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**Numeracy  
lesson plans**  
Primary 1

**Term 3**  
Assessment for  
learning

**Weeks**  
26—30

Type of lesson plans/  
Grade

Term/  
Learning theme

# Numeracy lesson plans Primary 1

Term 3

▶ Assessment for learning

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-by-step guide to teachers, while ensuring that teaching and learning become more exciting and children become active learners.

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 1**

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**Term 3  
Assessment for  
learning**

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**Weeks  
26—30**

# Introduction

## ▶ Assessment for learning

## 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 1

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**Term 3**  
**Assessment for**  
**learning**

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**Weeks**  
26—30

# Introduction

▶ Teaching aids and  
songs for the term

## Centimetre ruler

Get 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.



## Measuring with footsteps

Show the pupils how to measure the classroom with their feet.

Tell them to put their heels against the wall and then walk in a straight line across the classroom, counting the number of steps they take.

Tell them to stop when their toes touch the wall on the other side of the classroom.

## Measuring with hand spans

Show the pupils how to measure with their hand span.

Tell them that a hand span is the distance from the end of your small finger to the end of your thumb when your hand is stretched out.

Using your right hand, put your thumb against the object you are measuring.

Stretch your hand along the object and count 1 at the tip of your small finger.

Keeping your small finger still, bring your thumb in to touch it.

Keep your thumb still and stretch out your hand again, and count 2 when you place your little finger down.

Continue until you reach the end of the object.

## Ali's garden

Ali grew carrots in a triangle.  
Ali grew yams in a square.  
Ali grew potatoes in a circle.  
Ali grew cabbages in a rectangle.  
Ali grew peppers next to his house.

Ali's garden





## 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 yams...

(Repeat until no more yams are left)

## 10 fat fish

10 fat fish in the cooking pot / Big and fat with pepe on top / Along came (sing the name of a pupil) with a Naira one day / Bought a fat fish and took it away.

9 fat fish...  
8 fat fish...  
7 fat fish...

## Seven days

There are seven days, there are seven days / There are seven days in a week / Sunday, Monday / Tuesday, Wednesday / Thursday, Friday, Saturday /

## Days of the week

On Monday I walk to school / On Tuesday I run to school / On Wednesday I jump to school / On Thursday I skip to school / On Friday I walk, run, jump and skip to school / On Saturday I stay at home / And on Sunday I stay at home.

## Time of the day rhyme

At 6 o'clock I get out of bed and say 'good morning, good morning to you' / At 8 o'clock I go to school and say 'good morning, good morning to you' / At 10 o'clock we have a break and say 'good morning, good morning to you' / At 2 o'clock we go back home in the afternoon, in the afternoon / At 5 o'clock we help in the house in the afternoon, in the afternoon / At 7 o'clock we eat our dinner in the evening, in the evening / At 9 o'clock we go to bed and sleep all night

## Clock song

Tick tock, tick tock  
goes the clock /  
I know the time,  
it's  o'clock.

## 10 little fingers

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 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 (x2)...

(Repeat until no more  
bottles are left standing.)



Week  
26  
Measurement



## Words/phrases

## Assessment

**measure**  
**length**  
**height**  
**footstep**  
**hand span**  
**long**  
**longer**  
**longest**  
**longer than**  
**short**  
**shorter**  
**shortest**  
**shorter than**  
**tall**  
**taller**  
**tallest**  
**taller than**  
**estimate**  
**centimetres**  
**ruler**  
**tape measure**

**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.**

# Estimating length

## Learning outcomes

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

Identify two-digit numbers using a variety of clues.

Estimate and measure length using footsteps.

## Teaching aids

### Before the lesson:

Write 20 randomly selected numbers between 10 and 99 on the chalkboard.

## Daily practice

### Whole class teaching

Ask the pupils to look at the numbers you have written on the chalkboard.

Describe the numbers and choose pupils to come and point to the answer, eg:

Which number has  Tens and  Units?

Which number has no Units?

Show me a number greater than .

Show me a number less than .

Show me the biggest/smallest number on the chalkboard.

10  
minutes

## Introduction

### Whole class teaching

Remind the pupils that when we talk about height we use the words 'tall' and 'short'.

Bring some pupils to the front and ask them to compare their heights, eg: Bala is short, Musa is shorter, Fati is the shortest.

Ask if anyone can remember the words we use for length, ie: 'long' and 'short'.

Ask three pupils to hold up their arms to compare them, eg: Bala's arm is longer than Fati's. Musa has the longest arm.

Repeat with three different pupils.

25  
minutes

## Main activity

### Group task

Explain that we can measure length in many ways, eg: footsteps, strides, arms.

Show the groups how to measure the length of the classroom in footsteps, using two or three different sized pupils.

Tell the groups that they are going to measure the length of the classroom in footsteps.

Ask each group to choose one pupil and discuss how many footsteps they think it will be.

10  
minutes

## Plenary

### Whole class teaching

Ask the pupils how long they think their school building is.

Ask them if they think it is more or less than 100 footsteps.

Take the pupils outside and let them measure it.

Ask some pupils to say their answers.

Ask the class if any of their estimates were correct.

# Hand spans

## Learning outcomes

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

Expand two-digit numbers.

Estimate and measure length using hand spans.

## Teaching aids

### Before the lesson:

Have ready bundles of Tens and Units for each group.

Copy the 'Estimate in hand spans' grid shown opposite on to a large piece of paper for each pair.

## Daily practice

### Group task

Say some two-digit numbers and ask pupils to come and write them on the chalkboard.

Say the number '24'.

Ask the groups to use their bundles of Tens and Units to make this number in its expanded form, eg:  $24 = 2 \text{ Tens and } 4 \text{ Units}$ .

Choose a group to hold up their bundles and sticks.

Tell them to say,

'We have  Tens and  Units.'

Repeat with other two-digit numbers.

10  
minutes

## Introduction

### Pair task

Take the pupils outside.

Mark out a distance, eg:  
from the school entrance  
to a tree.

Ask the pupils to say how  
long they think it is in  
footsteps.

Ask them to measure it  
in footsteps.

Ask them to say their  
answers.

Ask if any of their estimates  
were nearly correct.

25  
minutes

## Main activity

### Pair task

Ask the pupils if they  
remember any other ways  
we can measure length.

Tell them that they are  
going to use hand spans.

Make your hand into  
a span and ask them  
to copy you.

Give each pair an 'Estimate  
in hand spans' grid.

Ask them how many  
hand spans they think  
the textbook is.

10  
minutes

## Plenary

### Whole class teaching

Ask some pairs to share  
their results with the class.

Discuss why some of the  
hand span measurements  
are different (pupils have  
different sized hands).

	Estimate in hand spans	Measure in hand spans
textbook		
exercise book		
desk		



# The need for a common measurement

## Learning outcomes

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

Write numbers 0—99.

Estimate using centimetres.

## Teaching aids

### Before the lesson:

Have ready or make a centimetre ruler for each pair.

Have ready sticks, straws and pieces of twine that are shorter and longer than 30cm for each group.

## Daily practice

### Pair task

Ask the pupils to find the Hundred square in MAN Primary Mathematics 1, page 76.

Tell them to write in their exercise books numbers that are **less than** 50.

Tell them to stop after 5 minutes and choose some to say their numbers to the class.

Repeat this activity, but this time ask the pupils to write numbers that are **greater than** 50.

10  
minutes

## Introduction

### Whole class teaching

Ask the pupils how they have been measuring length, ie: with footsteps and hand spans.

Choose three pupils with different sized feet to come out.

Ask them,

‘Who has the longest foot?’

‘Is \_\_\_’s foot longer than \_\_\_’s?’

‘Who has the shortest foot?’

Repeat with three pupils who have different sized hands.

Discuss the problems of using hands and feet to measure.

25  
minutes

## Main activity

### Pair task

Give each a pair a ruler and ask them to look at it carefully.

Explain that we use **centimetres** to measure things accurately.

Write ‘**cm**’ on the chalkboard and explain that this is how we write centimetres.

Put your finger near to your thumb to show how long a centimetre is and ask the pupils to copy you.

Show how to measure something using a ruler, putting the beginning of the ruler next to the object carefully.

10  
minutes

## Plenary

### Whole class teaching

Ask some pupils to bring out a stick they have measured.

Ask them to say what it measures in centimetres.

Use the ruler to check if they are correct.

# Centimetres

## Learning outcomes

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

Count numbers in 2s.

Use centimetres to measure different objects.

## Teaching aids

**Before the lesson:**

Read MAN Primary Mathematics 1, page 30.

Copy the 'Estimate in centimetres' grid shown left on to a large piece of paper for each group.

Have ready the rulers, sticks and twine **less than** 30cm long from yesterday.

## Daily practice

**Group task**

Ask the pupils to look at the Hundred square in MAN Primary Mathematics 1, page 76.

Ask them to read the numbers in the Hundred square.

Ask them to count forwards in 2s to 50, and then backwards in 2s.

Ask the pupils to count forwards in 2s as far as they can, writing the numbers in their exercise books.

Encourage them to keep going and try to reach 100.

	Estimate in centimetres	Measure in centimetres
textbook		
twine		
stick		

10  
minutes

## Introduction

### Pair task

Give out the rulers, sticks and twine.

Ask the pupils what the measurements on the ruler are called.

Choose someone to write 'cm' on the chalkboard.

Ask the pairs to use their rulers to draw lines that are less than 20cm in their exercise books.

Hold up some of their books and ask other pairs if they think they are correct.

25  
minutes

## Main activity

### Pair task

Give each group an 'Estimate in centimetres' grid.

Ask them how many centimetres long they think the textbook is.

Show them where to write it in the grid.

Read the other objects and ask the pupils to write their estimates next to them.

Discuss some of their estimates.

10  
minutes

## Plenary

### Whole class teaching

Discuss why centimetres are the best way to measure length.

# Revision activity on length measurement

## Learning outcomes

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

Identify two-digit numbers using a variety of clues.

Measure using centimetres.

## Teaching aids

### Before the lesson:

Write 20 randomly selected numbers between 10 and 99 on the chalkboard.

Have ready a 'House to measure' for each group, as shown left but don't write the measurements on it.

Have ready a tape measure and the rulers from yesterday.

## Daily practice

### Whole class teaching

Ask the pupils to look at the numbers you have written on the chalkboard.

Ask questions about the numbers, eg:

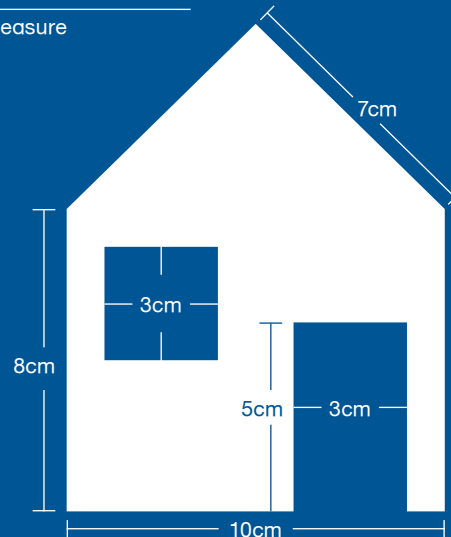
Which number has no Units?

Show me a number greater than .

Show me the biggest/smallest number on the chalkboard.

Choose different pupils to come and point to the answer.

House to measure



10  
minutes

## Introduction

### Pair task

Ask the pupils what we use to measure length.

Give each pair a ruler and ask them to measure their hand spans.

Write their results on the chalkboard.

Ask,

‘Who has the longest hand span?’

‘Whose hand span is the shortest?’

‘Who has the same hand span?’  
and so on.

25  
minutes

## Main activity

### Group task

Give each group a ‘House to measure’.

Remind them how to use a ruler carefully.

Ask them to measure all the lines on the house: the sides, the roof, and so on.

Ask them to write the measurements on the house in centimetres.

10  
minutes

## Plenary

### Whole class teaching

Show the pupils the tape measure and explain its use.

Ask some pupils to come out and stand against a wall.

Ask the class to estimate how tall they are in centimetres.

Choose some pupils to help you measure their height in centimetres with the tape measure.

Tell the class that centimetres are used to measure length and height.



Week  
27  
Capacity



## Words/phrases

size  
order  
capacity  
container  
measure  
compare  
bucket  
bottle  
cup  
bowl  
standard  
how many  
how much

## 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.



# Idea of capacity

## Learning outcomes

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

Add together two numbers less than 10.

Order containers according to their capacity.

## Teaching aids

### Before the lesson:

Have ready a ball.

Have ready 10 sticks for each group to count with.

Have ready containers of various sizes, eg: empty cans, bottles, bowls (each group will need five), as well as a bucket of sand, a bucket of water and a cup.

## Daily practice

### Group task

Throw and catch a ball with the class while counting in Tens each time.

Give each group the counting sticks.

Ask them to arrange the sticks in different ways to make sums that add up to 5.

On the chalkboard, show the pupils how to write their groupings as sums, eg:  $0 + 5$ ,  $1 + 4$ ,  $2 + 3$ ,  $1 + 1 + 1 + 2$ , and so on.

Ask them to group the counting sticks to make 10.

Tell the pupils to write the sums they have made in their exercise books.

10  
minutes

## Introduction

### Whole class teaching

Show the pupils the different containers and ask what they are used for, eg: carrying water, drinking from.

Discuss what they can contain, eg: juice, oil, tomatoes.

Place three or four containers on the table and demonstrate filling each with sand using a small cup.

Ask the pupils to count how many cups it takes to fill each container.

Repeat using water.

25  
minutes

MAN Primary  
Mathematics 1

## Main activity

### Pair task

Explain that they have just found out how much space there is in each container.

Tell the pupils this is called the **capacity**.

Ask them to say which of the containers had the greatest capacity.

Help the pupils to organise the containers in order of how much capacity they have.

Ask them to look in MAN Primary Mathematics 1, page 135.

In pairs, tell them to discuss which container holds the most in each picture.

10  
minutes

## Plenary

### Group task

Give each group five containers.

Ask them to discuss which they think will hold the most.

Ask the groups to put them in order with the container they think will hold the most at the front.

Ask them to walk around and look at each group's containers.

Ask the pupils if they agree with the order. If not, ask them to say why.

# Compare capacity of different containers

## Learning outcomes

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

Use a number line to add two numbers.

Compare the capacity of different containers.

## Teaching aids

**Before the lesson:**

Have ready the containers from yesterday, and a bucket of water and a cup for each group.

Make a large 'Capacity' label.

Have ready two small pieces of paper for each group.

## Daily practice

**Pair task**

Remind the pupils they can use a number line to add numbers.

Choose some pupils to help you solve  $7 + 9$  as shown below.

Write the following sums on the chalkboard:

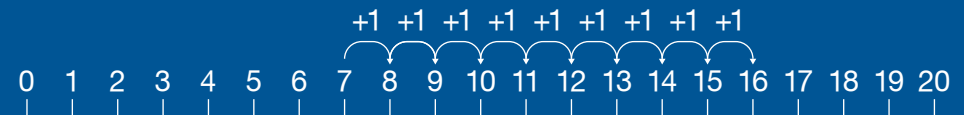
$$5 + 8 =$$

$$7 + 4 =$$

$$3 + 9 =$$

Ask the pairs to do the sums in their exercise books using number lines.

Number line



10  
minutes

## Introduction

### Whole class teaching

Hold up the 'Capacity' label and read it with the class.

Hold up two containers and ask the class which one holds the most.

Ask them how we can find out.

Fill each container with water using a cup.

Ask the pupils to count the number of cups that fill each container.

Ask them which container holds the most.

25  
minutes

## Main activity

### Group task

Give each group two different sized containers, a bucket of water and a cup.

Ask if anyone can explain what **estimate** means.

Ask them to estimate which container will hold the most water.

Ask them to estimate how many cups of water their containers will hold.

Write their estimates on the chalkboard.

10  
minutes

## Plenary

### Individual task

Ask the pupils to draw their containers in their exercise books.

Tell them to write the number of cups each held under the drawing.

Ask them to draw a circle around the container that held the most water.

Make a capacity display for use all week.

Collect the containers and display them in a corner of the classroom with the 'Capacity' label.

# Order the capacity of containers

## Learning outcomes

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

Know number bonds for numbers below 10.

Order containers according to their capacity.

## Teaching aids

### Before the lesson:

Find counters for each group.

Draw the 'Capacity grid' shown left on the chalkboard and have ready four pieces of paper to use as labels.

Have ready a bucket of water.

Read MAN Primary Mathematics 1, page 136.

## Daily practice

### Group task

Give each group a different number below 10.

Ask them to use their counters to group their numbers in as many different ways as they can.

Ask them to write the sums they make in their exercise books.

Ask each group to write some of their sums on the chalkboard.

Ask the other groups if they are correct.

	Estimate in cupfuls	Measure in cupfuls
A		
B		
C		
D		

10  
minutes

## Introduction

### Whole class teaching

Ask some pupils to choose four containers from the 'Capacity' display.

Make sure they are different shapes and sizes.

Explain that the containers have different capacities.

Ask the class why it is important that we know the capacity of each container.

25  
minutes

## Main activity

### Group task

Tell the pupils they are going to find out which container has the greatest capacity.

Label the containers 'A', 'B', 'C' and 'D'.

Show the pupils the 'Capacity grid'.

Show them a cup and say you are going to fill each container with it.

Ask each group to estimate how many cupfuls each container will hold.

10  
minutes

## Plenary

### Individual task

Ask the pupils to look in MAN Primary Mathematics 1, page 136.

Ask them to look at each picture and say which object holds the most.

Tell them to copy some of the pictures in their exercise books.

Tell them to draw a circle round the container that holds the most.

MAN Primary  
Mathematics 1

# Estimate capacity

## Learning outcomes

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

Add two numbers where the answer is less than 20.

Estimate how many cupfuls containers can hold.

## Teaching aids

### Before the lesson:

Have ready the 'Capacity' display.

Have ready a cup and a bucket of water for each group.

Draw the 'Capacity grid' on to a large piece of card or paper for each group.

Have ready four small pieces of paper for each group to use as labels.

## Daily practice

### Pair task

Remind the pupils that they have been using a number line to add numbers.

Choose some pupils to help you demonstrate how to add  $12 + 5$  using a number line.

Write the following sums on the chalkboard:

$$8 + 6 =$$

$$13 + 5 =$$

$$9 + 4 =$$

Ask the pairs to use number lines to work out the answers.

10  
minutes

## Introduction

### Group task

Let each group choose four containers from the 'Capacity' display.

Give them the pieces of paper and ask them to write 'A', 'B', 'C' and 'D' on them as you did yesterday.

Tell the groups to order the containers by their capacity.

Tell them to place 'A' next to the container they think holds the most.

Tell them to put 'B' on the next container and 'C' on the one after that.

Tell them to put 'D' next to the container they think will hold the least.

Ask the pupils to look at the other groups' containers.

Ask the pupils if they agree with the order, and if not to explain why.

25  
minutes

## Main activity

### Group task

Give each group a capacity grid, a cup and a bucket of water.

Ask the groups to estimate the number of cupfuls each container will hold and write them in the grid.

Ask them to take turns filling the containers with cupfuls of water and write the results in the grid.

Tell them to compare their results with their estimates

Ask each group if they were surprised by the amount the containers could hold.

10  
minutes

## Plenary

### Group task

Ask each group to hold up one of their containers.

Tell them to ask the other groups how many cupfuls of water they think it can hold.

Ask if anyone is correct.

If not, ask the pupils for the right answer.



# Standard measures

## Learning outcomes

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

Know the number bonds for 10.

Explain why standard measures are used in shops.

## Teaching aids

**Before the lesson:**

Practise singing '10 fat fish'.

Have ready a large container of sand or water for each group.

Have ready a small spoon and a cup.

## Daily practice

**Whole class teaching**

Sing '10 fat fish' with the class.

Write the following sums with missing numbers on the chalkboard:

$$6 + \square = 10$$

$$5 + \square = 10$$

$$4 + \square = 10$$

$$7 + \square = 10$$

$$8 + \square = 10$$

Remind the pupils how to use a number line to find the missing numbers, eg: counting on from 6 to 10 is 4 jumps, so  $6 + 4 = 10$ .

Ask the class to complete the sums in their exercise books.

Number line



10  
minutes

## Introduction

### Whole class teaching

Choose a medium sized container from the 'Capacity' display.

Show the pupils the spoon and the cup.

Ask how many spoonfuls of water they think will fill the container.

Ask them how many cupfuls will fill it.

Fill the container with spoonfuls and write the number on the chalkboard.

Repeat the activity with cupfuls.

Ask the pupils what they notice about the results.

Ask them why there are more spoonfuls than cupfuls.

25  
minutes

## Main activity

### Group task

Give each group a large container of sand or water.

Choose a pupil from each group to be a 'trader' and tell the others to be 'buyers'.

Tell them that you are looking for the pupil who buys the most amount of sand or water.

Explain they should choose the container with the biggest capacity from the display.

Ask them to 'buy' some sand or water to fill their containers.

Ask each group to look at all the containers.

Ask which buyer has got the most sand.

10  
minutes

## Plenary

### Whole class teaching

Ask the pupils if they know the measurement for capacity.

Explain that capacity is measured in **litres** and **millilitres** and that they should look out for these next time they go to the market.

Explain what a standard measure means.

Ask them to discuss what happens if different measures are used for shopping.



Week  
28  
Addition and  
subtraction 0—20

## Words/phrases

today  
yesterday  
tomorrow  
Monday  
Tuesday  
Wednesday  
Thursday  
Friday  
Saturday  
Sunday  
o'clock  
addition  
subtraction  
group  
smaller  
greater  
count  
forwards  
backwards  
How many jumps?

## 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.

# Addition 0—20

## Learning outcomes

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

Know the days of the week.

Use a number line to add two numbers below 20.

## Teaching aids

### Before the lesson:

Have ready day of the week flash cards and practise the 'Days of the week' rhyme.

Have ready a 0—20 number line for each pair.

Read MAN Primary Mathematics 1, page 98, Exercise D.

## Daily practice

### Whole class teaching

Ask if any pupils can say the names of the days of the week.

Hold up the day of the week flash cards in order and read them to the class.

Ask the pupils to read them with you.

Explain the words 'yesterday' and 'tomorrow'.

Choose some pupils to say what day it is today, what day it was yesterday, what day it will be tomorrow, the first day of the week, and so on.

Ask the class to say the days of the week with you.

10  
minutes

25  
minutes | MAN Primary  
Mathematics 1

10  
minutes | Rhyme

## Introduction

### Whole class teaching

Give out the number lines.

Ask the pupils to count forwards, then backwards, using the number lines.

Ask them to start at different numbers and count on 2.

Ask them to say the number they land on.

Repeat, counting on 3 each time and then 4.

## Main activity

### Pair task

Ask pupils if they remember ways of adding numbers together, eg: using counters, stones and number lines.

Demonstrate how to solve  $7 + 8$  using a number line as shown below.

Tell the pupils to look at MAN Primary Mathematics 1, page 98, Exercise D.

Ask them to complete sums 2—10 in their exercise books.

Ask some of the pupils to come out and explain how they got their answers, using their number lines.

## Plenary

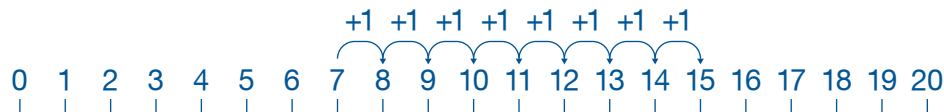
### Whole class teaching

Say the 'Days of the week' rhyme with the class. Make sure the pupils know it well.

Split the class into seven groups.

Give each group a day and tell them to say and do the action for that day.

Number line



# Addition with bigger numbers

## Learning outcomes

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

Say the days of the week in order.

Use an empty number line for addition.

## Teaching aids

**Before the lesson:**

Read the 'Days of the week' rhyme and the 'Seven days' song.

Read MAN Primary Mathematics 1, page 139.

Have ready a set of day of the week flash cards and 20 counters for each group.

## Daily practice

**Group task**

Say the 'Days of the week' rhyme with the pupils.

Tell them to look in MAN Primary Mathematics 1, page 139.

Talk about the pictures and ask the pupils what happens on Saturday, Friday, and so on.

Ask what day it is today, what day it was yesterday and what day it will be tomorrow.

Shuffle the sets of day of the week cards and give them out.

Ask the groups to arrange the cards in the correct order.

Ask each group to read them to the class.

10  
minutes

## Introduction

### Group task

Give each group 20 counters.

Ask them to arrange the counters in two groups of any size, eg:  $15 + 5$ ,  $13 + 7$ .

Show them how to write their groupings as sums in their exercise books.

Ask them to make as many different group sums using the counters as they can.

Ask each group how many different sums they found and praise the group with the most.

25  
minutes

## Main activity

### Whole class teaching

Explain to the class that you will teach them a quicker way to use a number line.

Write ' $15 + 6 =$ ' on the chalkboard.

Draw an **empty** number line.

Write ' $15$ ' at the beginning of the line and draw on 6 jumps.

Count the jumps starting at 15, stop at the final jump and write ' $21$ '.  $15 + 6 = 21$ .

Number line



10  
minutes

Song

## Plenary

### Whole class teaching

Ask the pupils if they can remember some different ways to make 20.

Sing 'Seven days' with the class.



# Addition with an empty number line

## Learning outcomes

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

Write the days of the week.

Use an empty number line for addition.

## Teaching aids

### Before the lesson:

Write the 'Days of the week' rhyme and the 'Seven days' song on the chalkboard.

Have ready a set of day of the week flash cards and 20 counters for each group.

## Daily practice

### Group task

Give out the day of the week flash cards.

Ask the pupils to say the 'Days of the week' rhyme and sing the 'Seven days' song.

As each day is mentioned, ask the groups to hold up the correct flash card.

Ask them to talk about things they do on different days of the week.

As they mention a day, ask them to come and underline that day in the rhyme or song on the chalkboard.

Ask the groups to arrange their cards in the correct order.

Tell the pupils to write the days of the week in their exercise books.

10  
minutes

## Introduction

### Group task

Give each group  
20 counters.

Ask them to arrange the  
counters in two groups  
of any size and write the  
sum they have made in  
their exercise books.

Challenge them to make  
as many different sums  
as they can.

Write some of their sums  
on the chalkboard and  
ask the rest of the class  
to check they are correct.

25  
minutes

## Main activity

### Pair task

Remind the pupils that  
yesterday they used  
an empty number line to  
work out addition sums.

Write '18 + 6 ='  
on the chalkboard.

Draw an empty number line  
and choose pupils to help  
you work out the sum.

Write:

$$19 + 4$$

$$19 + 6$$

$$18 + 5$$

$$17 + 6$$

$$21 + 4$$

on the chalkboard.

Ask the pupils to  
complete the sums in  
their exercise books.

10  
minutes

## Plenary

### Whole class teaching

Say some simple addition  
sums up to 10 and ask  
individual pupils to answer  
them without using paper  
or pencil.

# Subtraction of numbers 0—20

## Learning outcomes

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

Move the hands on a clock to change the hour.

Use a number line to subtract two numbers.

## Teaching aids

**Before the lesson:**

Write the ‘Time of the day’ rhyme on the chalkboard.

Have ready a large clock with moveable hands and a small clock for each pair.

Have ready a set of 0—20 number cards and 20 counters for each pair.

## Daily practice

**Whole class teaching**

Ask the pupils to say the days of the week.

Teach them the ‘Time of the day’ rhyme.

Give out the clocks.

Ask pairs to use the clocks and make the times mentioned in the rhyme.

Choose some pupils to come and move the hands on the clock to make the times mentioned in the rhyme.

10  
minutes

## Introduction

### Pair task

Ask if anyone knows other words that mean ‘take away’, eg: ‘subtract’, ‘minus’.

Give each pair a set of 0—20 number cards face down on the table.

Tell each pair to turn over 2 cards and take away the smaller number from the greater one, saying the answer aloud.

Tell the pairs to use the counters to help with this.

Tell them to write the take away sums in their exercise books, eg: ‘ $8 - 6 = 2$ ’.

25  
minutes

## Main activity

### Whole class teaching

Ask if they know another way to subtract numbers, ie: using a number line.

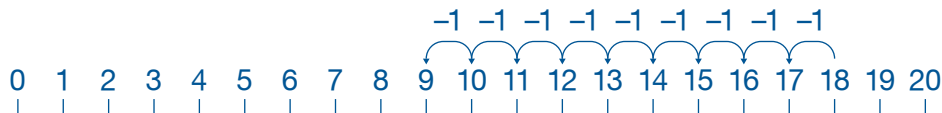
Draw a number line to 20 on the chalkboard.

Remind the pupils how to use a number line to work out  $18 - 9$  as shown below.

Tell them that to take away we count backwards, or from right to left.

Start at 18 and count back 9 jumps. Ask them what number we land on (9).

Number line



10  
minutes

Rhyme

## Plenary

### Whole class teaching

Say the ‘Time of the day’ rhyme all together.

Lesson  
title

# Addition and subtraction of numbers 0—20

15  
minutes

Rhyme

Song

## Learning outcomes

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

Read o'clock times.

Find the missing number in a subtraction sum.

## Teaching aids

**Before the lesson:**

Write the 'Time of the day' rhyme and the 'Clock' song on the chalkboard.

Read MAN Primary Mathematics 1, page 113.

Have ready 20 counters for each pair.

## Daily practice

**Whole class teaching**

Ask the pupils to say the 'Time of the day' rhyme.

Choose some pupils to move the hands on the clock to make the times in the rhyme.

Make an o'clock time on the clock and hold it up.

Sing the 'Clock' song and ask the pupils to look at the time on the clock and say it at the end of the song.

Sing the 'Clock' song several times, making a different time on the clock for the pupils to say each time.

10  
minutes

MAN Primary  
Mathematics 1

25  
minutes

10  
minutes

## Introduction

### Pair task

Choose some pupils to help you work out  $19 - 12$  on the chalkboard using a number line.

Ask the class to open MAN Primary Mathematics 1, page 113, Exercise C.

Tell the pupils to complete sums 1—6 in in their exercise books.

Go round and help pairs if they are having problems.

## Main activity

### Group task

Write '8 -  = 6' on the chalkboard.

Ask the pupils to suggest ways to find the missing number.

Tell them to take 8 counters. Ask, 'How many do you need to take away to leave 6?'

They need to take away 2, so  $8 - 2 = 6$ .

Show them on a number line: jump back from 8 to 6.

Ask, 'How many jumps did you take?' (2, so  $8 - 2 = 6$ .)

Repeat with  $18 - 6$ .

## Plenary

### Whole class teaching

Ask the pupils to check their answers using their counters.

Write the following sums on the chalkboard:

$$18 - \square = 14$$

$$12 - \square = 7$$

$$15 - \square = 9$$

$$11 - \square = 4$$

Tell the pairs to complete the sums in their exercise books using a number line.



Week  
29  
Money



## Words/phrases

coins  
Kobo  
Naira  
addition  
subtraction  
ascending  
descending

## 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

Song

**Numeracy  
lesson plans**  
Primary 1

**Term 3**  
Assessment for  
learning

**Week 29**  
Money  
Day 1

# Kobo coins

## Learning outcomes

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

Write and order the numbers 0—50.

Name and order Kobo coins.

## Teaching aids

### Before the lesson:

Read MAN Primary Mathematics 1, page 115.

Practise singing ‘10 little fingers’.

Have ready sets of real Kobo or make card coins for each group:  
2 x 50K, 4 x 25K, 10 x 5K and  
20 x 1K.

## Daily practice

### Whole class teaching

Ask the pupils to sing ‘10 little fingers’.

Go round the class, asking pupils to start at 0 and count up to 50.

Repeat several times, asking different pupils to start the counting.

10  
minutes

MAN Primary  
Mathematics 1

25  
minutes

10  
minutes

## Introduction

### Whole class teaching

Ask the pupils if they can name any of the coins or notes used in Nigeria.

Tell them to look in MAN Primary Mathematics 1, page 115.

Discuss the coins and the notes shown.

Ask them what they can buy for 5 Naira and 10 Naira.

Explain that Kobo coins are not used very often.

Ask how many different Kobo coins they can see.

## Main activity

### Group task

Give each group a set of coins.

Ask them to find four different Kobo coins.

Ask them to arrange the coins in order, with the smallest amount first.

Tell the pupils this is called **ascending** order (ascending means 'going up').

Tell them to draw round the coins in their exercise books.

Ask the pupils to draw them in ascending order and write the number on each coin.

## Plenary

### Whole class teaching

Ask the pupils to use their coins to find different ways to make 10 Kobo, eg: 5K, 1K, 1K, 1K, 1K and 5K, 5K.

Tell them to use the 1K, 5K and 10K coins to find different ways to make 20 Kobo.

Ask the pupils to show the class some of their ways and write them on the chalkboard.

# Relationships between coins

## Learning outcomes

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

Say some number bonds to 20.

Use different Kobo coins to make 20 Kobo.

## Teaching aids

### Before the lesson:

Have ready 0—20 number lines and cards for each pair of pupils.

Read MAN Primary Mathematics 1, pages 116 and 118.

Have ready the sets of Kobo coins for each group.

## Daily practice

### Pair task

Ask the pupils to sing '10 little fingers'.

Give out the number lines and sets of number cards.

Say a number less than 20, eg: 13.

Ask the pupils to say the number and hold up a card that will add to the number to make 20, eg: 7.

Tell them to use their number lines to work it out.

Remind them to count on from the number to 20 and count their jumps to find the missing number.

Repeat with different numbers.

10 minutes | MAN Primary Mathematics 1

## Introduction

### Whole class teaching

Tell the pupils to look in MAN Primary Mathematics 1, page 116.

Explain that one Naira is worth 100 Kobo.

Ask them to point to the coin that has the smallest value.

Choose someone to come and draw it on the chalkboard.

Repeat, asking which has the next smallest value, until all the coins are in ascending order.

25 minutes

## Main activity

### Group task

Give each group a set of coins.

Ask them if they can make 20 Kobo using 4 coins.

Ask them to name the coins they have used.

Repeat with 2 coins, 3 coins and 8 coins.

10 minutes | MAN Primary Mathematics 1

## Plenary

### Whole class teaching

Ask the pupils to look in MAN Primary Mathematics 1, page 118.

Discuss the different coins and their value.

Ask the pupils how many 10 Kobo coins make 50 Kobo.

Tell them to use their coins to find out.

Ask how many 5 Kobo coins make 50 Kobo.

# Addition of Kobo

## Learning outcomes

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

Know number bonds to 20.

Add coins with a sum of up to N1.

## Teaching aids

**Before the lesson:**

Have ready 0—20 number lines and cards for each pair.

Have ready the sets of Kobo coins for each group.

## Daily practice

**Pair task**

Ask the pupils to sing '10 little fingers'.

Give out the number lines and number cards.

Say a number less than 20.

Ask the pupils to say the number and hold up a card that will add to the number to make 20.

Tell them to use their number lines to help them find the missing number.

Repeat with different numbers.

10  
minutes

## Introduction

### Group task

Give each group a set of coins.

Ask if they can make 50 Kobo using 2 coins.

Ask them to name the coins they used.

Repeat with 5 coins, 10 coins and 4 coins.

25  
minutes

## Main activity

### Whole class teaching

Ask the pupils to count in Tens to 100 with you.

Repeat, counting in 5s.

Ask them to use their 10K coins to add up, eg:  $10K + 10K + 10K$ .

Make up other sums for them using 10K coins.

Repeat the exercise, using 5K coins.

Write the following sums on the chalkboard:

$$10K + 10K + 5K =$$

$$10K + 10K + 1K + 5K =$$

$$10K + 5K + 5K =$$

$$10K + 10K + 10K + 1K =$$

10  
minutes

## Plenary

### Whole class teaching

Ask some pupils to come out and explain how they got their answers.

Ask pupils to pick two different coins and show them to the rest of the class.

Ask the others to identify the two coins.

# Addition of Kobo

## Learning outcomes

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

Subtract two numbers less than 20.

Add money sums using coins.

## Teaching aids

**Before the lesson:**

Practise singing '10 green bottles'.

Have ready a set of coins for each group and a number line for each pair.

## Daily practice

**Pair task**

Ask the pupils to sing '10 green bottles'.

Give out the number lines.

Write the following subtraction sums on the chalkboard:

$$17 - 8 =$$

$$19 - 12 =$$

$$10 - 2 =$$

$$15 - 3 =$$

Tell the pupils to complete them in their exercise books, using the number lines to help them.

10  
minutes

## Introduction

### Whole class teaching

Ask a pupil to pick three coins and show them to the rest of the class.

Ask others to identify the different coins.

Ask the pupils which has the greatest value, which is the next and which is worth the least.

Tell them they have arranged the coins in **descending** order (descending means 'going down').

Ask another pupil to pick three different coins and repeat the activity.

25  
minutes

## Main activity

### Group task

Give each group a set of coins.

Write the following sums on the chalkboard:

$$10K + 3K =$$

$$15K + 4K =$$

$$12K + 6K =$$

$$14K + 5K =$$

$$16K + 6K =$$

Tell the groups to make the amounts for each sum with the coins and add the coins to find the answer.

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

10  
minutes

## Plenary

### Whole class teaching

Ask some of the pupils to explain how they got their answers.



# Addition and subtraction of Kobo

## Learning outcomes

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

Subtract two numbers less than 20.

Add money sums using a number line.

## Teaching aids

**Before the lesson:**

Have ready a set of coins for each group and a number line for each pair.

Read MAN Primary Mathematics 1, page 122, Exercise B.

## Daily practice

**Pair task**

Ask the pupils to sing '10 green bottles'.

Write the following problems on the chalkboard:

14K take away 6K =

How much is 12K minus 7K?

15K subtract 11K =

What is the difference between 18K and 15K?

Read them and ask the pupils what the words mean.

Ask what kind of sum they need to do to find the answer.

Tell the pupils they can work these out just like ordinary numbers using number lines.

Tell them to write the answers in Kobo in their exercise books.

10  
minutes

## Introduction

### Group task

Ask the groups to make 25 Kobo in as many ways as they can.

Ask each group to say one way they made 25 Kobo.

Ask them to make 18 Kobo with 5 coins, ie: 10K, 5K, 1K, 1K, 1K, and keep it in front of them.

Ask them to make 11 Kobo with 2 coins and keep that also.

Ask them to add up their piles of 18 Kobo and 11 Kobo and say how much money they have altogether.

25  
minutes

MAN Primary  
Mathematics 1

## Main activity

### Whole class teaching

Tell the pupils they can use coins to help them add up, or they can use a number line.

Adding  $15K + 7K$  is the same as  $15 + 7$  but with 'K' after the numbers.

Write ' $15K + 7K =$ ' on the chalkboard.

10  
minutes

## Plenary

### Whole class teaching

Ask some of the pupils to come out and explain how they got their answers.

Remind the pupils that they can use an empty number line.

Draw an empty number line and write '15' at the beginning.

Draw on 7 jumps.

Count the jumps starting at 15.

Stop at the final jump and write 22. The whole sum is  $15K + 7K = 22K$ .

Ask each pair to complete MAN Primary Mathematics 1, page 122, Exercise B, numbers 1—5 in their exercise books.



Week  
30  
Problem solving

## Words/phrases

## Assessment

**two-dimensional (2D)**

**shapes**

**square**

**rectangle**

**triangle**

**circle**

**add**

**plus**

**more**

**capacity**

**container**

**estimate**

**centimetre**

**measure**

**Monday**

**Tuesday**

**Wednesday**

**Thursday**

**Friday**

**Saturday**

**Sunday**

**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.**

# Solving problems with two-dimensional shapes

## Learning outcomes

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

Use different words for 'add'.

Use clues to help solve problems.

## Teaching aids

### Before the lesson:

Put 10 pegs on a coat hanger.

Write 'add', 'plus', 'more' and 'equals' on the chalkboard.

Copy 'Ali's garden' from the introduction on to a piece of card or paper for each group.

Have ready a set of large 2D shapes (square, rectangle, circle and triangle).

## Daily practice

### Whole class teaching

Write '+' on the chalkboard and ask if anyone knows any words for this sign, eg: add, plus or more.

Remind the pupils that 'equals' means the answer to the sum.

Count the pegs on the coat hanger with the class.

Separate the pegs into two groups.

Ask what sums the pegs show, eg: 7 plus 3 equals 10, 7 and 3 more is 10.

Turn the hanger around and ask what it shows now, eg: 3 plus 7.

Repeat using different number groups.

10  
minutes

## Introduction

### Whole class teaching

Hold up the 2D shapes and ask the pupils to name each one.

Go outside and lay the shapes in different places on the ground.

Describe a shape without saying its name, eg: 'It has 3 straight sides' (a triangle).

Tell the pupils to run and stand by the shape.

Repeat with the other shapes.

25  
minutes

## Main activity

### Group task

Give each group 'Ali's garden'.

Explain that they need to draw the vegetables in the correct shapes in Ali's garden.

Read the sentences above the picture in the introduction to help the pupils find out what grows where in Ali's garden.

As you read out each sentence, ask them to point to the shape where the vegetable grows.

Tell them to decide in their groups where the vegetables should go and draw them in the spaces.

10  
minutes

## Plenary

### Whole class teaching

Ask each group to hold up 'Ali's garden' and describe where they have put the vegetables.

Ask the other groups if they agree. If not, ask them to say why.

# Capacity problems

## Learning outcomes

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

Say sums totalling up to 20.

Solve a problem involving capacity.

## Teaching aids

### Before the lesson:

Put 20 pegs on a coat hanger.

Have ready small containers of various sizes and a cup for each group.

Have ready a large container of sand.

## Daily practice

### Whole class teaching

Choose some pupils to say words that mean add.

Count the pegs on the coat hanger with the class.

Separate the pegs into two groups.

Ask the pupils what sums the pegs show, eg: 12 plus 8 equals 20, The total of 12 and 8 is 20.

Turn the coat hanger around and ask what number sentence it shows now, eg: 8 plus 12 makes 20.

Repeat, separating the pegs into different number groups.

10  
minutes

## Introduction

### Whole class teaching

Show the pupils the containers and ask who can remember what 'capacity' means.

Hold up two containers of different sizes and ask the class to estimate which will hold the most and which will hold the least.

Ask the pupils how they can find out if they are correct.

Choose some pupils to fill cups with sand and pour it into the containers.

Count the cupfuls and discuss how accurate their estimates were.

25  
minutes

## Main activity

### Group task

Explain that you are looking for a container that will hold enough sand for six pupils to have one cupful of sand each.

Give each group a set of different sized containers and a cup.

Tell them to pour 6 cupfuls of sand into each container to find out which one will hold enough.

10  
minutes

## Plenary

### Whole class teaching

Ask each group to show the class the container they have chosen.

Ask them to explain why they chose it and ask the class to say if they agree with each group's choice.



# Measurement problems

## Learning outcomes

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

Say number bonds up to 10.

Solve problems involving length.

## Teaching aids

### Before the lesson:

Have ready a 30cm ruler for each pair.

Draw three snakes measuring 25cm, 20cm and 15cm on card for each group. (Do not let the pupils see the measurements.)

Write on the chalkboard: 'Samui the snake is 10cm on Monday. Every day he grows 2cm longer. How long is he on Wednesday?'

## Daily practice

### Pair task

Take the pupils outside.

Tell one pupil in each pair to do some jumps (no more than 10) and the other to count the number of jumps.

Next, tell their partner to do enough jumps to make 10 (eg: if the first pupil jumps 7 times their partner should jump 3 times).

Ask the pupils to do this several times with different numbers of jumps.

Choose some pairs to show their jumps to the class.

Tell the class to count as they jump and check that the total is 10.

10  
minutes

## Introduction

### Pair task

Ask if anyone remembers what we use to measure length.

Give out the rulers.

Read out the problem about Samui and ask the pairs to discuss the answer.

Ask a pair to say the answer and ask the class if they agree.

Ask,  
'When will Samui be 20cm?'

Give them time to discuss the answer.

Ask a pair to say the answer and ask the class if they agree.

25  
minutes

## Main activity

### Group task

Give each group a snakes card.

Write on the chalkboard:  
'Sani is the biggest snake.  
Ali is smaller than Samui.'

Read and explain the sentences.

Ask the groups to discuss which snake is Sani, which is Ali and which is Samui.

Tell them to write the correct name under each snake.

Ask each group to show and explain their picture.

Ask the other groups if they agree and if not, why.

10  
minutes

## Plenary

### Whole class teaching

Ask each group to say how many centimetres long each snake is.

# Number problems

## Learning outcomes

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

Say some number bonds up to 20.

Solve number problems.

## Teaching aids

### Before the lesson:

Make sure you know the different sums for the main activity.

## Daily practice

### Pair task

Take the pupils outside.

Tell one pupil in each pair to do some jumps (no more than 20).

Next, tell their partner to do some more jumps to make 20 (eg: if one pupil jumps 7 times their partner has to jump 13 times).

Ask the pairs to do this several times with different numbers of jumps.

Choose some pairs to show their jumps to the class.

Tell the class to count as they jump and check that the total is 20.

10  
minutes

## Introduction

### Group task

Write on the chalkboard, 'Ali is 3 years older than Simbi'.

Ask the pupils how old they could be, eg: 8 and 5 (any ages with a difference of 3).

Ask them to write 'Ali' and 'Simbi' in their exercise books.

Tell the groups to write as many different ages for Ali and Simbi as they can under the names.

After 5 minutes, ask each group to say some of the ages.

Tell the other groups to check there is a difference of 3 each time.

25  
minutes

## Main activity

### Pair task

Write '2, 3, 4, 5' on the chalkboard.

Tell the pupils to choose three of the numbers and add them up in their exercise books, eg: '2 + 4 + 3 = 9'.

Tell the pairs to choose a different set of numbers and add them up.

Challenge them to find as many different addition sums as they can.

10  
minutes

## Plenary

### Whole class teaching

Ask some pairs to read out their sums and the answers.

Ask the others to check that the addition is correct.

Ask each pair to count how many different answers they have got.

Record all the different answers on the chalkboard.

# Number problems

## Learning outcomes

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

Remember number bonds up to 10 quickly.

Solve number problems.

## Teaching aids

**Before the lesson:**

Make large flash cards with the numbers 0—10.

Have ready a set of day of the week flash cards for each group.

Practise singing ‘Seven days’ from the introduction.

## Daily practice

**Whole class teaching**

Ask the pupils to write 3 or 4 numbers between 0 and 10 in their exercise books.

Show a card with a number from 0—10 on it.

Ask a question about the number, eg: ‘How much greater than this number is 10?’, ‘This number plus what equals 10?’.

If they have that number in their book, tell the pupils to cross it out.

The first to cross out all their numbers is the winner.

10  
minutes

## Introduction

### Whole class teaching

Write '2' and '6' on the chalkboard.

Choose a pupil to arrange the numbers to make the biggest number they can, ie: 62 and write it on the chalkboard.

Repeat several times with different numbers.

25  
minutes

Song

## Main activity

### Group task

Sing 'Seven days' with the class.

On the chalkboard, draw a tree with 20 bananas on and write 'Monday 20 bananas'.

Explain that every day a monkey comes and eats two bananas.

Ask the pupils how many bananas there will be on Tuesday and write 'Tuesday 18 bananas'.

Ask them to copy what you have written.

Tell them to continue writing each day of the week and how many bananas are left until there are none.

10  
minutes

## Plenary

### Whole class teaching

Ask each group to say the name of the day when there are no bananas (Thursday).

## Credits

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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.

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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:

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

