alongside the lesson plans, structures and processes have been put in place so that teachers are continuously supported by the State School Improvement Team and specially-trained school support officers.

I am confident that these lesson plans will raise standards in our schools. I commend all those who have worked hard to produce these plans and train our teachers to use them, and I offer thanks to the UK Department for International Development (DFID) for its ongoing support for education reform in Kaduna State through its ESSPIN programme.

#### Professor Andrew Jonathan Nok

DSc, PhD, OON, FAS, NNOM



Honourable Commissioner of Education, Science and Technology Kaduna State

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Numeracy lesson plans Primary 2

Term 3 Assessment for learning

# Introduction Assessment for learning

Weeks 26—30

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#### **Assessment for learning**

Effective assessment supports learning, giving all pupils the chance to be successful learners.

Assessment in the classroom happens all the time, it is an ongoing process. It helps you to find out:

What your pupils have learned.

How well you are teaching.

How to plan your next steps of teaching.

What your pupils are doing well and what they need to practise.

In every lesson you should walk round the classroom and ask questions to see if the pupils clearly understand what you have taught them. If they do not, then you should help by explaining the idea to them again – maybe in a different way or with another example, or you could ask another pupil to help them.

Assessment used each day in the classroom gives you a much broader picture of your pupils' ability and progress. It also helps to give your pupils a sense of achievement, helping them to understand what they can do well and what they still need to practise. There are many ways that you can assess your pupils' knowledge and understanding:

#### By observing.

Using careful questioning.

Through discussion with individuals, pairs or groups of pupils.

When marking work produced by individual pupils.

Looking at exams at the end of a term.

In every classroom there will always be some pupils who learn faster than others. When you read the learning outcomes for each day, think about which of your pupils will achieve them at the end of the lesson and which of them will need more time to achieve the learning outcomes.

As you get to know your pupils you will be able to plan how you can help each pupil to do their best in every lesson.

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Numeracy lesson plans Primary 2

Term 3 Assessment for learning

## Introduction Low-cost teaching aids for the term

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Weeks 26—30

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kaduna-num-2-weeks-26-30-closeout.indd 7

#### **Centimetre ruler**

#### Metre sticks

#### Hours and minutes clock

Find a strip of card. Use a ruler to mark it in centimetre sections, as shown below.

Show the pupils how to measure using a centimetre ruler.

Put the end of the ruler at the end of the object you are measuring.

Read the number where the line ends, as shown below.

Cut strips of card to the same size as a metre stick and carefully mark the centimetres (cms) on the card in the correct place.

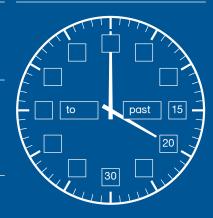
These can then be used for measuring.

Cut lengths of string to the same size as a metre stick, these can then be used for measuring. Ask a local carpenter if they have any long ends of wood that can be turned into a metre length.

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Ask the carpenter to make marks for cms, with longer marks for 10, 20, 30, up to 100, then write the numbers next to them.

If you write numbers from 1—100 on the other side, these can also be used as longer-lasting 1—100 number lines



4cm

1cm	2cm	3cm	4cm	5cm	6cm	7cm	8cm	9cm	10cm	

#### Making the 2 times table

<u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u><u></u></u>	2	1 x 2 = 2
<u>፟፟፟፟፟፟</u>	2 x 2	2 x 2 = 4
$\mathcal{R}$	2 x 2 x 2	3 x 2 = 6
፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟	2 x 2 x 2 x 2	4 x 2 = 8
፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟	2 x 2 x 2 x 2 x 2	5 x 2 = 10
፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟	2 x 2 x 2 x 2 x 2 x 2	6 x 2 = 12
፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟	2 x 2 x 2 x 2 x 2 x 2 x 2 x 2	7 x 2 = 14
፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟	2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2	8 x 2 = 16
፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟	2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x 2 x	9 x 2 = 18
፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟፟	2x2x2x2x2x2x2x2x2x2x2	10 x 2 = 20

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Which are subtraction problems?	Find my friend game	10 chunky chickens rhyme
1 Tunde has 45 apples. Bala buys 26 of them. How many apples has Tunde got now?	Write the numbers 0—10 on cards. Make two number 5 cards. Make enough cards for each pupil to have	10 chunky chickens, frying in a pan (x2) / One went pop and another went bang /
2 Dare is 56 years old. Jacob is 38 years old. What is the difference in their ages?	one card. If there is an odd number of pupils in the class, also make yourself a card.	There were 8 chunky chickens frying in a pan (Continue to subtract two chickens each time, until
3 There are 28 pupils in class A and 34 pupils class B. How many pupils are there altogether?	Give out the cards and tell the pupils they need to find someone who has a card that will make 10 when added to the	there are no chickens left in the pan.)
4 Mr Salami has 46 pencils. He has 27 pupils in his class. He gives them each a pencil. How many pencils does he have left?	number on their own card.	
5 Edet has 55 hens. He sells 38. How many hens has he got now?		

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Week 26 Subtraction crossing the Ten

#### Words/phrases

#### Assessment

measure estimate centimetres ruler two-digit expand crossing the Ten subtract subtract subtraction take away Tens Units How many Tens in each number?

How many Units in each number?

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

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 26 Subtraction crossing the Ten Day 1

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### Write two-digit numbers in expanded form

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By the end of the lesson, most	Group task	
pupils will be able to:	Show the pupils the lines on	
Use a ruler to measure in centimetres.	<ul> <li>the card and ask them to point to the longest and the shortest.</li> </ul>	
Write two-digit numbers in expanded form.	Ask how we can measure them accurately (using centimetre rulers)	
	Give out the rulers and ask	
Teaching aids	the pupils to point to the places on their ruler that show 5cm,	
Before the lesson:	13cm and 7cm. Ask the pupils to point to 0cm	
Draw lines measuring 10cm, 15cm, 20cm and 25cm on	on their ruler and tell them this is the starting point when measuring	
to a large piece of card for each group.	Ask each group to use their rulers to measure the lines on their card.	
Find rulers for each pair or make the rulers as explained in the introduction.	Ask each group to say their measurements and ask if the others agree.	

15 minutes

10 minutes	25 MAN Primary minutes Mathematics 2		10 minutes	
Introduction	Main activity		Plenary	
Whole class teaching	Whole class teaching	Individual task	Pair task	
Write '28' on the chalkboard.		Tell the pupils to look in	Call out the following sums	
Tell the pupils that this is a <mark>two-digit</mark> number.	to expand numbers on the chalkboard, eg: 37 = 3 Tens + 7 Units	MAN Primary Mathematics 2, page 86, Exercise A, questions 1—5.	and choose different pairs to answer them without using pencil and paper:	
Write: '28 =	= <mark>30</mark> + <mark>7</mark> .	Ask the pupils to complete	10-9 9-8	
on the chalkboard.	Choose some pupils to help you write more	the questions in their exercise books in the same	10 – 8 9 – 7 10 – 7 9 – 6	
Choose some pupils to write in the value of each digit.	two-digit numbers in this expanded form.	way as above.	$10 - 6  9 - 5 \\ 10 - 5  9 - 4 \\ 10 - 4  9 - 3$	
Ask individual pupils to say a two-digit number and state the value of each digit, eg: 74 is 7 Tens and 4 Units.			10 - 4   9 - 3   10 - 3   9 - 2   10 - 2   9 - 1   10 - 1	

#### Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 26 Subtraction crossing the Ten Day 2

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## Expanding numbers

Lesson

title

#### Learning outcomes **Daily practice** By the end of the lesson, most Pair task pupils will be able to: Ask if anyone can remember Measure shapes in centimetres. what we use to measure length. Expand two-digit numbers. Ask the pupils to show you how big a centimetre is with their thumb and first finger. **Teaching aids** Write 'cm' on the chalkboard and tell the pupils this is how Before the lesson: we write centimetres. Have ready the rulers from Give each pair a rectangle and yesterday. a ruler. Have ready rectangles measuring Ask them to measure the sides of 5cm x 10cm, 12cm x 8cm and their rectangle in cm and write the 15cm x 6cm – enough for each answers in their exercise books. pair to have one rectangle. Swap the rectangles around the Make a set of cards for each pairs and repeat. group containing the numbers: Check that they are measuring '37', '23', '45', '51' and '69'. accurately. Practise singing '10 chunky chickens'.

15

minutes

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10 minutes	25 minutes		10 Song minutes
Introduction	Main activity		Plenary
Whole class teaching	Whole class teaching	Group task	Whole class teaching
Demonstrate how to expand the number 54 on the chalkboard. 54 = 5 Tens 4 Units	Demonstrate how to expand the Tens in the following numbers on the chalkboard: 35 = 30 + 5	Give each group a set of number cards. Ask them to expand the numbers in their exercise books. Call out the numbers	Tell the pupils to sing '10 chunky chickens' with you. Ask them to say what
= 50 + 4 Write '33' on the chalkboard.	= 10 + 10 + 10 + 5 46 = 40 + 6 = 10 + 10 + 10 + 10 + 6		kind of sum they are doing — in the song.
Invite a pupil to the chalkboard to explain each stage of expanding the number.		and ask one person from each group to say the answers.	

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#### Lesson title

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 26 Subtraction crossing the Ten Day 3

### Subtracting numbers using the expanded form

Learning outcomes	Daily practice
By the end of the lesson, most pupils will be able to: Draw measurements accurately. Expand Units to subtract numbers that cross a Ten.	Pair taskGive each pair a ruler.Ask them to point to 0cm on their ruler and remind them that this is the starting point when measuring.
Teaching aids	Demonstrate on the chalkboard how to use a ruler to draw a straight line 5cm long.
Before the lesson: Have ready the rulers from yesterday.	Ask the pupils to draw lines of 5cm, 10cm and 15cm in their exercise books.
Have ready a number line for each pair.	Ask them to check each other's measurements.

15 minutes

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10 minutes	25 minutes			10 Song minutes
Introduction	Main activity			Plenary
Whole class teaching	Whole class teaching		Pair task	Whole class teaching
Ask the pupils to tell you as many addition sums as they can that add up to 5.	Demonstrate on the chalkboard how to solve 33 – 5 by expanding	On the chalkboard, demonstrate crossing the Ten to solve 44 – 7	Write the following sums on the chalkboard: 22 - 5 =	Sing '10 chunky chickens' with the class.
Write them on the chalkboard in a list. Ask the pupils to tell you as many addition sums as they can that add up to 7 and write them in a separate list on the chalkboard.	- the Units. Cross the Ten by counting - back 3 to the nearest 10 (30), then counting back another 2, as shown below. 33 - 5 = 33 - 3 - 2 = -2 -3 28 30 33	in the same way.	36 - 7 = 54 - 7 = 63 - 7 = 35 - 5 = Ask the pairs to complete the sums in their exercise books by using number lines to count back to the nearest Ten and then expand the Units.	

	Lesson title			~ 	15   minutes
Numeracy lesson plans		acting		Learning outcomes	Daily practice
Primary 2 Term 3		ers us Ided fo	ing the	By the end of the lesson, most pupils will be able to:	Group task
Assessment for	слрап				_ Hold up the ruler.
learning				Measure objects accurately in centimetres.	Ask the pupils to name objects that are small enough to measure
				Expand Units to subtract	with a ruler, eg: pencils, books.
				numbers that cross a Ten.	Give each group a 'Measure in centimetres grid', read and explain
Week 26				Teaching aids	it to them.
Subtraction					Ask if anyone can remember
crossing the Ten Day 4				Before the lesson:	what 'estimate' means.
Duy +	foot	Estimate in centimetres	Measure in centimetres	Copy the 'Measure in centimetres grid' shown left on to a piece of paper for each group.	<ul> <li>Ask the pupils to estimate the measurements and write them in the grid in cm.</li> </ul>
	little finger			-	<ul> <li>Ask each group to say their</li> </ul>
	pen/pencil			Have ready a ruler.	estimates and ask the other
	exercise book			Have ready a number line for	groups if they agree.
				each pair.	Keep the grids for the next day.

10 minutes	25 minutes		10 minutes
Introduction	Main activity		Plenary
Pair task	Whole class teaching	Pair task	Whole class teaching
Ask the pupils to tell you some addition sums that make 6.	Remind the pupils that expanding the Units can make it easier to subtract.	Write the following sums on the chalkboard: 21 – 7 =	Choose some pupils to quickly draw their number lines on the chalkboard.
Write their sums as a list on the chalkboard.	On the chalkboard, demonstrate crossing the – Ten to subtract 8 from 35.	- 34 - 7 = 62 - 8 = 73 - 7 = 45 - 6 =	
Ask the pupils to tell you some addition sums that make 8.	Write '65 – 6 =' on the chalkboard.	Ask the pupils to complete the sums in their exercise	-
Write these sums as a list on the chalkboard.	Tell the pupils to use the addition sums on the chalkboard to help them complete the sum.	books using number lines. Remind them to count back to the nearest Ten, then expand the Units.	-

#### Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 26 Subtraction crossing the Ten Day 5

## Subtracting numbers

Lesson

title

#### Learning outcomes

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

Measure objects accurately in cm.

Subtract two-digit numbers that involve crossing the Ten.

#### **Teaching aids**

#### **Before the lesson:**

Have ready the grids from yesterday and a ruler for each pair.

Have ready a number line for each pair.

#### **Daily practice**

15

minutes

#### **Group task**

Give out the 'Measure in centimetres grids' and rulers.

Demonstrate how to use a ruler to measure an object accurately.

Remind the pupils that 0cm is the starting point.

Ask the groups to measure the objects in the grid and write the measurements in cm in the grid.

Ask each group to say their measurements and ask the other groups if they are correct.

Ask the groups if any of their estimates were the same as, or near to, their measurements.

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10 minutes	25 minutes		10 minutes
Introduction	Main activity		Plenary
Pair task	Whole class teaching		Pair task
Remind the pupils that when we subtract numbers it can help to expand the numbers. On the chalkboard,	Write '43 – 25' on the chalkboard. Demonstrate expanding: 25 = 20 + 5 = 10 + 10 + 5.	Expand the 5, ie: 3 + 2 = 5, and jump back 2, as shown below. -2 -3 -10 -10	Write '32 – 28' and '41 – 25' on the chalkboard. Ask the pupils to work out the sums in their exercise books by
demonstrate how to expand the Tens in the following numbers: 44 = 40 + 4 = 10 + 10 + 10 + 10 + 4	Demonstrate counting back in 2 jumps of 10. To cross the Ten, jump back 3 to the nearest Ten.	18       20       23       33       43         Image: state sta	expanding the numbers and using a number line.
36 = 30 + 6 = 10 + 10 + 10 + 6			

Ask the pupils to expand 24, 38 and 46 in their exercise books.

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Week 27 Subtraction of two-digit numbers

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Words/phrases

Assessment

#### subtract subtraction take away minus subtract from difference between number line Tens Units crossing the Ten centimetre tape measure metre

How many Tens in each number? How many Units in each number?

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

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#### Lesson title

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 27 Subtraction of two-digit numbers Day 1

## Subtracting two-digit numbers

Learning outcomes	Daily practice	
By the end of the lesson, most pupils will be able to:	Group task	
Use a tape measure to measure in centimetres.	Remind the pupils that they have been learning how to measure in centimetres.	
Subtract two-digit numbers.	Write ' <mark>cm</mark> ' on the chalkboard.	
Teaching aids	Show the class the tape measure and tell them it is used to measure around things.	
Before the lesson:	Ask them to estimate how many centimetres it is around their wrists and ankles.	
Have ready a tape measure.		
Read MAN Primary Mathematics 2, page 89, Exercise G.	Choose some pupils to measure five pupils' wrists and ankles and write the measurements on the chalkboard.	
	Discuss who has the largest wrist and the smallest ankle.	

15 minutes

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10 minutes	25 MAN Primary minutes Mathematics 2	10 minutes	
Introduction	Main activity		Plenary
Whole class teaching	Whole class teaching	Pair task	Whole class teaching
Ask the pupils what they have learned about subtracting numbers.	Demonstrate question 1 from MAN Primary Mathematics 2, page 89,	Tell the pairs to look at Exercise G in MAN Primary Mathematics 2, page 89.	Choose some pupils to explain the answers to questions 4 and 5 on the
Ask them to say as many addition sums as they can that make 5 and list them on the chalkboard.	dition sums as they n that make 5 and list $42 - 25 =$ 42 - 20 - 5 = 42 - 10 - 5 =	Show them how to write the sums horizontally and ask them to complete questions 3—6 in their exercise books.	chalkboard.
	22 - 2 = 20 20 - 3 = 17	Remind them to use a number line.	

Demonstrate how to solve 56 – 13 in the same way.

Explain that in this sum we are not crossing the Ten.

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#### Lesson title

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 27 Subtraction of two-digit numbers Day 2

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### Subtracting larger two-digit numbers using a number line

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Learning outcomes	Daily practice	
By the end of the lesson, most pupils will be able to:	Group task	
Say how many centimetres	Give each group a metre stick and a ruler.	
equal a metre. Subtract two-digit numbers.	Ask the pupils how many centimetres they can see on the ruler.	
Teaching aids	Tell them that the stick is measured in spaces of 10 centimetres.	
<b>Before the lesson:</b> Read MAN Primary Mathematics 2, page 90, Exercise J.	Ask the pupils to count the Tens to find out how many centimetres there are on the stick.	
Have ready metre sticks, or prepared sticks measuring 100cm with 10cm spaced	Write '100cm = 1m' on the chalkboard.	
markings, for each group. Have ready the rulers from	Tell the pupils the stick is called a metre stick and is used to measure larger things.	
last week.	Ask them to say something that is bigger than the metre stick and something that is smaller than the ruler.	

minutes

10 minutes	25 MAN Primary minutes Mathematics 2	10 minutes
Introduction	Main activity	Plenary
Whole class teaching	Pair task	Whole class teaching
Remind the pupils that they have been learning ways to subtract using	Ask the pupils to look in MAN Primary Mathematics 2, page 90, Exercise J.	Ask one pair to show their workings on the chalkboard for the class to see, talking
a number line. Ask the pupils to help you work out 96 – 47, using the	Tell the pairs to choose five sums and complete them in their exercise books.	through each step.
method you have learned during the week.	Go round and check they are using number lines correctly.	

#### Lesson title

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 27 Subtraction of two-digit numbers Day 3

### Subtraction word problems

Learning outcomes	Daily practice	
By the end of the lesson, most pupils will be able to: Estimate using metres. Solve subtraction word problems. Teaching aids	Group task Ask the pupils to say how many centimetres there are in a metre. Write '100cm = 1m' on the chalkboard and ask the puils to copy it in their exercise books.	
Before the lesson: Have ready the metre sticks from yesterday.	Ask the groups to estimate how long and how wide the classroom floor is. Tell them to write their estimates in their books.	
Write the following words on large flash cards: 'minus', 'subtract from', 'take away', 'difference between', 'less than'. Read MAN Primary Mathematics 2, page 90, Exercise L.	Show them how to use the metre sticks to measure the floor. Ask the pupils to write their measurements in <b>m</b> in their books. Ask each group to say their measurements and ask the others if they agree.	

15 minutes

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10 minutes	25 MAN Primary minutes Mathematics 2	10 minutes	
Introduction	Main activity		Plenary
Pair task	Whole class teaching	Individual task	Whole class teaching
Ask the pupils to discuss different words and phrases	Tell the pupils to look in MAN Primary Mathematics 2, page 90, Exercise L.Read and explain each question.Choose some pupils to come and write the sum needed to solve each problem on the chalkboard.	Ask the pupils to complete the first three problems in Exercise L in their exercise books. Tell the pupils to draw number lines for each one.	Say a number between 0 and 10.
that mean subtraction. Choose some pairs to say some of their words.			Ask the pupils to shout out the number needed to make your number add up to 10, eg: if you say '8', they need to shout '2'. Repeat with other numbers between 0 and 10.
Show and read the flash cards.			
Put them on display in the classroom.			
	Remind them that they can expand the numbers to make them easy to subtract.	-	

Choose some pupils to expand 46 and 26.

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#### Lesson title

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 27 Subtraction of two-digit numbers Day 4

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## Estimate and check answers

#### Learning outcomes **Daily practice** By the end of the lesson, most **Group task** pupils will be able to: Ask the pupils to name some Estimate and measure in metres. things we could measure in metres and some things we Estimate and check answers could measure in centimetres. to two-digit subtraction sums. Give each group a metre stick and go outside. **Teaching aids** Look at one side of the school and ask some of the pupils to Before the lesson: estimate how long it is. Let them measure it with Have ready the metre sticks the metre stick and say the from vesterday. measurement. Practise singing '10 chunky chickens'. Discuss how near their estimate was to the measurement. Ask them to estimate a distance from the school, eg: from a wall to a tree and measure it with the metre stick. Discuss if their estimates are improving.

15

minutes

10 minutes	25 minutes			10 Song minutes
Introduction	Main activity			Plenary
Whole class teaching	Whole class teaching		Pair task	Whole class teaching
Ask the pupils to tell you as many addition sums with the answer 8 or 9 as	Write the following on the chalkboard: 42 – 18 = 24 45	Ask the class to guess which they think are the correct answers.	Ask the pupils how we can find out which is the correct answer.	Sing '10 chunky chickens' with the class.
they can. Write them in a list on the chalkboard.	$\begin{array}{c} 91 - 57 = \boxed{18} & \boxed{34} \\ 50 - 37 = \boxed{13} & \boxed{31} \\ 62 - 18 = \boxed{44} & \boxed{24} \end{array}$	Choose some pupils to say which answer they have chosen and why. Remind the pupils that	Demonstrate with 42 – 18. Ask the pairs to complete the rest of the sums on the chalkboard in their	-
of the ans of boxes is	Tell the pupils that one of the answers in each pair of boxes is correct and one is wrong.	<ul> <li>these are all subtraction sums and the answers will be less than the biggest number in the sum.</li> </ul>	exercise books. Tell them to check that their answer is the same as one of the answers in the boxes.	-

#### Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 27 Subtraction of two-digit numbers Day 5

## Using a number line

Lesson title  $( \bullet )$ 

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Learning outcomes	Daily practice	
By the end of the lesson, most pupils will be able to: Measure objects in centimetres	Pair task Write	
and metres.	'cm = 1' on the chalkboard and choose	
Solve subtraction word problems.	some pupils to fill in the gaps.	
Teaching aids	Ask the pupils to look at the pictures on the chalkboard and say which they would measure in centimetres and which	
Before the lesson:	they would measure in metres.	
Draw a tree, a door, a pencil, a book, a shoe and a wall on the	Tell them to fold a page in their exercise books in half.	
chalkboard. Copy 'Which are subtraction problems?' from the introduction	On one half tell them to write 'cm' and draw the objects they would measure in cm.	
on to the chalkboard.	On the other half ask them to write 'm' and draw the objects they would measure in m.	

15 minutes

10 minutes	25 minutes	10 minutes	
Introduction	Main activity		Plenary
Pair task	Whole class teaching	Individual task	Whole class teaching
Read through the word problems written on the chalkboard.	Look at the first sum on the chalkboard, 45 – 26. Remind the pupils that they have been expanding two-digit numbers and subtracting numbers by crossing the Ten.	Ask the pupils to complete problems 2, 4, and 5 in their exercise books, using a number line.	Ask the pupils to say any words they know that mean the same as subtract.
Ask the pupils to discuss which problems need subtraction sums (1, 2, 4			Choose some pupils to say how many Tens and Units there are in 48.
and 5).			Ask them to expand 48.
Ask them what sum is needed for number 3 (addition).	Choose some pupils to help you draw a number line and work out the answer.		Repeat with other two-digit numbers.
Ask them to say the sums needed for problems 1, 2, 4 and 5.	_		

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Choose some pairs to come and write the sums

on the chalkboard.



#### Words/phrases

#### Assessment

take away difference minus subtract clock long hand short hand minute hand hour hand hour minute o'clock half past quarter past quarter to estimate

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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. How long will it take to...?



# Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 28 Time Day 1

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# Minutes

Lesson

title

Learning outcomes

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

Subtract two-digit numbers.

Identify where minutes are on a clock.

**Teaching aids** 

# Before the lesson:

Read MAN Primary Mathematics 2, page 1.

Have ready a real clock with a second hand and a large clock with moveable hands. Ask some pupils to call out two numbers from 0—9. Write the numbers on the chalkboard.

15

minutes

**Daily practice** 

Pair task

Ask the pupils to say the biggest and smallest two-digit numbers they can make with the numbers.

Write these two, two-digit numbers on the chalkboard.

Ask the pairs to subtract the smaller number from the bigger number in their exercise books.

Remind them to draw a number line and expand the smallest number.

10MAN PrimaryminutesMathematics 2	25 minutes		10 minutes
Introduction	Main activity		Plenary
Whole class teaching	Whole class teaching		Whole class teaching
Ask the pupils to find the Hundred square in MAN Primary Mathematics	Ask the pupils to discuss in pairs why we need to tell the time.	Tell the pupils it is half past because the big hand has gone	Tell the pupils the long hand counts the minutes.
2, page 1. Ask them to put their fingers on 5 and count in	Ask them to share any times that they already know, eg: playtime, home time.half way round the clock.heir count in h 60.Ask them to share any times that they already know, eg: playtime, home time.Move the hands clockwise, make different o'clock times, and choose pupils to say the times shown	Move the long hand around the clock, pointing to the 5 minute sections. Count around the clock in 5s and say there are 60 minutes in an hour.	
5s until they reach 60. Ask them to count forwards			
again and then backwards in 5s from 60.	Choose a pupil to move the hands to make 4 o'clock.	Write, '8 o'clock', '3 o'clock' and '5 o'clock' on the chalkboard.	
	Remind the class that the short hand is the <b>hour</b> hand.	Ask the pupils to draw pictures in their exercise	
	When the big hand points to 12 it is <mark>o'clock</mark> .	books to show things they do at each time.	
	Move the hands to make half past 4 and ask if anyone can say the time shown.	Tell them to write the time under each picture.	

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 28 Time Day 2

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# Minutes past the hour

### Learning outcomes **Daily practice** By the end of the lesson, most Pair task pupils will be able to: Ask each pair to estimate how Find the difference between two many times they can write their numbers using a number line. name in 1 minute and write the estimate in their exercise books. Read the minutes past the hour on a clock. Ask them to write their names as many times as they can for 1 minute as you time them. **Teaching aids** Tell them to count how many names they have written. Before the lesson: Ask the pupils how they can work out the difference between Have ready a set of 12 blank cards their estimate and the answer. for each group. Have ready a set of 1—12 number Tell them to do a subtraction sum cards for each group. using a number line. Have ready the large clock from Choose some pupils to explain their sums on the chalkboard. yesterday. Make card clocks with moveable hands for each pair.

15 minutes

10 minutes	25 minutes		10 minutes
Introduction	Main activity		Plenary
Group task	Group task		Whole class teaching
Use the large clock to show the pupils 3 o'clock.	Ask each group to stand in a circle and count in 5s.	Choose one pupil in each group to be the 'bour band' and one to	Make different times on the large clock up to
Ask, 'What is the time?' Then ask,	t is the time?'of blank cards and a set of n ask,be the minute hand.do you know?'ask them to arrange the number cards in the shapeTell them to move around the number cards as you say the time, eg: '3 o'clock', '5 minutes past 3' up to	be the 'minute hand'.	half past. Choose some pupils to say the times.
'How do you know?' Repeat with 'half past' times.		Repeat this activity until most pupils have said a time.	
umes.	of a clock. Ask the groups to use their blank cards to make minute cards that count in 5s from 0—60, eg: 0, 5, 10, 15.	half past. Repeat, choosing different pupils and different times. Give each pair a card clock.	suu u time.
	Ask them to place the minute cards around the circle like clock numbers.	Ask the pupils to make the following times: 15 minutes past 3, half past 3, 5 minutes past 3, 10 minutes past 5, 25 minutes past 2, 20 minutes past 1.	

Lesson

title

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 28 Time Day 3

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# Minutes past the hour

# Learning outcomes

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

Use different terms for subtraction.

Use a clock to say minutes past the hour.

**Teaching aids** 

### **Before the lesson:**

Have ready flash cards containing subtraction words: 'take away', 'minus', 'difference', 'subtract from'.

Have ready the card clocks with moveable hands for each pair and the large clock.

Read MAN Primary Mathematics 2, page 141.

# **Daily practice**

15

minutes

# Group task

Ask one group to stand in front of the class and take away two pupils.

Ask the class to say a sum to describe what has happened, eq: 6 - 2 = 4.

Write the '-' sign on the chalkboard and ask the pupils to say some names for it, eg: minus, subtract.

Display and read the subtraction word cards.

Bring another group of pupils out and take some away.

Ask the rest of the class to describe what has happened using the word 'minus'.

Repeat, using other words for subtract.

10 minutes	25 MAN Primary minutes Mathematics 2			10 minutes
Introduction	Main activity			Plenary
Pair task	Individual task	Pair task		Whole class teaching
Give out the card clocks. Ask the pupils to make some o'clock times. Ask them what number the big hand points to when it has gone half way round the clock. Remind them this is called	<ul> <li>Ask the pupils to look in</li> <li>MAN Primary Mathematics 2, page 141.</li> <li>Ask them to say some of the times in the exercise and write the answers in their exercise books.</li> </ul>	Demonstrate moving the hands on the large clock to show 5 minute intervals. Show the pupils 4 o'clock. Say each time as you move the hands to make 5 minutes past 4, 10 minutes past 4.	Choose some pupils to say the times they have made. Repeat with minutes past other hours, asking the pupils to follow you with their clocks.	Make 10 past 6 on the large clock and choose someone to say the time. Repeat with 5 past 8, 25 past 7, and so on. (Do not go beyond half past).
'half past'.		Continue changing the time by 5 minutes until half past the hour.		
		Repeat, and ask the pairs to do the same with their clocks.		

	Lesson title		15   minutes
Numeracy lesson plans	Minutes to	Learning outcomes	Daily practice
Primary 2	the hour	By the end of the lesson, most	Group task
Term 3 Assessment for learning		pupils will be able to: Subtract two-digit numbers.	Give each group a subtraction flash card.
		Use a clock to say minutes to the hour.	Ask each group to make up a sum with two, two-digit numbers using that term, eg: 46 minus 15.
Week 28		Teaching aids	Write their sums on the chalkboard.
Time Day 4		Before the lesson:	Give each group a sum to _ complete in their exercise books.
		Have ready the card clocks with moveable hands for each pair and the large clock.	Remind the pupils that they can expand the numbers and use a number line.
		Have ready the subtraction word cards from yesterday.	Share the answers as a class and check they are correct.

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10 minutes	25 minutes			10 minutes
Introduction	Main activity			Plenary
Pair task	Pair task			Whole class teaching
Give out the card clocks to each pair.	Remind the pupils how to show minutes past on	Choose some pairs to hold up their clocks and ask	Explain that the time is 5 minutes to 4 o'clock.	Move the hands on the large clock to make different
Ask the pairs to show you some o'clock and half past times.	<ul> <li>a clock.</li> <li>Write on the chalkboard:</li> <li>5 minutes past 2</li> <li>25 minutes past 6</li> <li>15 minutes past 8</li> <li>20 minutes past 3</li> <li>25 minutes past 4</li> <li>10 minutes past 10</li> <li>5 minutes past 5</li> <li>Read the times and ask the pairs to make them on their card clocks.</li> </ul>	<ul> <li>the class if they are correct.</li> <li>Remind the pupils that when we get to 30 minutes past we say 'half past'.</li> <li>Explain that after half past we count the minutes left until the next hour and say 'minutes to'.</li> <li>Show the pupils 5 minutes to 4 on the large clock.</li> <li>Remind them that the long hand takes 5 minutes to move between the numbers around the clock.</li> </ul>	Ask the pairs to make the same times that you make with your clock. Demonstrate 10 minutes to 4, 15 minutes to 4, 20 minutes to 4, 25 minutes to 4. Each time, ask the pupils to say the times they have made by counting how many spaces of 5 minutes are left until the next hour.	times showing minutes to. Choose some pupils to say the times shown. Repeat this activity until most pupils have said a time.

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Lesson title		15   minutes
Telling the time	Learning outcomes	Daily practice
	By the end of the lesson, most pupils will be able to:Count forwards and backwards in 5s.Say the time on a clock.Teaching aidsBefore the lesson:Have ready a ball or object to throw and catch.Have ready a clock with moveable hands for each pair.Copy the 'Hours and minutes clock' from the introduction on to a piece of card for each group.	<ul> <li>Whole class teaching</li> <li>Stand the pupils in a circle and explain they are going to play a game that involves counting in 5s.</li> <li>Throw the ball to a pupil across the circle and say '5'.</li> <li>Ask them to add 5 and say the answer.</li> <li>Tell them to throw it to the next pupil and ask them to add 5 to the new answer.</li> <li>Continue until you reach 50.</li> <li>Repeat, this time going backwards from 50.</li> </ul>

Numeracy lesson plans Primary 2

Term 3 **Assessment for** learning

**Week 28** Time Day 5

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10 minutes	25 minutes		10 minutes
Introduction	Main activity		Plenary
Group task	Group task		Whole class teaching
Give each group an 'Hours and minutes clock'.	Ask them how many minutes there are in an hour.	Ask the groups to show the class their completed clocks and check they are correct.	Give each pair a clock. Ask them to make the
Ask them to write in the missing numbers for the <mark>hours</mark> .	Remind the pupils that we count in 5s as we say minutes past.	Demonstrate 4 o'clock with the large clock.	following times as you say them and hold up their clocks for you to see:
Ask them what happensMake each time betweewhen we get to half past.4 o'clock and 5 o'clock,	Make each time between 4 o'clock and 5 o'clock,	half past 4 20 minutes past 6	
	Ask the groups to put in the missing numbers for the <mark>minutes</mark> .	going round the clock in 5-minute intervals and choosing some pupils to say the time.	10 minutes to 9 15 minutes to 7
	Tell the pupils that 15 minutes past is also called ' <mark>quarter past</mark> ' and 15 minutes to is	Tell the groups to use the 'Hours and minutes clock' to help them.	
	also called 'quarter to'. Remind them that 60 minutes is called 'o'clock'.	Make different times on the clock and ask 'What time is it?'	

Week 29 Multiplication using repeated addition

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Words/phrases

Assessment

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multiply times multiplication multiplied by lots of groups of sets of repeated addition word problem 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.  $( \bullet )$ 

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 29 Multiplication using repeated addition Day 1

# **Repeated addition**

Learning outcomes

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

Order numbers up to 99.

Count equal sets of objects.

**Teaching aids** 

### **Before the lesson:**

Have ready a large selection of counters or bottle tops and sets of 0—9 number cards for each group.

Write the following sums on the chalkboard:  $4 \times 2 =$  $2 \times 3 =$  $4 \times 3 =$  $5 \times 4 =$  $5 \times 3 =$ 

3 x 3 =

### **Daily practice**

15

minutes

Whole class teaching

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

Ask the pupils to tell you the value of each digit, eg: 54 = 5 Tens and 4 Units.

Ask them to draw an empty number line in their exercise books.

Tell them to arrange the numbers in order on the number line, from the lowest to the highest.

10 minutes		25 minutes		10 minutes
Introduction		Main activity		Plenary
Group task		Group task		Whole class teaching
Give each group some counters and 0—9 number cards.	Ask, 'How many counters do you have altogether?'	Write: '4 + 4 + 4 + 4 + 4 = 20' on the chalkboard.	Tell them this is also called '5 <mark>times</mark> 4' and '5 <mark>multiplied by</mark> 4'.	Choose some pupils to say the answers. Ask them to write each sum
Ask each group to pick a number card.	<ul> <li>Tell the pupils to write this as a sum, eg:</li> <li>4 + 4 + 4 = 12.</li> </ul>	Tell the pupils that when we add up the same number it	Write '3 x 2' on the chalkboard. Ask the	as a repeated addition sum.
Tell them they are going to make that number of piles, eg: 3.	Repeat, until each pupil has written 3 different sums.	is called <mark>repeated addition</mark> . Ask, 'How many lots of 4 can	pupils to say it in three different ways. Choose a pupil to come	
Ask them to pick another card and put that number	_	you see?' (5) Tell them the sign for	and write it as an addition sum, ie: '2 + 2 + 2 ='.	
of counters in each pile, eg: 3 piles of 4 counters.		'lots of' is ' $\mathbf{X}$ ' and write it on the chalkboard. Write '5 x 4 = 20' on the	Tell the groups to use piles of counters to find the answer.	
		chalkboard. Tell them this is a short way of writing '5 lots of $4 = 20$ '.	Ask the groups to complete the sums on the chalkboard in their exercise books. Tell them to use the counters to help them.	

# Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 29 Multiplication using repeated addition Day 2

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# Multiplication using a number line

Lesson title

Daily practice
Pair task
Give each pair a set of 0—9
number cards.
Ask the pairs to pick 3
number cards.
Ask them to make as many
two-digit numbers as possible
with the number cards and record them in their exercise books.
Tell the pairs to write the expanded number next to each number they
have written, eg: $25 = 20 + 5$ .

15 minutes

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10 minutes	25 minutes		10 minutes
Introduction	Main activity		Plenary
Pair task	Pair task		Pair task
Write '2 x 4' on the chalkboard. Ask a pupil	Write '4 x 3' on the chalkboard.	If it is easier for the pupils to understand, write all	Ask them to check if the answers are the same. If
to read it out and explain what it means.	Remind the pupils that it is a quick way of writing	<ul> <li>the numbers from 0—20 on the number line, and then they can count three jumps</li> </ul>	not, check their counting and number lines.
Ask if anyone can remember some of the words for 'x'.	3 + 3 + 3 + 3. Show them how to use	each time.	
Hold up the flash cards and read them with the pupils.	a number line to work this out, starting at 0 and	Ask the pupils to complete the sums they did earlier, but this time use number lines instead of counters to work out the answers.	
Write '3 x 6', '5 x 2' and '4 x 5' on the chalkboard.	adding 3 on each time, as shown below. +3 +3 +3 +3		
Choose some pupils to say what each one means, eg:	0 3 6 9 12		

'3 x 6' means 3 lots of 6.

Tell the pupils to complete the sums in their exercise books using piles of counters.

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# Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 29 Multiplication using repeated addition Day 3

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# **Counting in 2s**

Lesson title

Learning outcomes	Daily practice
By the end of the lesson, most pupils will be able to:	Whole class teaching
Subtract two-digit numbers.	Remind the pupils how to subtract using the expanded method.
Count in 2s.	Demonstrate how to subtract 28 from 36.
Teaching aids	Write, '42 – 27' and '51 – 26' on the chalkboard.
Before the lesson:	Ask the pupils to complete these sums in their exercise books using
Draw a number line on the chalkboard.	a number line.
Have ready a number line for each pair.	
Draw a Hundred square on a large piece of card and display it in the classroom.	

15 minutes

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10 minutes	25 minutes		10 minutes
Introduction	Main activity		Plenary
Whole class teaching	Whole class teaching	Individual task	Whole class teaching
Show pupils the Hundred square and count in 2s, pointing out all the multiples	Tell the class that we can use a number line to find 8 lots of 2.	Write '6 x 2', '9 x 2' and '4 x 2' on the chalkboard. Ask the pupils to complete	Remind the pupils of the words we use for the sign 'x'.
of two. Stand them in a circle.	Choose someone to write the sign for 'lots of',	the sums in their exercise books using number lines.	Ask them to say '6 x 2' in three ways, ie: '6 lots of 2',
Say 'zero' (0) and go round the circle encouraging each	ie: ' <mark>x</mark> '.	Ask them to check each other's work	<ul> <li>'6 times 2', '6 multiplied by 2'.</li> </ul>
pupil to count in 2s, saying the next multiple of 2 when		to make sure they have the same answers.	Repeat with the other sums they have just done.

it is their turn.

need to.

Tell them to look at the Hundred square if they

Continue until each pupil has given a multiple of 2.

Repeat, starting with a different pupil.

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# Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 29 Multiplication using repeated addition Day 4

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# Using sets

Lesson

title

Learning outcomes

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

Order numbers to 100.

Multiply numbers using sets.

# **Teaching aids**

# **Before the lesson:**

Read MAN Primary Mathematics 2, pages 92—93.

Have ready the multiplication words on flash cards.

### **Daily practice**

minutes | Mathematics 2

MAN Primary

### Pair task

15

Ask the pupils to look at the Hundred square in MAN Primary Mathematics 2, page 1.

Ask them to say some numbers that are less than 50.

Ask them to say some numbers that are more than 50.

Draw two circles on the chalkboard.

Write 'more than 50' above one and 'less than 50' above the other.

Ask the pupils to copy this into their exercise books and write 5 numbers in each circle.

10 minutes	25MAN PrimaryminutesMathematics 2		10MAN PrimaryminutesMathematics 2
Introduction	Main activity		Plenary
Whole class teaching	Whole class teaching	Pair task	Whole class teaching
Write '6 x 2' on the chalkboard and ask the pupils to say what it means.	Tell the pupils to look in MAN Primary Mathematics 2, page 92.	Tell the pupils to look at the next four pictures. Ask them to discuss	Choose some pupils to read out the sums in MAN Primary Mathematics 2,
Flash the multiplication cards and ask the pupils to say them with you.	Explain the first four pictures.	what the missing numbers could be.	page 93, Activity A using the word 'times'.
Tell them we can also say 'groups of' and 'sets of'.	Ask four pupils to come out to the front of the class. Tell the class to look at the	Choose some pairs to say their answers and ask the others if they agree.	
	four pupils' feet and say how many groups of 2 feet they can see.	Tell the pupils to look at the broomsticks in MAN Primary Mathematics 2, page 93.	
	Choose a pupil to write this as a multiplication sum on the chalkboard.	Ask the pairs to draw sets of broomsticks for Activity A, questions 1—5.	

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 29 Multiplication using repeated addition Day 5

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# Sets and number lines

#### By the end of the lesson, most Whole class teaching pupils will be able to: Stand the pupils in a circle and Solve subtraction word problems. ask them to count to 100. Solve multiplication word problems. Say 'zero' and go round the circle in a clockwise direction. encouraging each pupil to **Teaching aids** count in 1s. Repeat, starting with Before the lesson: a different pupil. Write the following problems Write on the chalkboard: on the chalkboard: 'There are 42 pupils in class A and 28 pupils in class B. 1 There are 2 sweets in 4 bowls. Which class has the least pupils? How many sweets are there How many less pupils do altogether? they have?' 2 5 pupils have 2 exercise books Read and explain this problem. each. How many exercise books are there altogether? Ask the pupils to solve it 3 There are 8 pens with 3 hens in their exercise books using in each. How many hens are a number line. there altogether?

**Daily practice** 

Learning outcomes

10 minutes	25 minutes	10 minutes	
Introduction	Main activity	Plenary	
Whole class teaching	Pair task	Whole class teaching	
Ask the pupils the following word problem: 'If a goat has 4 legs and there are	Read the problems on the chalkboard to the class.	Ask the pupils to help you draw sets on the chalkboard	
5 goats, how many legs are there altogether?'	Choose some pupils to come and write the sum for each one.	to solve the problems. Ask if they got the same answers using	
Ask them how they can work out the answer.	Ask the pupils to solve the sums in their exercise books	a number line. If they did not, check	
Ask if anyone can write the sum on the chalkboard, ie: '5 x 4 ='.	by drawing a number line.	that they counted correctly on the number line.	
Demonstrate the sum, drawing five sets of legs and ask the pupils to count the legs to find the answer.			
Demonstrate the sum by drawing a number line.			

Ask the pupils to count in 4s to find the answer.

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Week 30 Multiplication tables

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# Assessment

x multiply times multiplication multiplied by lots of groups of sets of repeated addition

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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. ۲

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 30 Multiplication tables Day 1

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# The 2 times table

# Learning outcomes

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

Count in 2s.

Say the 2 times table.

**Teaching aids** 

### **Before the lesson:**

Have ready the Hundred square from last week and some counters for each pair.

Copy 'Making the 2 times table' from the introduction on to the chalkboard.

Read MAN Primary Mathematics 2, page 102, Exercise S.

# **Daily practice**

15

minutes

# Whole class teaching

Remind the pupils that they have been counting in 2s.

Show pupils the Hundred square and count in 2s with them, pointing out all the multiples of two.

Stand the pupils in a circle.

Say 'zero' and go round the circle, encouraging the pupils to say the next multiple of 2 when it is their turn.

Tell the pupils to look at the Hundred square if they need to.

Continue until each pupil has given a multiple of 2.

10 minutes		25 minutes	MAN Primary Mathematics 2		10 minutes
Introduction		Main	activity		Plenary
Whole class teaching		Pair t	ask	Whole class teaching	Whole class teaching
can multiply two numbers 'W	Say, 'We now have 2 sets of 2.'	Tell the pupils to look at MAN Primary Mathematics	Ask the pupils to say the sums and the answers	Read out the sums they have just completed and	
together, ie: use a number line or draw sets.	Point to the second row on the table and show the		e 102, Exercise S. em to use counters	with you. Tell them it is important	ask different pupils to tell you the answers.
Ask 2 pupils to come out to the front.	pupils the picture. Explain that $(2 + 2)$ is the	– compl	ke sets of 2 and ete questions 1—10	to know these times tables really well.	
Say, 'This is 1 set of 2.'	same as '2 x 2'.	in thei	r exercise books.	Ask them to find the answers to 4 x 2, 8 x 2 and 10 x 2, using counters.	_
of 'Making the 2 times o	Repeat, calling pupils out in sets of 2 until you have 10 sets.	_			
pupils the picture. Explain that '2' is the same as '1 x 2'.	Tell the pupils they have just made the 2 times table.	_			

Ask 2 more pupils to come and stand by the first set.

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Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 30 Multiplication tables Day 2

# The 3 times table

# Learning outcomes

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

Say the 2 times table.

Count in 3s.

**Teaching aids** 

**Before the lesson:** 

Display the Hundred square in the classroom.

Write the 3 times table on the chalkboard without the answers.

Have ready enough counters for each pair to have 30.

# **Daily practice**

15

minutes

### Whole class teaching

Ask the pupils to help you write the 2 times table on the chalkboard.

Tell them to say the 2 times table with you.

Say it, but miss out the answers and ask the pupils to shout them out.

10 minutes	25 minutes		10 minutes
Introduction	Main activity		Plenary
Whole class teaching	Pair task		Whole class teaching
Show the pupils the Hundred square and count in 3s, pointing out all the multiples of three. Stand the pupils in a circle. Say 'zero' and go round the circle, encouraging each pupil to say the next multiple of 3 when it is their turn. Tell the pupils to look at the Hundred square if they need to.	Tell the pupils that yesterday they counted in sets of 2 to make the 2 times table.Tell them they are going to make sets of 3 today to make the 3 times table.Point to '1 x 3' on the chalkboard and explain that this is 1 set of 3 so the answer is 3.Point to '2 x 3' and explain that this means 2 sets of 3.	Tell the pupils to add them up, ie: '3 + 3 = 6'.Point to '3 x 3' and ask the pairs to make 3 sets of 3 with their counters.Tell the pupils to add them up, ie: '3 + 3 + 3 = 9'.Tell them to copy the 3 times table into their exercise books.Tell them to use their counters to work out	Ask the pupils to say the sums and the answers with you. Tell them it is important to know these times tables really well. Ask them to find the answers to 4 x 3, 8 x 3, 10 x 3, using counters.
Continue until each pupil has given a multiple of 3.	Ask the pairs to make 2 sets of 3 with their counters.	the answers.	

Go round again, starting with a different pupil.

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Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 30 Multiplication tables Day 3

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# **Counting in 5s**

Learning outcomes

**Daily practice** 

15

minutes

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

Use addition and subtraction facts.

Count in 5s.

**Teaching aids** 

# **Before the lesson:**

Have ready lots of counters for each pair.

Write the 5 times table up to '5 x 5' on the chalkboard, without the answers.

Have ready the Hundred square.

# Pair task

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Write '24' on the chalkboard.

Give out counters to each pair.

Tell them they have 5 minutes to write down as many addition and subtraction sums as they can that have the answer 24.

Choose some pupils to say some of their facts and write them on the chalkboard under the number 24.

10 minutes	25 minutes		10 Game minutes
Introduction	Main activity		Plenary
Whole class teaching	Individual task		Whole class teaching
Ask the pupils to help you write the 2 times table on the chalkboard. Say it, but miss out the answers and ask the pupils to shout them out. Repeat with the 3 times table.	Show the pupils the Hundred square and count in 5s with them, pointing out all the multiples of 5.Stand the pupils in a circle.Say 'zero' and go round the circle, encouraging each pupil to say the next multiple of 5 when it is their turn.Tell the pupils to look at the Hundred square if they need to.	Continue until each pupil has given a multiple of 5. Go round again, starting with a different pupil. Ask them to complete the sums from the 5 times table on the chalkboard. Tell them they can use the Hundred square or their counters to count in 5s.	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 second number they have to say 'fizz' instead of the number, eg: '1, fizz, 3, fizz, 5, fizz, 7, fizz'. Tell them that they have to concentrate so they don't miss the number.

Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 30 Multiplication tables Day 4

# The 5 times table

Learning outcomes

**Daily practice** 

Pair task

15

minutes

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

Use addition and subtraction facts.

Use a number line for multiplication sums.

**Teaching aids** 

### **Before the lesson:**

Write the 5 times table from 6 x 5 to 10 x 5 on the chalkboard, without the answers.

Have ready lots of counters for each pair.

Give out the counters to each pair. Give the pupils 5 minutes to write as many number facts as they can with the answer of 16, using

Write '16' on the chalkboard.

addition and subtraction.

Ask them to discuss with another pair, 'How many sums did you make?', 'How many are addition sums?', 'How many are subtraction sums?'

10 minutes	25 minutes		10 minutes
Introduction	Main activity		Plenary
Whole class teaching	Pair task		Whole class teaching
Ask the pupils to help you write the 2 times table on the chalkboard.	Remind the pupils that they started to write the 5 times table yesterday.	Ask the pairs to complete the 5 times table in their exercise books using	Ask the pupils to get into groups of 5.
Tell them to say it with you.	Show them how to draw	– number lines.	Ask, 'How many groups of 5 are there?'
Say it, but miss out the answers and ask the pupils to shout them out.	- a number line to work out '6 x 5', as shown below. +5 +5 +5 +5 +5 +5	When they have finished, choose different pairs to quickly fill in the answers on the chalkboard.	Write this as a sum on the chalkboard. Repeat, asking the pupils
Ask if anyone knows the answer to '2 x 0 ='.			to get into groups of 3.

Tell the pupils to show you 2 sets of zero counters.

Ask them what '3 x 0' and '5 x 0' equal.

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Numeracy lesson plans Primary 2

Term 3 Assessment for learning

Week 30 Multiplication tables Day 5

# Number problems

# Learning outcomes

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

Know some of the times tables.

Use a number line for multiplication sums.

**Teaching aids** 

### **Before the lesson:**

Read MAN Primary Mathematics 2, page 98, Unit 5, Exercise I.

Read the instructions for the 'Find my friend' game in the introduction.

Have ready cards for the sums and answers in the 3 times table.

# **Daily practice**

minutes | Mathematics 2

15

## Whole class teaching

MAN Primary

Ask the pupils to look at the multiplication chart at the back of MAN Primary Mathematics 2.

Tell them to find the 2 times table and say it with you.

Repeat with the 3 and 5 times tables.

Ask the pupils some questions from the chart to help them become familiar with it, eg: 'What is 4 x 2?', 'What is 4 x 5?', 'What is 7 x 3?'

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10 minutes	25 Game MAN Primary minutes Mathematics 2		10 minutes
Introduction	Main activity		Plenary
Pair task	Whole class teaching	Individual task	Whole class teaching
Ask 4 pupils to come to the front of the class.	Play 'Find my friend'.	Write the following sums on the chalkboard and ask	Say the 2, 3 and 5 times tables with the class.
Ask the rest of the class,		the pupils to complete them in their exercise books:	
How many legs do they		6 x 3 =	
have altogether?'		5 x 5 =	
Ask the pupils to share their	-	9 x 3 =	
answer with their partner.		4 x 5 =	
Write this as a sum on the		9 x 2 =	
chalkboard.		When they have finished,	
Remind the pupils that		tell the pupils to look at	
multiplication is a quick		the multiplication chart	
way of doing addition.		at the back of MAN Primary Mathematics 2 and check	
Demonstrate how to work		if their answers are correct.	
out 8 x 3.			

# Credits

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### Special thanks go to:

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.

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.

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