

**Objectives**

By the end of this unit, pupils should be able to:

- Sort and classify objects up to 5
- Match numerals from 1 to 5 with the number of objects.

**Suggested resources**

- A counting stick – a stick between 50cm to 100cm long
- Small items to use as counters such as beads, buttons, bottle tops, stones etc
- Bananas, balls, oranges, coconuts and pineapples
- Wall chart matching numerals 1 to 5 with corresponding number of objects.
- Numeral labels 1 to 5

**Key word definitions**

*sort*: categorize or group

*classify*: divide into classes, to categorize

*object*: an item or a thing

**Frequently asked questions**

Q *What prior knowledge do the pupils need?*

A Pupils need to understand that a counting word is applied to each object being counted.

**Common errors pupils make**

Some pupils are not patient enough to count in ones and match one number to more than one object or group of objects. Pupils may gather the objects without counting them carefully or just play with the objects.

**Evaluation Guide**

Pupils to:

1. Classify and sort given number of objects from a collection.
2. Arrange given number of objects from a collection together.

**Lesson 1**

*Pupil's Book page 8; Workbook page 5*

**Preparation**

You will need to have:

- Wall chart matching numerals 1 to 5 with corresponding number of objects
- Small items to use as counters such as beads, stones, bottle tops and counting sticks
- Bananas, balls, oranges, coconuts and pineapples
- Number rhymes and number stories
- Pupil's Book
- Workbook

**Starter activity**

Begin by reading stories and number rhymes involving numbers 1 to 5. Raise up a finger and tell pupils that it is different from when you increase it to 2, then 3, 4 and 5. Ask pupils to also raise the fingers up as you do.

**Lesson focus**

Ask pupils to look at the groups of objects on page 8 of the PB and raise your fingers to represent the number of objects in each group. Mix different collections of objects and ask pupils to sort them according to group or type. Guide pupils to form groups as follows: one orange, two pineapples, three bananas, four balls and five coconuts. Repeat with different pupils. The lesson should be concluded with a review of the concept of sorting of objects up to 5.

Complete Exercise 1 on page 8 in the PB.



## Answers

### Exercise 1

5 pencils, 4 loaves of bread, 3 sweets, 1 book, 2 cars

### Worksheet 1

1. 1 book, 4 balls, 3 bananas, 2 cars, 5 pencils

#### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to sort a given number of objects from a collection of 1 to 5 items.

#### Support activity

Pupils should play in pairs by raising up the number of fingers raised by his/her partner.

#### Homework activity

Pupils should answer Question 1 of Worksheet 1 on page 5 in the WB.

## Lesson 2

*Pupil's Book page 9*



### Preparation

You will need to have:

- Wall chart matching numerals 1 to 5 with corresponding number of objects
- Small objects to use as counters such as beads, stones, bottle tops and counting sticks
- Bananas, balls, oranges, coconuts and pineapples
- Pupil's Book



### Starter activity

Remind pupils of the number of fingers they raised up at the last lesson. Repeat some of the rhymes you read during the last lesson and encourage pupils to sing or recite the rhymes with you. Look at the wall chart and point to the different groups of objects, reminding pupils how many objects are in each group.



### Lesson focus

Mix different objects and ask pupils to classify them according to group. Guide the pupils to form groups. Organize some materials on the floor of the class like oranges, shoes, books, and pencils each numbering between 1 and 5 and ask pupils to say how many of each object they can see. Repeat with different pupils.

Complete Exercise 2 on page 9 of the PB.



## Answers

### Exercise 2

5 balls, 3 rings, 2 ropes, 1 chair

#### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. Pupils should be able to classify objects from a collection of 1 to 5 items.

### Support activity

Pupils are divided into five groups with a leader in each group. Refer to the wall chart showing numerals one to five with corresponding numbers of objects and call any member from a group to say which collection of objects has a certain number. The group is clapped for if correct otherwise another group is called.

## Lesson 3

*Pupil's Book page 9; Workbook page 5*



### Preparation

You will need to have:

- Wall chart matching numerals 1 to 5 with corresponding number of objects
- Numeral labels 1 to 5
- Small items to use as counters such as beads, stones, bottle tops and counting sticks
- Bananas, balls, oranges, coconuts and pineapples
- Pupil's Book
- Workbook



### Starter activity

Ask pupils to find a partner. The one should pass a number of beads to the other who should then show a numeral label corresponding to the number of beads passed.



### Lesson focus

Mix various objects into a big collection on the floor, using no more than 5 of the same object. Divide the class into groups and ask the groups to sort the objects according to their properties, such as: size, colour, shape, texture, and so on. Ask pupils to say the number of objects in the group they make. Repeat with different pupils. The lesson should be concluded with a review of the concept of classification of objects up to 5.

Complete Exercise 3 on page 9 of the PB.



### Answers

#### Exercise 3

Ball, oranges, bottle tops, books, sweets

#### Worksheet 1

2. a) 1 ball  
b) 4 books  
c) 3 bananas  
d) 2 cars  
e) 5 pencils

**Assessment**

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. End the lesson by reviewing the concept of objects up to 5 to assess pupils' progress. Pupils could be able to classify objects from a collection of 1 to 5 items.

**Homework activity**

Divide pupils to 5 groups and ask each group to bring a number of objects like bottle tops, stones etc from home. Pupils should also complete Question 2 of Worksheet 1 on page 5 of the WB.

**Objectives**

By the end of this unit, pupils should be able to:

- Identify a number of objects in a group or collection up to 5
- Read correctly numerals up to 5
- Count correctly numerals 1 to 5.

**Suggested resources**

- Objects for counting such as pencils, crayons, bottle tops, sweets, balls, shoes, fruit
- Boxes
- Numeral labels 1 to 5
- Wall Chart showing numerals 1 to 5 matched with corresponding number of objects

**Key word definitions**

*identifying*: to establish or associate with a group

*reading*: to say aloud

**Frequently asked questions**

**Q** *What prior knowledge do the pupils need?*

**A** Pupils will need to be able to rote count from 1 to 5 and to use this knowledge to count a set of objects. They need to have one-to-one matching skills and understand that a counting word is applied to each object.

**Common errors pupils make**

Pupils can say number names in order, but do not associate them with the number of objects being counted even when touching the objects. They need to develop one-to-one conservation, matching the number count to each thing they touch and understand the count remains the same when the objects are moved into different positions. Counting backwards can present more problems than counting forwards.

**Evaluation Guide**

Pupils to:

1. Identify a given number of objects from a collection up to 5.
2. Read given numbers on the board.

**Preparation**

You will need to have:

- Oranges, apples, bananas, balls
- Small objects to use as counters such as pencils, crayons, sweets, bottle tops
- Boxes
- Numeral labels 1 to 5
- Wall chart showing numerals 1 to 5 matched with corresponding number of objects

**Starter activity**

To start this lesson, the teacher should raise up a number of fingers and ask pupils to raise the same number of fingers. Keep on changing the number of fingers and ask pupils to do the same thing. Ask pupils to find partners and play the game of identifying the number of fingers from 1 to 5 with each other.

**Lesson focus**

Make 3 groups of similar objects, such as balls, shoes and books. Give each group between 1 and 5 items. Say the number of items in a group and ask pupils to identify the correct group.

During the lesson ask one pupil to come to the front and choose the group having a particular number of objects. Let pupils work in small groups to find a certain number of objects for example, four bananas, five pencils, three crayons, two apples, one orange. Guide pupils to identify correctly. Assist pupils to carefully answer the questions in exercise 1 on page 10 in the PB.

**Answers****Exercise 1**

Pupils to touch the specified number of apples on the tree.

**Assessment**

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. Pupils should be able to identify numbers 1 to 5 from a collection of objects.

**Extension activity**

Lay out on a table five boxes. On each box write a number from one to five in both words and numerals and draw corresponding number of dots on each one. Place some objects in each box- not necessarily the correct number. Ask pupils to check whether each box contain the right number of objects. Change the objects around each day.

**Homework Activity**

Pupils should complete Question 1 of Worksheet 2 on page 6 of the WB.

## Lesson 2 *Pupil's Book page 10; Workbook page 6*



### Preparation

You will need to have:

- Oranges, bananas, pineapple, balls
- Small objects to use as counters such as pencils, crayons, leaves, sweets, bottle tops
- Boxes
- Numeral labels 1 to 5
- Wall chart showing numerals 1 to 5 matched with corresponding number of objects



### Starter activity

Work through Exercise 2 on page 10 of the PB and discuss the answers.



### Lesson focus

Let pupils work in small groups to find a certain number of objects, for example, four leaves, five pencils, three crayons, two apples, one orange. Guide pupils to identify correctly. Ask pupils to match the correct number word label with the corresponding group of objects. Listen to pupils' conversations and questions and conclude the lesson with a review of the concepts covered.



### Answers

#### Exercise 2

Green, Red, Purple, Yellow, Blue

#### Worksheet 2

1. 1, giraffe, one  
4, ostriches, four  
3, fish, three  
5, ants, five  
2, elephants, two
2. Pupils colour the 4 pineapples, the 5 bananas, and the 4 mangoes

### Assessment

Observe and listen to the pupils during the lesson and note their responses to questions. Look at their answers to the exercises in the PB and WB. Pupils should be able to identify and count groups up to 5 objects and should be familiar with the numerals 1 to 5.

### Extension activity

Ask pupils to identify the number of objects the teacher is holding by picking the same number of objects from a collection. Ask them to show the corresponding numeral label.

### Homework Activity

Pupils should complete Question 2 of Worksheet 2 on page 6 of the WB.

**Preparation**

You will need to have:

- Oranges, bananas, pineapple, flowers, apples, balls
- Small objects to use as counters such as beads, pencils, crayons, sweets, bottle tops
- Boxes
- Pupil's Book
- Numeral labels 1 to 5
- Number word labels 1 to 5
- Wall chart showing numerals 1 to 5 matched with corresponding number of objects

**Starter activity**

To start this lesson the teacher should gather 1,2,3,4,5 objects mixed together. Revise the previous lessons by separating the objects into their groups and associating each group of objects with a numeral 1 to 5. Hold up the numeral label for each group of objects and ask the pupils to read the number that appears on the label.

**Lesson focus**

Make 3 groups of similar objects, such as balls, shoes and books. Give each group between 1 and 5 items. Say the number of items in a group and ask pupils to identify the correct group. During the lesson ask one pupil to come to the front and choose the group having a number of objects. Let pupils work in small groups to find a certain number of objects e.g. four leaves, five pencils, three crayons, two apples, one orange. Guide pupils to read correctly. Read the numerals and number words together. Make a collection of different objects ranging from one to five. Ask pupils to match the correct numeral with the corresponding group of objects. Hold up the number word labels. Read the number words together. Ask pupils to match the correct number word label with the corresponding group of objects.

Assist pupils to carefully answer the questions in Exercise 3 on page 11 in the PB.

**Answers****Exercise 3**

4 bananas, 3 flowers, 5 oranges, 2 trees, 1 pineapple

**Assessment**

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. Pupils should be able to identify and read numerals 1 to 5. Pupils should be able to match the correct numeral with the group of objects.

**Extension activity**

Lay out on a table five boxes. On each box write a number from one to five in both words and numerals and draw corresponding number of dots on each one. Place some objects in each box- not necessarily the correct number. Ask pupils to check whether each box contain the right number of objects. Change the objects around each day.





## Preparation

You will need to have:

- Oranges, bananas, pineapple, flowers
- Small objects for counting such as pencils, crayons, sweets, bottle tops
- Boxes
- Pupil's Book
- Workbook
- Numeral labels 1 to 5
- Wall chart showing numerals 1 to 5 matched with corresponding number of objects



## Starter activity

Hold up a hand with 1-5 fingers raised. Pupils must raise the same number of fingers on their own hand and then say the number.



## Lesson focus

Make five groups, comprising 1 to 5 items. Lay the groups out on the floor with enough space around each group. Say a number and then ask pupils to move to stand next to the group of items with the corresponding number called. Call out numbers in any order and repeat until the activity runs smoothly. Assist pupils that are having difficulty by counting the items in the correct group using raised fingers on their hand.

Guide the pupils to work through Exercise 4 on page 11 in the PB.



## Answers

### Exercise 4

3 pencils, 4 sweets, 5 bottle tops, 2 crayons, 1 flower

### Worksheet 2

3. 2 and 4
4. a) 7  
b) 10  
c) 3  
d) 6

## Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to identify and read numbers 1 to 5 as numerals and number words. Pupils should be able to match the correct numeral and number word with the group of objects.

## Extension activity

Lay out on a table five boxes. On each box write a number from one to five in both words and numerals and draw corresponding number of dots on each one. Place some objects in each box- not necessarily the correct number. Ask pupils to check whether each box contain the right number of objects. Change the objects around each day.

## Homework Activity

Ask pupils to complete Questions 3 and 4 of Worksheet 2 on page 6 in the WB.

**Objectives**

- By the end of this unit, pupils should be able to:
- Write numbers 1 to 5 correctly
  - Arrange the numbers 1 to 5 in magnitude form.

**Suggested resources**

- Pupil's Book
- Workbook
- Pencils
- Crayons
- Wall chart showing numerals 1 to 5 matched with corresponding number of objects

**Key word definition**

*Write:* to inscribe or record

**Frequently asked questions**

**Q** *What prior knowledge do the pupils need?*

**A** Pupils need to be able to identify and read numbers 1 to 5.

**Common errors pupils make**

When writing numbers, pupils may turn the figures upside down or write them back to front. Some pupils may struggle to arrange the numbers in the correct sequence. Encourage pupils to use the Wall chart as a guide when writing numbers.

**Evaluation Guide**

Pupils to:

1. Write the numbers 1 to 5 correctly.
2. Arrange numbers 1 to 5 in magnitude form.

**Lesson 1**

*Pupil's Book page 12; Workbook page 7*

**Preparation**

You will need to have:

- Pupil's Book
- Workbook
- Labels or cards showing the numbers 1 to 5 in numerals and words
- Pencils
- Crayons
- A variety of objects for counting and sorting
- Wall chart showing numbers 1 to 5 in numerals and words matched with corresponding number of objects

**Starter activity**

Make three groups of 1 to 5 objects. Ask pupils which group has the most objects, then ask which group has the least. Change the number of objects in the groups and repeat until all pupils have had a turn.

**Lesson focus**

Remind pupils to read the numerals and number words carefully. Pupils should also be able to write the numbers. They should count the number of objects presented and write the number appropriately. Pupils should be shown the number cards with a number written in figure and its corresponding word. Pupils can now practice by tracing the numbers on page 12 of the PB.

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to trace numbers correctly. They should be able to write numbers 1 to 5 in words and figures.

### Support activity

Ask pupils to 5 cardboard squares measuring 10cm by 10cm and write numbers 1 to 5 boldly on them.

### Homework activity

Ask pupils to look out for numbers around their home. They can report back to the class on where they found the numbers. They should also practice writing the numerals and words for numbers 1 to 5. Pupils should complete Question 1 of Worksheet 3 on page 7 of the WB.

## Lesson 2

*Pupil's Book page 12*



### Preparation

You will need to have:

- Pupil's Book
- Pencils
- Crayons
- Wall chart showing numbers 1 to 5 in numerals and words matched with corresponding number of objects



### Starter activity

Work through the answers of the exercises in the previous lesson (PB page 12) to make sure all pupils are able to write the numbers 1 to 5 correctly.



### Lesson focus

Ask pupils to count the number of objects in exercises 1 and 2 on page 12 in the PB and write the correct numbers under each group of objects. Remind pupils to read the numerals and number words carefully. Write each numeral 1 to 5 on the board and below it write the number in words. Explain to the pupils that each number has a number word that goes with it. Show how to write each number word and have pupils practice by writing down the numbers 1 to 5 in words and figures in their note books 10 times. Pupils can complete this exercise during the lesson.



### Answers

#### Exercise 1

2 apples, 5 bananas, 3 oranges, 4 loaves of bread,  
1 flower

#### Exercise 2

4 ostriches, 5 buffaloes, 1 giraffe, 3 elephants,  
2 penguins

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. Pupils should be able to identify up to 5 objects and write the numbers in numeral and word form.

**Extension activity**

Ask pupils to make their own number books from 1 to 5. On each page they write the numeral and draw the corresponding number of objects. Make sure the pages are in order from 1 to 5. Display the number books on the walls of the classroom.

**Homework activity**

Ask pupils to look out for numbers around their home and report back to the class on where they found the numbers. Pupils should also practice writing the numerals 1 to 5 and the words one to five. Ask pupils to bring to school objects numbering 1,2,3,4 and 5 from home. The objects have to be different from each other for example, pebbles, stones, beads etc.

 **Preparation**

You will need to have:

- Pupil's Book
- Workbook
- Pencils
- Labels or cards showing the numbers 1 to 5 in numerals and words
- Wall chart showing numbers 1 to 5 in numerals and words matched with corresponding number of objects

 **Starter activity**

Work through the answers of the exercises in the previous lesson (PB page 12) to make sure all pupils are able to write the numbers correctly. Let pupils know that the sequence of the numbers is important. Arrange the numbers 1 to 5 in order by writing them on tags hanging on the wall of the class. Ask pupils to read the numbers forwards and backwards several times.

 **Lesson focus**

Ask pupils to read numbers 1 to 5 forwards and backwards correctly. Remind pupils to read the numerals and number words carefully. Pupils should also be able to write the numbers in order in their books and arrange numbers 1 to 5 in order of their magnitude using counters and other objects. Pupils can now complete Exercises 3 and on page 13 in the PB.

 **Answers****Exercise 3**

1, 2, 3, 4, 5

**Exercise 4**

1	2	3	4	5
5	4	3	2	1
5	4	3	2	1

**Worksheet 3**

2. a) 3, 5  
 b) 1, 4  
 c) 4, 3, 1  
 d) 4, 1

**Assessment**

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to write numbers 1 to 5 correctly and in the correct order. This will help them to be able to complete sequences of 1 to 5 with missing numbers.

**Extension activity**

Use number cards with numbers 1 to 5 written on them. Ask a pupil to pick one and another to pick the number before or after it. Repeat the practice with many pupils.

**Homework activity**

Complete Question 2 of Worksheet 3 on page 7 of the WB.

**Preparation**

You will need to have:

- Pupil's Book
- Workbook
- Pencils
- Crayons

**Starter activity**

Ask five pupils to stand next to one another. Label their shirts 1 (one), 2 (two), 3 (three), 4 (four) and 5 (five) respectively. Ask the first to shout his number aloud, and the next etc. Remove one or two of them and ask which number has been removed. Guide them where necessary. Make pupils know the number before or after their number. Repeat the exercise with many other pupils. Work through the answers of the exercises in the previous lesson (PB page 12) to make sure all pupils are able to write the numbers 1 to 5 in correct order.

**Lesson focus**

Focus on the order of numbers 1 to 5. Ask pupils to say the number before or after a number tag. Pupils should also practice writing the numbers 1 to 5 in their order of magnitude in their note books, both in numeral and word form. Pupils can now complete Exercise 5 on page 13 of the PB.

**Answers****Exercise 5**

After 2 3

After 4 5

Before 3 2

Before 5 4

Between 1 and 3 2

Between 3 and 5 4

**Worksheet 3**

3. a) 2

b) 5

c) 1

d) 4

4. a) Four flowers is more  
b) Five flowers is more  
c) Four mangoes is more
5. 1, 2, 3, 4, 5

### **Assessment**

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to identify and write the correct number missing before or after a given number.

### **Extension activity**

Challenge pupils to write the number words correctly from 1 to 5.

### **Homework activity**

Pupils should complete Questions 3, 4 and 5 of Worksheet 3 on page 8 of the WB.

**Objectives**

By the end of this unit, pupils should be able to:

- Recognize that the symbol 0 stands for nothingness
- Read the number zero
- Write 0 in figure and in words.

**Suggested Resources**

- Pupil's Book
- Workbook
- Cups
- Objects for counting such as fruit, beads, bottle tops
- Small boxes, baskets
- Cardboard with numeral 0
- Word label zero
- Wall chart showing numerals and word numbers 0 to 5 with corresponding number of objects

**Keyword definition**

*zero*: nothing, nought or an empty set

**Frequently asked questions**

**Q** *What prior knowledge do children need?*

**A** Pupils need to be able to identify, count and read numbers 1 to 5 correctly. They need to recognize numbers 1 to 5 accurately and write the numbers in order of magnitude. They should also be able to say and write which number is before or after a given number from 1 to 5.

**Common errors pupils make**

Pupils may sometimes think that there is no number before 1. Encourage them to identify zero as a number before one and help them to write it in figure and in words.

**Evaluation Guide**

Pupils to:

1. Remove objects from a box until zero objects are left in the box.
2. Write numbers 0,1,2,3,4,5 forwards and backwards in numeral and word form.



## Preparation

You will need to have:

- Pupil's Book
- Objects for counting such as, bananas, beads and bottle tops
- Small boxes
- Cardboard with numeral 0
- Word label zero
- Wall chart showing numerals and word numbers 0 to 5 with corresponding number of objects



## Starter activity

Place two bottle tops in the left palm and nothing on the right palm. Ask the pupils how many bottle tops are in the palm. Ask them to count the objects in the right palm. Let them know there is nothing there. Gather three boxes, bowls or baskets. Put four objects in one box, 5 in another and leave the third box empty. Ask a pupil to choose a box and count how many objects are inside. When a pupil chooses the empty box explain that the numeral we use to represent an empty set is 0. Hold up the numeral 0. Explain that zero means there is nothing to count. There are no objects in the box. Let the pupils know that zero comes before 1.



## Lesson focus

Guide pupils to recognize the symbol 0 correctly. Put 5 bananas in a basket and start removing the bananas until nothing remains. Let them realize when nothing remains the symbol for nothing is written 0. Pupils can now complete Exercise 1 on page 15 in the PB.



## Answers

### Exercise 1

1. 2, 1, 4, 0

## Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. Pupils should be able to say that the number zero means there is nothing to count. They should also know that zero comes before 1.

## Support activity

Let pupils practice how to recognize zero objects by emptying their bag to show that zero means nothingness .





### Preparation

You will need to have:

- Pupil's Book
- Workbook
- Objects for counting such as bananas, beads and bottle tops
- Small boxes
- Cardboard with numeral 0
- Word label zero
- Wall chart showing numerals and word numbers 0 to 5 with corresponding number of objects



### Starter activity

Gather four plastic containers with 4 bean cakes, 2 bean cakes, 0 bean cakes and 1 bean cake in them respectively. Ask pupils to count how many bean cakes are in each plastic container and say them aloud.



### Lesson focus

Guide pupils to identify and read the symbol 0 correctly. Put 5 bananas in a basket and start removing the bananas until nothing remains. Let them realize when nothing remains the symbol for nothing is written 0. Ask pupils to write 0 in their note books ten times both in numeral and word form. Encourage them to look at the Wall chart for guidance. Pupils can now complete Exercise 2 on page 15 in the PB.



### Answers

#### Exercise 2

1. 2, 5, 3, 0, 1
2. 0, 1, 2, 3, 4, 5

#### Worksheet 4

1. Pupils colour in the middle basket
2. Pupils underline four zeros
3. Pupils practise speaking in pairs

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to identify and read the symbol 0 both in numeral and word form.

### Support activity

Let pupils practice how to count and read aloud the symbol 0.

### Homework activity

Complete answers to Questions 1, 2 and 3 of Worksheet 4 on page 9 in the WB.

## Lesson 3 *Pupil's Book page 14; Workbook page 9*



### Preparation

You will need to have:

- Pupil's Book
- Workbook
- Objects for counting such as bananas, beads and bottle tops
- Cardboard with numeral 0
- Word label zero
- Wall chart showing numerals and word numbers 0 to 5 with corresponding number of objects



### Starter activity

Look at the numbers 0 to 5 on the Wall chart together. Read the numerals and number words together. Make a collection of different objects ranging from 0 to 5. Use the cardboard numerals 0 to 5 and ask pupils to match the numerals 0 to 5 with the corresponding group of objects. Hold up the number word labels. Read the number words together. Ask pupils to match the correct number word label with the corresponding group of objects.



### Lesson focus

Hold up the cardboard numerals. Show pupils how to write the numeral 0 by pointing to the starting point and move your finger around to form the number 0. Ask pupils to copy the numeral 0 in the air. Ask some pupils to come to the front and practice writing the numeral 0 on the board. Guide pupils if they begin to make mistakes. Pupils should do draw 0 to 5 objects in their note books and to write the corresponding numeral and number word below each picture. Pupils should complete Questions 4 and 5 of Worksheet 4 on page 9 of the WB.



### Answers

#### Worksheet 4

4. Pupils complete the writing outlines.
5. Pupils complete the writing outlines.

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the WB. Pupils should be able to write the numerals and number word for 0 correctly.

### Support activity

Give pupils sticks to practice forming the numeral 0 on sand or mud or use chalk to write on the chalkboard.

### Homework activity

Pupils should complete Questions 4 and 5 of Worksheet 4 on page 9.

**Preparation**

You will need to have:

- Pupil's Book
- Cardboard with numerals 0 to 5
- Word labels zero to five
- Wall chart showing numerals and word numbers 0 to 5 with corresponding number of objects

**Starter activity**

Look at the numbers 0 to 5 on the Wall chart together. Read the numerals and number words together. Arrange the numbers in order and ask the pupils to read and write in that order. Also ask them to write the numbers backwards.

**Lesson focus**

Hold up the cardboard numerals. Show pupils how to write the numerals 0 to 5 in order of their magnitude. Show the numbers written in order but with some missing and ask pupils to write the missing numerals. They should do the following questions:

**Write the missing numbers**

1. \_\_\_ 1 2 3 \_\_\_ 5
2. 0 \_\_\_ 2 \_\_\_ 4 5
3. 0 1 2 3 4 \_\_\_
4. 5 4 3 2 1 \_\_\_
5. \_\_\_ one two \_\_\_ four five

**Answers****Lesson activity**

1. 0 1 2 3 4 5
2. 0 1 2 3 4 5
3. 0 1 2 3 4 5
4. 5 4 3 2 1 0
5. Zero one two three four five

**Assessment**

Observe and listen to the pupils during the lesson. Look at their answers to the exercises given in this lesson. Pupils should be able to write the numbers 0 to 5 in correct order and fill in missing numbers in the exercises given in both numeral and word form.

**Support Activity**

Ask pupils to write the numeral 0 and zero in words in their books five times.

**Homework activity**

Divide pupils' book page into four. Write 0 in two as heading and zero in the other two spaces. Ask them to complete the spaces down by copying the "0" or the "zero".

**Objectives**

- By the end of this unit, pupils should be able to:
- Sort and classify up to 9 objects in a group or collection.

**Suggested Resources**

- Objects for counting such as balls, pebbles, buttons, bottle tops, leaves and oranges
- Flash cards of numbers 1 to 9
- Pupil's Book

**Key word definitions**

*sort*: categorize or group

*classify*: divide into groups

**Frequently asked questions**

**Q** What prior knowledge do the pupils need?

**A** Pupils will need to be able to sort, classify, count, order and write numerals 1 to 5. They will also need to read and write numbers 1 to 5 in words.

**Common errors pupils make**

Pupils can say number names in order but do not associate them with the number of objects being counted, even when touching the objects. Pupils need to develop one-to-one conservation, matching the number count to each thing they touch and understand the count remains the same when the objects are moved into different positions. They may be accurate with numbers up to 5 but have difficulty with the numbers 6 to 9. Their one-to-one conservation is still developing. Counting back can present more problems than counting forwards.

**Evaluation guide**

Pupils to:

1. Arrange a given number of objects from a collection together.

**Lesson 1**

*Pupil's Book page 16; Workbook page 10*

**Preparation**

You will need to have:

- Pupil's Book
- Workbook
- Objects for counting such as stones, bottle tops, beads
- A variety of fruit, such as mangoes, bananas, oranges, pineapples
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects

**Starter activity**

To start the lesson, recap by asking pupils to read numbers 1 to 5 and remind them that adding one finger to 5 fingers makes 6 and continue the addition of one more finger till you get to nine. Split the class into nine groups. Ask each group to look for a different number between 1 and 9. Get some collections of objects ranging from 6 to 9 objects. Ask pupils to sort the different objects into groups.

**Lesson focus**

Read from the wall chart from 1 to 9. Ask the pupils to read the numbers out loud as you point to them. Together, look at the pictures and numerals of 6 to 9 in the PB on page 16 and say what number of objects is in a particular shape and colour. Ask pupils to complete Exercise 1 on page 16 in the PB. Remind pupils to sort carefully.

## Answers

### Exercise 1

1. 10
2. 9
3. 7
4. 7
5. 6

### Worksheet 5

1. Pupils colour the third bowl from the left.
2. a) 6 ducks  
b) 7 chicks  
c) 8 sheep  
d) 9 goats

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to sort 6 to 9 objects carefully into groups and say how many of each type are in the collection. They should be able to sort clearly from mixed collections of apples, balls, stones etc.

### Extension activity

Focus on 6 to 9 objects. Ask pupils to make collections of 6 to 9 objects around the school or their homes and place the correct number label next to the collection.

### Homework activity

Divide the class into nine groups. Ask each group to bring objects between 6 and 9 objects from home. Gather the objects and group them according to number of them. Let pupils say which objects are group of 6, 7, 8 and 9 objects. Pupils to complete Question 1 and 2 of Worksheet 5 on page 10 in the WB.

## Lesson 2

*Pupil's Book pages 16 and 17; Workbook page 11*

### Preparation

You will need to have:

- Pupil's Book
- Workbook
- Objects for counting such as stones, bottle tops, beads
- Mangoes, bananas, oranges, pineapples
- Object pictures
- Labels or cards showing the numbers 6 to 9 in numerals and words
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects

### Starter activity

Guide pupils to look around the class and identify objects which can be made into groups of 6 to 9. As pupils to use objects or counters and to make into collections ranging from 6 to 9 objects.

### Lesson focus

Together, look at the pictures and numerals of 6 to 9 in the PB on page 16. Classify the objects into groups and say what object has a particular number from 6 to 9. Provide a collection of different objects from 6 to 9 of each object. Ask pupils to separate them into their groups.

Ask pupils to complete Exercise 2 on page 17 of the PB. Remind pupils to classify carefully.

### Answers

#### Exercise 2

Lions, buffaloes, elephants, rhinoceros.

#### Worksheet 5

3. 7 oranges, 9 bananas, 6 pineapples, 8 apples

### Assessment

Observe and listen to pupils during the lesson. Look at their answers to exercises in the PB and WB. Pupils should be able to classify objects into groups of 6 to 9 correctly. They should be able to classify mixed collections of apples, balls, stones.

### Extension activity

Ask pupils to make collections of objects around the school or their homes and place the correct number label next to the collection.

### Homework activity

Divide the class into nine groups. Ask each group to bring objects between 6 and 9 objects from home. Gather the objects and group them according to number. Ask pupils to say which objects are in groups of 6, 7, 8 and 9. Complete Question 3 on page 11 of the WB.

## Lesson 3 *Pupil's Book page 17; Workbook page 11*

### Preparation

You will need to have:

- Pupil's Book
- Workbook
- Objects for counting such as stones, bottle tops, beads, fruit
- Object pictures
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects

### Starter activity

Hold up a number of fingers between 6-9. Pupils must raise the same number of fingers and say the number aloud.

### Lesson focus

Set out an assortment of small objects of different shapes, colours and materials on the floor in the classroom. Ask pupils to come gather around the collection and identify all the different objects. Choose a property and ask pupils to count all the objects with that property, for example which objects are red or smooth. Ask pupils to complete Exercise 3 on page 17 in the PB. Remind pupils to classify carefully.

### Answers

#### Exercise 3

6 oranges, 7 pineapples, 9 mangoes, 8 bananas

#### Worksheet 5

4. a) 6 and 1 makes 7  
b) 7 and 1 makes 8  
c) 8 and 1 makes 9  
d) 5 and 1 makes 6

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to classify objects into group of 6 to 9 objects. They should be able to classify mixed collections of objects such as apples, balls and stones. etc.

### Homework activity

Complete answers to Question 4 of Worksheet 5 on page 11 in the WB.

## Lesson 4

*Pupil's Book page 16*



### Preparation

You will need to have:

- Pupil's Book
- Objects to use as counters such as buttons, bottle tops, fruit, balls
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects



### Lesson focus

This lesson focuses on consolidating what the pupils have learnt so far. Show collections of 1 to 5 counters. Pupils must identify the number of items and then write the correct word and the figure.

Next, show a mixed collection of various objects, with up to 9 of any one object. Ask pupils to form a group that equals 6, 7, 8 or 9 objects and then state what the common property of the items in their group is.

### Assessment

Ensure that pupils read and write the figures 1 to 5 correctly and that they correctly match up the number of items, the number in words and the number in figures. Observe pupils while they form groups of 6 to 9 items. Give guidance when needed to help all pupils complete the activity correctly.

**Objectives**

By the end of this unit, pupils should be able to:

- Identify the number of objects in a group or collection
- Count correctly numbers 1 to 9
- Read correctly numbers 1 to 9 in numerals and words.

**Suggested Resources**

- Objects to use as counters such as balls, pebbles, buttons, bottle tops, leaves and oranges
- Flash cards of numbers 1 to 9
- Pupil's Book
- Workbook
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects

**Key word definition**

*identifying*: to say or know what something is

**Frequently asked questions**

**Q** *What prior knowledge do the pupils need?*

**A** Pupils will need to be able to rote count from 1 to 9. They need to have one-to-one matching skills and be able to identify and sort a number of objects in a group up to 9.

**Common errors pupils make**

Pupils sometimes confuse the numerals 6 and 9 as they mistake one for the other. Show pupils how to write 6 as different from writing 9 by asking them to write in the air or on the playground. Hold their hands to assist if some are still confused.

**Evaluation guide**

Pupils to:

1. Identify numbers 6 to 9.
2. Read numbers 6 to 9 on board and flash cards.

**Lesson 1**

*Pupil's Book page 18; Workbook page 12*

**Preparation**

You will need to have:

- Pupil's Book
- Small objects to use as counters such as stones, bottle tops
- Mangoes, bananas, oranges, pineapples
- Cardboard numerals of 6 to 9
- Number word labels of 6 to 9
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects

**Starter activity**

Place numbers 6, 7, 8, 9 written boldly on cut out cardboards on a table. Ask pupils to pick a number mentioned by the teacher ranging from 6 to 9. Guide the pupils where they may be confused. Practice this identification of numbers 6 to 9 with many of the pupils. Then show the numerals with their corresponding words and match them together.

**Lesson focus**

Together, look at the number cards of 6 to 9 on the table and identify a given number called by the teacher. Guide the pupils to identify numbers 6 to 9 from a collection of numbers written and clipped on the wall of the class. Ask pupils to identify the numerals 6 to 9 and match them with their number word labels.



**Worksheet 6**

1. six, seven, eight, nine

**Assessment**

Observe and listen to the pupils during the lesson. Pupils should be able to identify numerals 6 to 9 and their words.

**Support activity**

Focus on 6 to 9 numerals. Ask pupils to play a game of picking a number among themselves. If a pupil picks correctly all other clap for him/her but if wrong he/she is corrected.

**Homework activity**

Ask pupils to complete Question 1 of Worksheet 6 on page 12 in the WB.

 **Preparation**

You will need to have:

- Pupil's Book
- Workbook
- Small objects to use as counters such as erasers, buttons, beads, sticks, pencils
- Cardboard numerals 1 to 9
- Number word labels 1 to 9
- Wall chart showing numerals and word numbers 1 to 9 with corresponding number of objects

 **Starter activity**

A number of objects between 1 and 9 should be placed in boxes and labelled with corresponding numeral labels. Ask pupils to bring a box containing a particular number of objects. Let another pupil count out the box chosen to confirm whether the box was the correct one. Let pupils play counting games involving numbers 1 to 9. Arrange pupils in certain numbers and ask them to count as the teacher touches the head of the stick. Pupils can be asked to touch and count by themselves while others repeat after the pupil leading the counting.

 **Lesson focus**

Fill one box with one object, another with two objects and the others with three, four, five, six, seven, eight, nine objects. During the lesson, ask one pupil to come to the front and choose a box. Ask the pupil to count the objects one at a time and place the object on the table as they count them. Ask the rest of the class to check that the pupil counted correctly by counting back into the box. Ask other pupils to come to the front and count the objects in the other boxes. Provide numeral labels for the boxes and let pupils place the correct numeral next to the number of objects. Let pupils work in small group to find a certain number of objects, for example, six buttons, seven sticks, eight bottle tops and nine pencils. Remind pupils to count carefully. Write the instructions on a piece of card so that pupils learn to connect the spoken word six with the written word six and the numeral 6 for all the numbers 6 to 9.

Ask pupils to complete Exercise 1 on page 18 of the PB.



## Answers

### Exercise 1

6 tomatoes, 8 cashew nuts, 7 pineapples 7 carrots, 9 bananas, 8 spoons, 6 apples

### Worksheet 6

2. a) 6 / six  
b) 8 / eight  
c) 9 / nine  
d) 7 / seven
3. Pupils read the numbers with a partner

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to count a set of objects up to 9. They should be familiar with the numerals and word numbers up to 9.

### Extension activity

Lay out on a table four boxes of small objects. On each box write a number from six to nine in both words and numerals and draw the corresponding number of dots on each one. Place some objects in each box- not necessarily the correct number. Ask pupils to check whether each box contains the right number of objects. Change objects around each day.

### Homework activity

Ask pupils to complete Question 2 of Worksheet 6 on page 12 in the WB.

## Lesson 3

*Pupil's Book pages 18 and 19; Workbook page 12*



## Preparation

You will need to have:

- Pupil's Book
- Workbook
- Cardboard numerals 1 to 9
- Number word labels 1 to 9
- Wall chart showing numerals and word numbers 1 to 9 with corresponding number of objects



## Starter activity

Look at the numbers 1 to 9 on wall chart together. Read the numerals and number words together. Make a collection of different objects ranging from 6 to 9. Use the cardboard numerals 6 to 9 and ask pupils to match the correct numerals with the corresponding group of objects. Hold up the number word labels. Read the number word labels together. Do same with the numerals 6 to 9.



## Lesson focus

Guide pupils to look at the numerals of 6 to 9 in the PB on page 18. Read the numerals together in the class. Ask pupils to complete Exercise 2 on page 19 in the PB.



## Answers

### Exercise 2

1. 6 pencils
2. 9 books
3. 6 crayons
4. 8 tables
5. 7 chairs.

### Worksheet 6

3. Pupils read the numbers with a partner

### Assessment

Pupils should be able to read 6 to 9 numerals and their words correctly.

**Extension activity**

Merge numerals from Unit 3 i.e. 1 to 5 with 6 to 9 and read them together. Ask pupils to make collections of 1 to 9 objects around the school or their homes and place the correct number label next to the collection.

**Homework activity**

Ask pupils to complete Question 3 of the Worksheet 6 page 12.

**Objectives**

By the end of this unit, pupils should be able to:

- Write numbers 6 to 9 correctly
- Arrange the numbers 6 to 9 in magnitude form
- Count correctly numbers 1 to 9
- Read correctly numbers 1 to 9 in numerals and words.

**Suggested Resources**

- Pupils note books
- Flash cards of numbers 1 to 9
- Pupil's Book
- Workbook
- Wall chart showing numerals and word numbers 1 to 9 with corresponding number of objects

**Key word definitions**

*ordering*: to arrange things in a certain way

*figures*: a symbol which shows numbers

*set*: a group of things of the same kind

*least*: the smallest amount

*most*: the biggest amount

**Frequently asked questions**

**Q** *What prior knowledge do the pupils need?*

**A** Pupils will need to be able to rote count in sequence from 6 to 9. They need to be able to count and read numbers 1 to 9 correctly in numeral and word form.

**Evaluation guide**

Pupils to:

1. Write the numbers 1 to 9 in their note books in numeral and word form.
2. Write numbers 1 to 9 in order of magnitude.

**Lesson 1**

*Pupil's Book page 20; Workbook page 13*

**Preparation**

You will need to have:

- Pupil's Book
- Workbook
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects
- Cardboard numerals 1 to 9

**Starter activity**

Use wall chart to reinforce the writing of numbers. Draw numbers on the chalkboard and call some pupils to the front to copy on the chalkboard.

**Lesson focus**

Hold up the wooden or cardboard numerals. Show pupils how to write these numerals by pointing to the starting point and moving your finger around to form the number. Ask pupils to copy each numeral from 6 to 9 in the air. Ask some pupils to come to the front and practice writing the numerals on the chalkboard. Guide pupils if they begin to make mistakes. Pupils do a handwriting activity to practice forming the numerals 6 to 9 correctly in their books or on paper. Teacher to make collections of dots on the chalkboard from 6 to 9 and ask pupils to copy into their books or on paper, writing the correct numeral and word name under each group of dots.

## Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. Teacher should check how the pupils trace with fingers to form the numbers and correct where necessary. Pupils should be able to write the numerals and number words 6 to 9 correctly.

## Extension activity

Give pupils sticks to practice forming numerals in the sand or use chalk on the playground or a chalkboard. Ask pupils to make their own number books from 6 to 9. On each page they write the numeral and draw the corresponding number of objects. Make sure the pages are in order from 6 to 9 and attach them to their number books from 1 to 5 they made in Unit 3.

## Homework activity

Ask pupils to complete Question 1 of Worksheet 7 on page 13 in the WB.

## Lesson 2 *Pupil's Book page 20; Workbook page 13*



### Preparation

You will need to have:

- Pupil's Book
- Workbook
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects
- Number word labels 1 to 9



### Starter activity

Use Wall chart to reinforce the writing of numbers 6 to 9 in words. Write 6 to 9 in words on the board and call some pupils to the front to spell the words six, seven, eight and nine.



### Lesson focus

Hold up the number word labels of the numerals 6 to 9. Show pupils how to write these numerals in words. Ask pupils to spell each of the numbers. Ask some pupils to come to the front and practice writing the numerals on the chalkboard. Ask pupils to write each of the numerals in words in their books. Guide pupils if they begin to make mistakes.

Ask pupils to complete Exercise 1 on page 20 in the PB.



### Answers

#### Exercise 1

9 ants, 7 buffaloes, 6 lions, 8 mice

#### Worksheet 7

2. six / 6  
seven / 7  
eight / 8  
nine / 9

## Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to write the numerals 6 to 9 in words correctly.

**Extension activity**

Ask pupils to make their own number books from 6 to 9 written in words. On each page they write the numerals 6 to 9 in words and draw the corresponding number of objects. Make sure the pages are in order from six to nine and attach them to their number books from one to five they made in Unit 3.

**Homework activity**

Ask pupils to complete Question 2 on page 13 in the WB.

 **Preparation**

You will need to have:

- Pupil's Book
- Workbook
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects
- Cardboard numerals 1 to 9
- Number word labels 1 to 9

 **Starter activity**

Use wall chart to reinforce the ordering of numbers. Write the numbers on the chalkboard and remind pupils that 6 is the number before 7 as 7 is before 8, 8 is the number before 9. Then disarrange numbers 6 to 9 on the board and ask some pupils to come to the front to rearrange them. Do this activity with many children in the class.

 **Lesson focus**

Hold up the cardboard numerals. Show pupils how to arrange these numerals in order of their magnitude by pointing to the starting number and counting on. Ask pupils to copy how the teacher writes the numbers in order. Ask some pupils to come to the front and practice writing the numerals 6 to 9 on the chalkboard according to their magnitude. Guide pupils if they begin to make mistakes. Pupils do a handwriting activity to practice writing the numerals and word numbers 6 to 9 in order in their books or on paper.

Ask pupils to complete Exercise 2 on page 20 in the PB.

 **Answers****Exercise 2**

6, 7, 8, 9

6, 7, 8, 9

6, 7, 8, 9

## Worksheet 7

3. a) 9  
b) 8  
c) 8  
d) 9
4. 6
5. 9
6. 7

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to write the numerals and number words 6 to 9 in their correct order.

### Extension activity

Pupils should ask the ages of their friends and arrange them in order forwards and backwards (from highest to lowest number).

### Homework activity

Ask pupils to complete Questions 3 to 6 of Worksheet 7 on page 14 in the WB.

## Lesson 4 *Pupil's Book page 20; Workbook page 14*



### Preparation

You will need to have:

- Workbook
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects
- Cardboard numerals 1 to 9
- Number word labels 1 to 9



### Starter activity

Use wall chart to reinforce the ordering of numbers in words. Write the word numbers on the chalkboard remind pupils that six is the number before seven as seven is before eight, eight is the number before nine. Then disarrange numbers six to nine on the board and ask some pupils to come to the front and rearrange them. Do this activity with many children in the class.



### Lesson focus

Hold up the number word labels for six to nine. Show pupils how to arrange these numbers in order of their magnitude by pointing to the starting number and counting on. Ask pupils to copy how the teacher writes the numbers in order. Ask some pupils to come to the front and practice writing the numbers six to nine on the chalkboard according to their magnitude. Guide pupils if they begin to make mistakes. Pupils do a handwriting activity to practice writing the numbers six to nine in order in their books or on paper.



### Answers

#### Worksheet 7

7. Six, seven, eight, nine  
Eight, seven, six, five
8. 6 / six  
7 / seven  
8 / eight  
9 / nine

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the WB Pupils should be able to write the numbers six to nine in their correct order.

### Extension activity

Pupils should ask for their friend's age, write them in words and arrange them in order and also backward (from highest to least number).

### Homework activity

Ask pupils to complete Questions 7 and 8 of Worksheet 7 on page 14 in the WB.

## Lesson 5

Pupil's Book page 21

### Preparation

You will need to have:

- Pupil's Book
- 30 sweets or other small objects
- Wall chart showing numerals and word numbers 1 to 9 matched with corresponding number of objects
- Cardboard numerals 1 to 9
- Number word labels 1 to 9

### Starter activity

Ask four pupils to come to the front of the class. Give the first pupil (A) six sweets to hold, the second (B) nine sweets, the third (C) seven sweets and the fourth (D) eight sweets. (Beads, leaves or other small objects can be used instead of sweets). Ask pupils to count carefully the number of sweets they are holding. Ask each pupil in turn the number of sweets they each have. Have these four pupils all got the same number of sweets? Do any of these have same number? Does B have more sweets than A and D or less? Does C have more or less sweets than B? Does C have more or less sweets than A? Who has the most? Who has the least?

### Lesson focus

Ask pupils to look at the example on page 21 of the PB. Point out to them that 6 is one more than 5, 7 is one more than 6 etc. up to 9 so that we can say that 7 is more than 6, 8 is more than 7, 9 is more than 8. In the same way 8 is less than 9, 7 is less than 8 and 6 is less than 7 hence 9 is more than all of them while 6 is the least. Ask pupils to complete Exercise 3 on page 21 in the PB.

### Answers

#### Exercise 3

1. Circle 9 pencils
2. Circle 8 crayons



**Assessment**

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. Pupils should be able to say which number from 6 to 9 is more than the other and which is less than the other.

**Extension activity**

Ask pupils to compare their ages. Who is older and who is younger? Try to compare your age with about five of your mates. Are any of your mates the same age as you?

**Homework activity**

Ask pupils to find out which number is after 9.

**Objectives**

By the end of this unit, pupils should be able to:

- Recognize 10 as a group
- Write the number 10 as a numeral and word number.

**Suggested Resources**

- Pupils note books
- Objects to use as counters such as buttons, balls, fingers, bottle tops, toes, sticks
- Pupil's Book
- Wall chart showing numerals and word numbers 1 to 10

**Frequently asked questions**

**Q** *What prior knowledge do the pupil's need?*

**A** Pupils need to be able to rote count and write the numbers in sequence from 1 to 9. They will use this knowledge to recognize 10 as one more than 9.

**Common errors pupils make**

Pupils may sometimes think that 10 is a number with two separate digits that could be pronounced one and zero. Show pupils that the two digits give a number called ten and written in figure 10.

**Evaluation guide**

Pupils to:

1. Write the numbers 1 to 10 in their note books.
2. Order numbers 1 to 10 according to their magnitude.

**Lesson 1**

*Pupil's Book page 22*

**Preparation**

You will need to have:

- Pupil's Book
- Wall chart showing numerals and word numbers 1 to 10
- Cardboard numerals
- Number word labels

**Starter activity**

Start the lesson by telling pupils that 1 more than 9 is called ten written 10. Then gather different objects with some 8 in number, some 9 and some 10. Ask pupils to sort out the objects that are ten in number, that is, 1 more than nine. Say the number of objects in a mixed collection of balls, pencils, people, chair etc.

**Lesson focus**

Show pupils how to sort and classify objects up to 10 in number. Guide pupils if they begin to make mistakes. Lead pupils to classify objects that are 10 in a mixed collection. Show numbers 1 to 10 on the board and point out the number 10 among the numbers. Ask pupils to complete Exercise 1 on page 22 in the PB.

**Answers****Exercise 1**

Pencils, Books, Coconuts

### Assessment

Pupils should be able to sort and classify up to 10 objects in a collection.

### Extension activity

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. Ask pupils to go around the school and collect ten objects such as leaves, stones, pebbles, buttons, bottle tops or other counters.

### Homework activity

Pupils should mention four objects from home that can be up to 10 in number.

## Lesson 2

*Pupil's Book page 23*

### Preparation

You will need to have:

- Pupil's Book
- Small objects to use as counters such as beads, pencils, stones
- Wall chart showing numerals and word numbers 1 to 10
- Cardboard numerals

### Starter activity

Revise the reading and writing of numbers 1 to 9. Ask pupils to count 9 beads and add one more. Let them know that 9 and one more is called 10 and ten in words. Show a flashcard where 10 is written in both numeral and word to the pupils. Use the wall chart to reinforce the reading and writing of the number 10. Ask pupils to count out 10 objects like counters, beads, pencils, stones and say the number of objects.

### Lesson focus

Show pupils how to read the numerals 10 as 1 and 0 put together. Lead them to see that 10 is a group and if you have 14, it means a group of ten and 4 units. Guide pupils if they begin to make mistakes. Ask pupils to read numbers 1 to 10 in forwards and backwards. They should also be able to identify and read numbers 1 to 10 in words. Ask pupils to complete Exercise 2 and the puzzle on page 23 in the PB.

### Answers

#### Exercise 2

10 ten (repeated 4 times)

#### Puzzle

10 groups of 10 objects

**Assessment**

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. Pupils should be able to read the numeral 10. They should be able to join 10 to the numbers 1 to 9 they have learnt in the previous units to form numbers 1 to 10 and write them in order of magnitude. Pupils should be able to read the numbers 1 to 10 backwards. To assist with this assessment, ask some pupils to come out and arrange numbers 1 to 10 in the order of magnitude using flashcards put on a table.

**Extension activity**

Ask pupils to make their own number books from 1 to 10. On each page, they write the numeral and the number word and draw the corresponding number of objects. Make sure that the pages are in order from 1 to 10 and attach them to their number books from 1 to 9 which they made in unit 7.

 **Preparation**

You will need to have:

- Pupil's Book
- Workbook
- Wall chart showing numerals and word numbers 1 to 10
- Cardboard numerals 1 to 10
- Number word labels 1 to 10

 **Starter activity**

Revise the writing of numbers 1 to 9. Draw the number ten as dotted lines and have pupils practice writing in words and figures. Show a flashcard where 10 is written in both numeral and word to the pupils. Use Wall chart to reinforce the writing of number 10.

 **Lesson focus**

Show pupils how to write the numeral 10 as 1 and 0 put together. Ask pupils to copy numerals from 1 to 10 in their books. Guide pupils if they begin to make mistakes. Ask pupils to write the numbers 1 to 10 forwards and backwards. They should also be able to write the numbers 1 to 10 in words. Ask pupils to complete Exercise 3 on page 23 in the PB.

 **Answers****Exercise 3**

1, 2, 3, 8, 10

**Worksheet 8**

1. Pupils complete the writing.
2. 10 packets, 10 books, 10 pencils, 10 cars

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to write the number 10 in numerals and as a word number. They should be able to join 10 to the numbers 1 to 9 they have learnt in the previous units to form numbers 1 to 10 and write them in order of magnitude. Pupils should be able to write the numbers 1 to 10 backwards. To assist with this assessment, ask some pupils to come out and arrange numbers 1 to 10 in the order of their magnitude using flashcards put on a table.

### Homework activity

Ask pupils to complete Questions 1 and 2 of Worksheet 8 on page 15 in the WB.

## Lesson 4

*Pupil's Book page 22*



### Preparation

You will need to have:

- Pupil's Book



### Lesson focus

This lesson focuses on consolidating what the pupils have learnt so far about writing numbers in numeral and word form. Draw a picture of different groups of objects from 1 object to 10 objects on the board. Ask pupils to work on their own to draw the objects and then write the number of objects in each group in words and in figures.

### Assessment

Ensure that pupils write the numbers 1-10 correctly and that they correctly match up the number of items with the number in words and the number in figures. Observe pupils while they complete the activity and note which pupils struggle or make mistakes. Also note the first 5 pupils to complete the activity correctly. Ask these 5 pupils to partner with the pupils you previously identified needing help in order to complete the activity.

**Objectives**

By the end of this unit, pupils should be able to:

- Recognize 10 as a group
- Read and write numbers up to 20
- Use the idea of place value limited to tens and units
- Understand the importance of 10 in the number system.

**Suggested Resources**

- Pupils note books
- Small objects to use as counters such as buttons, balls, fingers, bottle tops, toes, sticks
- Pupil's Book
- Workbook
- Wall chart showing numerals and word numbers 1 to 20
- Items for collecting into groups of 10
- Pots for putting groups of 10 into
- Number cards 0 to 20

**Key word definitions**

*place value*: the value of the position or place of a digit in a number

*tens*: the left-hand place value of a two-digit number

*units*: the place value of a one-digit number

**Frequently asked questions**

**Q** *What prior knowledge do the pupils need?*

**A** Pupils will need to be able to rote count up to 10. They should also be able to read and write the numerals and number words up to 10 and understand the concept of 10 as a group.

**Common errors pupils make**

Pupils often confuse the number words thirteen and fifteen as they do not keep the pattern of other teen numbers. Counting backwards is more difficult than counting forwards and requires practice. Likewise, giving a number after a given number.

Particular problem points are 20, 19 and 13,12 where the pattern in the number words changes. Pupils will often reverse the digits in two-digit numbers. They need to see the importance of writing them in correct order, as the position of the digits has meaning. The zero digit can cause all sorts of problems. To many pupils, zero represents nothing and can therefore be ignored. Pupils need to develop a solid understanding of the use of zero as an empty place holder.

**Evaluation guide**

Pupil's to:

1. Select ten objects from a collection.
2. Read and write from 10 to 20 in tens and units.
3. Read, write and order numbers up to 20.

## Lesson 1

*Pupil's Book pages 24 and 25*



### Preparation

You will need to have:

- Pupil's Book
- Objects to use as counters such as beads, balls
- Wall chart showing numerals and word numbers 1 to 20



### Starter activity

To start the lesson, pupils follow the teacher as he counts beyond 10. You could either let pupils find objects such as leaves or stones or other items in the classroom to make a set of 20. Give pupils number cards and ask them to match the right number of objects to each card. Ask pupils to check each other's counting. As numbers become larger, the greater the chance of making a mistake.



### Lesson focus

Refer to PB page 24. Show pupils that 10 is a group to which other numbers are added to make 11, 12, 13 and so on by demonstrating using objects in groups of ten to which other objects are added to make the larger numbers. Write the numbers on the board in numeral and word form and ask pupils to copy them into their note books so that they learn to count, read and write from 10 to 20. Ask pupils to say which number is before or after a given number up to 20.

Pupils should then complete Exercise 1 on page 25 of the PB.



### Answers

#### Exercise 1

1. 5
2. 8
3. 1

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. By asking specific questions to individual pupils, teachers can help clarify any issue they are not sure of. For example you can ask pupils to count from 1 to 20 or from 11 to 17 or in any range on which you require particular confirmation. To assist with assessment, provide pupils with two sets of cards, one showing the number words and one the numerals. Allow pupils to play the game of matching the numerals with their corresponding words. Pupils should be able to count, read and write up to 20 forwards and backwards. Pupils should understand tens and units.

### Extension activity

Join two sets of cards together and play Snap. Shuffle the cards and deal them out between up to four players. Pupils take turns to place a card in front of them. If their card matches another player's card (this time it could be 11 and 11, 11 and eleven or eleven and eleven), They say "snap" and receive the other player's cards. The winner is the player who ends up with all the cards.



### Preparation

You will need to have:

- Pupil's Book
- Sticks or straws
- Wall chart showing numerals and word numbers 1 to 20



### Starter activity

Talk to the class about place value and what it means. Explain the terms units, tens and place value. The place value of any number is the value of any digit in the number, and can be a number between 0 and 9. The place value is quantified in units and tens. This means that a 4 in the units place is the same as 4 single sticks. A 4 in the tens place is the same as 4 bundles of ten sticks. Illustrate this with sticks.



### Lesson focus

Work through the example on page 24 of the PB. Tell pupils to close their books while you work through the example. Write numbers from 11-20 on the board and show how each number is broken down into place value. Ask different pupils to come and show the number, representing them with individual and bundles of 10 sticks.



### Answers

#### 1. Worksheet 9

- a) 11, 12, 13, 14, 15, 16
- b) 13, 14, 15, 16, 17, 18
- c) 12, 13, 14, 15, 16, 17
- d) 15, 16, 17, 18, 19, 20
- e) 16, 17, 18, 19, 20, 21  
or 22, 21, 20, 19, 18, 17

#### 3. eleven, oranges, 11

twelve, nuts, 12

thirteen, balls, 13

fourteen, pineapples, 14

fifteen, avocados, 15

sixteen, mangoes, 16

twenty, apples, 20

#### 4. 11, 12, 13, 14, 15, 16, 17, 18, 19, 20

### Assessment

Observe pupils and correct them when they make mistakes in their representations. Pupils should be able to understand and demonstrate place value using objects.

### Homework activity

Pupils should complete Questions 1, 3 and 4 of Worksheet 9 on pages 16 and 17 in the WB.



### Lesson 3 *Pupil's Book page 26; Workbook page 16*



#### Preparation

You will need to have:

- Pupil's Book
- Workbook
- Large 0 to 9 digit cards



#### Starter activity

Place 0-9 digit cards in a circle on the floor, not in sequence. Mark the cards for 1 and 2 with a coloured pen. Those marked cards will be the tens digit, which is 1 and 2 in this case, and the others the single digits. Divide the class into two teams. First person from each team walks around the edge of the circle, on opposite sides.

When the teacher calls stop the child places their toe on the card they are next to, and looking at both their card and the other person's card, calls out the digits between 10 and 20. The first person to call the correct number stays in while the other returns to the back of their team and the next in line joins the circle.



#### Lesson focus

Introduce the words "place value" and explain to the pupils that whichever place or position a digit has in a number tells you the value of that digit. Discuss with the pupils digits you can have in any column. Explain that a group of 11 objects is made up of 1 group of ten and 1 unit and so on. Guide the pupils to carry out similar exercises for 12, 13, 14, 15, 16, 17, 18, 19, 20.

Pupils should then complete Exercise 2 on page 26 of the PB.



#### Answers

##### Exercise 2

- a) 11 pens
- b) 12 books
- c) 13 crayons
- d) 14 apples
- e) 15 cups
- f) 16 spoons
- g) 17 buttons
- h) 18 flowers

- i) 19 cars
- j) 20 sweets

#### Worksheet 9

2. a) 12  
b) 15  
c) 11  
d) 18

#### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Continuous observation during teaching will highlight whether pupils have grasped the concepts or not. Pupils should be able to separate a collection of 11 to 20 objects into tens and units.

#### Extension activity

Ask pupils to write numbers 11 to 20 on a piece of cardboard and to show how many tens and units are in each number.

#### Homework activity

Pupils should complete Question 2 of Worksheet 9 on page 16 of the WB.

**Objectives**

By the end of this unit, pupils should be able to:

- Identify and read numbers 1 – 99 correctly.

**Suggested Resources**

- Pupils note books
- Flashcards of numbers
- Pupil's Book
- Workbook
- Wall chart showing numbers 1-99

**Frequently asked questions**

**Q** *What prior knowledge do the pupils need?*

**A** Pupils should be able to count forwards and backwards up to 20. They should also be able to read and write numbers up to 20 in numerals and word numbers. Pupils should understand tens and units and place value.

**Common errors pupils make**

Pupils (and particularly the left-handed pupils) may still reverse digits when writing numbers. If pupils reverse digits, ask them to explain the number they have written in terms of groups of 10 and ones left over. Pupils themselves need to be able to identify when they have made a mistake and self-correct their work. Some pupils have difficulty with crossing the decades, for example, 69,70 or 89, 90. This problem becomes even more evident when pupils are counting backwards, for example 70, 69. Pupils need plenty of practice at decade crossovers. Most pupils find it helpful to see the numbers written down on a number line or a 100 square. Actually writing these numbers helps others, as does plenty of oral practice.

**Evaluation guide**

Pupils to:

1. Identify and read correctly given numbers between 1 and 99.

**Lesson 1**

*Pupil's Book page 28*

**Preparation**

You will need to have:

- Pupil's Book
- Flashcards, Number labels 1 to 99
- Wall chart showing numbers 1 to 99

**Starter activity**

Look at the numbers 1 to 99 on the wall chart together. Provide pupils with plenty of opportunities to identify numbers 1 to 99. Show them that when 1 is added to 9 we have 10, when 1 is added to 19 we have 20 and so on. Point out 10, 20, 30, 40, 50, up to 90 and explain how many tens and units are in each of the numbers in the 100-square chart. Use the 100 square to identify particular numbers. Ask the pupils to find the numbers 23 or 68 on the 100-square chart and so on.

**Lesson focus**

Pupils should be able to identify numbers 1 to 99 correctly. Pupils should be shown flashcards with numbers between 1 to 99 and say what number is raised up. If he is correct say “buzz” otherwise correct the pupil. Pay particular attention to the decade numbers and assist pupils to understand the number between one decade and the other.

### Assessment

Observe and listen to pupils during the lesson. Pupils should be able to identify numbers 1 to 99 correctly. Pupils should be able to say which number is on the flashcard held by the teacher and to raise the same number card.

### Extension activity

Use two sets of the digit cards from 0 to 9. Turn over two cards to make a two-digit number. Say the number and the number one more or one less than the number. Repeat the activity but say the number which is 10 more or 10 less than the given number in the range 1 to 99. Repeat until all the digit cards have been used.

## Lesson 2

*Pupil's Book page 29; Workbook pages 18-19*



### Preparation

You will need to have:

- Pupil's Book
- Workbook
- Flashcards, Number labels 1 to 99
- Wall chart showing number 1 to 99



### Starter activity

Explain how many tens and units in each of the numbers in the 100-square chart. Ask the pupils to specific numbers on the 100-square chart. Guide the pupils to read the numbers 1 to 99 by rote from the 100-square chart. When reading the numbers and they reach 10, 20, 30, 40, 50 60, 70 80, 90 let the teacher say 'buzz' or any other fun word you choose instead of the decade numbers. Let the pupils also try to read backward from 99. Repeat this task many times and with many pupils. Also try to say "buzz" at every fifth number, that is, 5,10,15,20,25, etc. Pupils do this counting up to 95 and try counting back from 95.



### Lesson focus

Skip reading sequences provide pupils with useful strategies for reading larger quantities and build a foundation for multiplication tables.

Pupils should be able to read in tens from 1 to 99 correctly and accurately. Pupils should read in tens forwards and backwards from any number for example, 4, 14, 24, 34, 44, etc.

They should complete Exercise 1 and the puzzle on page 29 in the PB.



### Answers

#### Exercise 1

- a) 28
- b) 41

#### Puzzle

100

## Worksheet 10

- 10, 20, 30, 40, 50, 60, 70, 80, 90
- a) 51  
b) 77  
c) 65  
d) 98

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to read numbers 1 to 99 correctly. They should be able to read forwards and backwards in 10s and 5s in the range 1 to 99. They should also be able to read forwards and backwards from any number. Before proceeding from this unit, pupils need to be able to read 1 more than 99 which is 100.

### Extension activity

Challenge pupils to complete the puzzle on page 29 in the Pupil's Book.

### Homework activity

Pupils should be able to spell the words of the decade numbers and practice. They should also complete Questions 1 and 2 of Worksheet 10 on pages 18 and 19 in the WB.

## Lesson 3 *Pupil's Book page 29; Workbook page 19*

### Preparation

You will need to have:

- Pupil's Book
- Workbook
- Flashcards, Number labels 1 to 99

### Starter activity

Use two sets of the digit cards from 0 to 9. Turn over two cards to make a two-digit number. Say the number and the number one more or one less than the number. Repeat the activity but say the number which is 10 more or 10 less than the given number in the range 1 to 99. Repeat until all the digit cards have been used.

### Lesson focus

Skip reading sequences provide pupils with useful strategies for reading larger quantities and builds foundation for multiplication tables. Pupils should be able to read in tens from 1 to 99 correctly and read them accurately. Pupils should read forward and backward from any number say 4, 14, 24, 34, 44, etc. They should complete Exercise 2 on page 29 in the PB.

### Answers

#### Exercise 2

- a) 40  
b) 64  
c) 80  
d) 13
- a) 63  
b) 98  
c) 49  
d) 79

#### Worksheet 10

- Pupils count aloud
- Pupils count aloud
- Pupils work with a partner and read the numbers aloud

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to read numbers 1 to 99 correctly. They should be able to read forward and backwards in 10s, and 5s in the range 1 to 99. They should also be able to read forward and backwards from any number. Before proceeding from this unit, pupils need to be able to read 1 more than 99 which is 100.

### Homework activity

Pupils should practice spelling the decade numbers. They should also complete Questions 3, 5 and 6 of Worksheet 10 on page 19 in the WB.

## Lesson 4

*Pupil's Book page 28*

### Preparation

You will need to have:

- Pupil's Book

### Starter activity

Ask each pupil to draw a blank table in their book with 10 rows and 10 columns.

### Lesson focus

The focus of this lesson is to consolidate the numbers 1 to 99. Pupils must fill in the numbers 1 to 99 on the blank table they drew.

### Assessment

Observe and listen to the pupils during the lesson. Pupils should be able to write the numbers 1 to 99 in figures. Check the table drawn by each pupil. Make sure the numbers all appear and in the correct order.

### Extension activity

Pupils fill in the bottom-right square of their table, after the number 99.

### Homework activity

Pupils who did not correctly write the numbers 1 to 99 can take the teacher's corrections and prepare a correct table.

**Objectives**

By the end of this unit, pupils should be able to:

- Write correctly the numbers 1 to 99.

**Suggested Resources**

- Pupils note books
- Flashcards of numbers
- Pupil's Book
- Wall chart (100-square chart)

**Frequently asked questions**

**Q** *What prior knowledge do the pupils need?*

**A** Pupils should be able to count forwards and backwards in the range 1 to 99 in 1s, 5s, and 10s. Pupils should be able to identify and read numbers in the range 1 to 99. Pupils should have understanding of how numbers are written in terms of groups of 10 and one left over (early place value knowledge). The unit extends pupil's knowledge of numbers within the range of 1 to 99, counting a set and understanding the quantity value. It also further explores the way numbers are written using pupils' early knowledge about place value and groups of 10.

**Evaluation guide**

Pupils to:

1. Write and order correctly numbers between 1 and 99 as numerals and word numbers.

**Lesson 1**

*Pupil's Book page 30; Workbook page 20*

**Preparation**

You will need to have:

- Pupil's Book
- Workbook
- Scissors
- Wall chart showing 100-square numbers

**Starter activity**

Ask pupils to locate numbers on the 100 square by following instructions such as:

Find the number that is 2 tens and 4 units. What is the number? What number is 10 more than 46? What number is 10 less than 97? What number is 20 more than/ less than? Challenge pupils to ask each other questions.

**Lesson focus**

Make some blank 100 squares and ask pupils to fill in all the numbers. Cut the 100 squares along the lines into different shapes to make a jigsaw puzzle. Pupils then reassemble their 100 squares. They can swap jigsaw puzzles with a friend and assemble the new one. (Before they swap, let pupils write their name or initials on each piece of their jigsaw puzzle.)

Pupils then answer question 1 of Worksheet 11 on page 20 in the WB.

**Answers****Worksheet 11**

1. All numbers omitted. Teacher to guide.

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB and WB. Observe how pupils assemble the 100 squares jigsaw puzzle to assess their understanding of how a 100 square works. Pupils should be able to give a number one more and one less than any number in the range 1 to 99. Pupils should also be able to give the number 10 more and 10 less than any number in the range 1 to 99.

### Extension activity

Play a game involving counting in 1s, 5s and 10s.

### Homework activity

Pupils should complete Question 1 on of Worksheet 11 on page 20 in the WB.

## Lesson 2

*Pupil's Book page 31; Workbook pages 20 and 21*



### Preparation

You will need to have:

- Pupil's Book
- Workbook
- Flashcards with numerals 0-99 written on them
- Cards with number words one to nine and the decade numbers ten, twenty, thirty, forty, fifty, sixty, seventy, eighty, ninety written on them
- Wall chart showing 100-square numbers



### Starter activity

Draw a grid on the board and invite the pupils to give a 2-digit number to be written in each square. Place the decade word cards face down spread out on one table and the 1 to 9 cards face down spread out on another table. Ask a pupil to select a decade number and another pupil to select a 1 to 9 number. Hold the two cards up together to make a 2-digit number. Pupils read the number and if the number is in one grid they can cross it off. Once a card has been used it cannot be used again. The pupils will need to think carefully about the numbers they put on the grid. Pupils can draw a grid in their books and choose nine two digit numbers for themselves and play the game like a bingo game.



### Lesson focus

The starter activity also provides much of the Lesson focus as it provides the opportunity for reading number words. Children also need to be able to write the number words as well as the digits. The game could be played with the pupils writing the number words on their game board and two digit numeral cards being drawn from a bag or box. When the pupil has a matching number word to a numeral they can cross it off. Pupils should complete Exercises 1 and 2 on page 31 in the PB.





## Answers

### Exercise 1

Twenty-nine, thirty-three, fifty-seven, eighty-two, seventy-five, twenty-four, ninety-five.

### Exercise 2

25, 61, 43, 79, 84, 93, 37, 99

### Worksheet 11

2. a) 34 (Thirty-four)  
 b) 35 (Thirty-five)  
 c) 66 (Sixty-six)  
 d) 72 (Seventy-two)  
 e) 91 (Ninety-one)
3. a) Twenty-one  
 b) Thirty-five  
 c) Seventy-three  
 d) Eighty-nine  
 e) Ninety-six  
 f) Sixty-seven

### Assessment

Observe the pupils and their number grids during the Starter activity and during the lesson. Look at their answers to the exercises in the PB and WB. Pupils should be able to read and write numerals 1 - 99 correctly. They should also be able to write numbers 1- 99 in words.

### Extension activity

Use two sets of the digit cards from 0 to 9. Turn over two cards to make a two-digit number. Write the number and the number one more or one less than the number. Repeat the activity but write the number which is 10 more or 10 less than the given number in the range 1 to 99. Repeat until all the digit cards have been used.

### Homework activity

Pupils should already be able to spell and write zero to ten. Ask them to practise spelling the decade numbers correctly. Pupils to answer questions 2 and 3 of Worksheet 11 on page 20 and 21 in the WB.

## Lesson 3

Pupil's Book page 30



### Preparation

You will need to have:

- Pupil's Book
- Flashcards with numerals 0 to 99 written on them
- Number strips
- Cards with number words one to nine and the decade numbers ten twenty, thirty, forty, fifty, sixty, seventy, eighty, ninety written on them.
- Wall chart showing 100-square numbers



### Starter activity

Play the game Squeeze. The object of this game is for the pupils to identify the mystery number, selected by the teacher by asking questions. The teacher has two markers which initially are placed at either end of numbers 1 to 100 (in a 100 square chart.) The pupils might ask "Is the number more than 30? If it is, the teacher moves the marker from 1 to thirty so the mystery number is now between 30 and 100. The game continues until the mystery number is identified by being squeezed between the pegs. Challenge the pupils to find the mystery number in less than ten questions (quite easy) or less than 5 questions (not too easy).



### Lesson focus

Draw a series of 10 boxes on the board and write a number in the first and last box. Point to any of the empty boxes and ask the pupils which number would go in the box. For example, write 63 in the first box and 72 in the last box. Point to the box next to 63 and ask "What number goes here?" When a child responds with the correct number it is important to follow up with the question "How do you know that?" The response you are looking for is "Because 64 is one more than 63". Use empty boxes that will require the pupil to respond using knowledge of number before as well as number after and number between.

Hand out a number strip to each group or pair. Each strip should have a different start and end number so they can be swapped to provide another exercise. One person in the group or pair acts as teacher and asks what number will go here. The



partner of the group must identify the number and give the reasons why the number is correct using the language before, after, more or less than. Ask pupils to write the numbers below in order of their magnitude or from lowest to highest:

1. 2      42      17      56      35      60
2. 98     45      18      39      21      99
3. 45     87      39      10      51      70
4. What is 1 more than
  - a) 18
  - b) 59
  - c) 32
  - d) 18in numerals?
5. What is one less than
  - a) 34
  - b) 47
  - c) 90
  - d) 40in words?
6. Write a number between
  - a) 95 and 97
  - b) 39 and 41
  - c) 84 and 86



## Answers

### Lesson activity

1. 17      23      35      42      56      60
2. 18      21      39      45      98      99
3. 10      39      45      51      70      87
4.
  - a) 19
  - b) 60
  - c) 33
  - d) 19
5.
  - a) thirty-three
  - b) forty-six
  - c) eighty-nine
  - d) thirty-nine
6.
  - a) 96
  - b) 40
  - c) 85

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises given in this lesson. Spot check- ask individuals at any time “Give me the number before or after.....” or “Give me number one more and less than a given number in the range 1 to 99”. Pupils should be able to give number before and after a given number in the range 1 to 100.

### Extension activity

Use numbers larger than 100 on the paper strips.

### Homework activity

Pupils should write numbers 1 to 100 as a 100 square chart from home.



### Preparation

You will need to have:

- Pupil's Book
- Buttons or similar small objects to create pairs
- Wall chart showing 100-square numbers with even numbers circled



### Starter activity

Ask the children to find a partner. Does everyone have a partner or is there an odd one left over? How many boys are in the class? Record the number on the board. Ask the girls to find a partner. Does everyone have a partner or is there an odd one left over? How many girls are in the class? Record the number on the board. You may have had all odd numbers or all even numbers or a mixture of both.

Introduce the terms:

even number- a number that can be arranged in pairs;

odd number- a number that when arranged in pairs has one odd one left over.



### Lesson focus

Look at the wall chart 100-square and point out the pattern of the even numbers is 2, 4, 6, 8, 10. The children are already familiar with this counting sequence. Ask if they can predict the next even number or odd numbers. Write them on the board: 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, - continue at least up to 30. Direct pupils to look carefully at the last digit in each number and say what they notice. Pupils need to generalize that an even number always ends in 0, 2, 4, 6 or 8, while odd numbers always end in 1, 3, 5, 7, or 9. Pupils need to try pairing up items as they move towards generalizing the rule.

Pupils should answer the following questions:

1. Write numbers 41 to 60 and circle all the even numbers.
2. Circle all the odd numbers in  

32	51	80	40	23
37	44	55	90	77

### Question above

1. Circle 42, 44, 46, 48, 50, 52, 54, 56, 58, 60
2. Circle 51, 23, 3, 55, 77

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises given in this lesson. Spot check - ask at any time when using numbers "Is this an odd or even number? How do you know?" Children who do not focus on the right hand digit need to count out, write the number and physically pair the items. It is a good idea if you ask the pupils to underline the right hand digit to make sure they are focusing on the right one. Pupils should be able to identify even numbers and differentiate them from odd numbers.

### Extension activity

Ask pupils to write numbers 50 to 99 and circle all the even numbers in the range. Ask pupils "Do you know that other numbers not circled are odd numbers?" Ask them to look at the right hand digits of numbers not circled. What are they?

### Homework activity

Pupils should go on an even and odd numbers hunt and make a record of wherever they see the even numbers and the odd numbers around the school.

**Objectives**

By the end of this unit, pupils should be able to:

- Identify a half and a quarter using concrete objects
- Identify a half and a quarter using shapes
- Recognize and use the symbols  $\frac{1}{2}$  and  $\frac{1}{4}$
- Understand fractions as numbers between whole numbers
- Understand fractions as part of a whole
- Construct the whole from a given part.

**Suggested Resources**

- Scissors
- Scrap paper
- Pupil's Book
- Small items like buttons oranges apples
- Labels half and one quarter.

**Key word definitions**

*fraction*: an exact part of something

*half*: one of two equal parts of something

*symbol*: a sign that has a particular meaning

*whole*: complete, not broken into pieces

*quarter*: one of four equal parts of something

**Common errors pupils make**

- Prior to learning about fractions, and sometimes while being taught fractions pupils construct many misconceptions. Their knowledge of numbers so far has been limited to whole numbers and therefore they do not conceptualise numbers between numbers. They know an object could be broken into parts but then each part becomes a whole. Pupils re-unitise and create whole numbers again. A biscuit is broken into half but children now see the biscuit as two whole parts of biscuits. The one biscuit has disappeared to be replaced by two different sized biscuits. The concept of half the biscuit is lost. Much early fractional teaching does not challenge pupils' understanding of parts of a whole. Exercises in this unit will endeavour to challenge pupils' fractional thinking.

- The symbol  $\frac{1}{2}$  is often misunderstood, and often the misconception about the symbol is taught. It is important for the teacher to fully understand the meaning of the numerator and denominator and take pupils beyond unit fractions as the opportunities arise. If pupils are only exposed to unit fractions they come to believe that the denominator 2 means two equal parts, which is correct, but they also believe that the numerator 1 refers to 1 whole which is incorrect.

Teachers who explain the symbol to pupils as 1 whole divided into 2 parts are creating the misconception, likewise 1 whole divided into 4 parts for  $\frac{1}{4}$ . The numerator refers to the number of parts selected. So you have  $\frac{1}{2}, \frac{2}{2}$  etc.

and  $\frac{1}{4}, \frac{2}{4}, \frac{3}{4}, \frac{4}{4}$

Exercises in this unit will avoid this misconception.

- Pupils will even struggle with the idea of which is larger,  $\frac{1}{2}$  or  $\frac{1}{4}$ . Pupils who have not yet grasped the idea of a whole being broken into parts of the whole and re-unitise into 2 bits and 4 bits will see 4 as larger than 2. They are still thinking in whole numbers where 4 is larger than 2. Some pupils may also see  $\frac{1}{2}$  as a variable that is sometimes larger and sometimes smaller than  $\frac{1}{4}$ . Pupils who have learnt  $\frac{1}{2}$  of 4 is 2 and  $\frac{1}{2}$  of 10 is 5 see  $\frac{1}{2}$  changing, sometimes it is 2 and it is sometimes 5. So sometimes  $\frac{1}{4}$  is 1 and sometimes  $\frac{1}{4}$  is 5. So therefore is sometimes a quarter a quarter is larger than  $\frac{1}{2}$  and sometimes  $\frac{1}{2}$  is larger than  $\frac{1}{4}$ . It is therefore important to understand a fraction as a number to give a result.



## Evaluation guide

Pupils to:

1. Recognize a half and a quarter as fractions. They should be able to understand their symbols and use them appropriately.
2. Cut a given object and shape into given parts and label them appropriately.
3. Fold shapes into halves and quarters, colour a half or a quarter and give examples of how things can be shared into  $\frac{1}{2}$  and  $\frac{1}{4}$ .

## Lesson 1

*Pupil's Book page 32; Workbook page 22*



### Preparation

You will need to have:

- Pupil's Book
- Workbook
- A strip of paper (about 50cm by 10cm)
- Scissors
- Scrap paper
- Oranges (brought by pupils)



### Starter activity

Hold up an orange and tell the pupils that you are going to cut it into two equal parts to share between two of the pupils. Slowly run the knife through the orange along its half and cut. Ask the pupils whether it was a 'fair' cut. Discuss with pupils how they could check to see whether it is fair. Tell them that each part is a half ( $\frac{1}{2}$ ).



### Lesson focus

Develop the idea of halving, bringing pupils to the cutting or folding of a paper in a shape to create equal parts. Ask if they could think of another way you could have made sure the cut would be fair, so that each part was the same size or length.

Record on both half the symbol  $\frac{1}{2}$  and the word 'half'. Introduce the word denominator and discuss why it is 2. The denominator gives the number of equal parts that one whole is divided into. Show on the board  $\frac{1}{2} + \frac{1}{2} = \frac{2}{2} = 1$ . Introduce the word numerator and explain that the numerator tells you how many of the parts you have.

Ask pupils to cut their own oranges which the teacher had asked them to bring to school a day before. Watch as pupils cut into halves and guide them where there is need.



### Answers

#### Worksheet 12

1. Draw a line to cut the shape into two equal parts and colour one part with green crayon.
2.  $\frac{1}{2}$  (a half)

### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the Pupil's. Pupils should be able to find half of a regular shape like a rectangle, square or circle by folding. They should be able to use the symbols  $\frac{1}{2}$ .

### Extension activity

Provide children with cut outs of a hexagon, an equilateral triangle, an isosceles triangle and ask them to find how many different ways they can fold them into halves.

### Homework activity

Pupils to answer questions 1 and 2 of Worksheet 12 on page 22 in the WB.

## Lesson 2

Pupil's Book page 33



### Preparation

You will need to have:

- Pupil's Book
- A strip of paper (about 50cm by 10cm)
- Scissors
- Scrap paper
- Orange



### Starter activity

Hold up an orange and tell the pupils that you are going to cut it into two equal parts. Slowly run the knife through the orange along its half and cut. Ask the pupils whether it was a 'fair' cut. Discuss with pupils how they could check to see whether it is fair. Tell them that each part is a half ( $\frac{1}{2}$ ). Now further cut each half into two to have four parts. Ask how many parts you now have from a whole orange. Let them know that each part is called a quarter ( $\frac{1}{4}$ ).



### Lesson focus

Develop the idea of finding a quarter, asking pupils to cut or fold paper into 2 equal parts. Now cut or fold each half into two equal parts. How many parts do you now have? You now have four equal parts. Record on each of the four parts one quarter with symbol  $\frac{1}{4}$ . Just like the explanation on half, tell the pupils why the denominator of a quarter is 4. The denominator gives the number of equal parts that one whole is divided into. Show on the board  $\frac{1}{4} + \frac{1}{4} + \frac{1}{4} + \frac{1}{4} = \frac{4}{4} = 1$ . Introduce the word numerator and explain that the numerator tells you how many of the parts you have.

Show that the numerator is 1 and the denominator is 4. Pupils should do exercises 1 and 2 and the puzzle on page 33 in the Pupil's Book (PB).



## Answers

### Exercise 1

1. Colour one part of the apple cut into two.  
Colour one part of the paper folded in two
2. Colour 2 of the 8 flowers.  
Colour 2 parts of the ruler divided into 4 parts

### Exercise 2

1. Colour 1 of the 2 rectangles  
Colour 1 of the 2 triangles
2. Colour 1 of the quadrants

### Puzzle

4 parts

#### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the PB. Pupils should be able to find half and quarter of a regular shape like rectangle, square and circle by folding. They should be able to use the symbols  $\frac{1}{2}$  and  $\frac{1}{4}$ .

#### Extension activity

Provide children with cut outs of a hexagon, an equilateral triangle, an isosceles triangle and ask them to find how many different ways they can fold them into halves.

#### Homework activity

Ask pupils to further divide each of the four parts into two equal parts. How many parts do you now have and what symbol will you write for each part?

## Lesson 3

Pupil's Book page 32; Workbook page 23



### Preparation

You will need to have:

- Pupil's Book
- Workbook
- Small items for sharing into half - buttons, shells, seeds



### Starter activity

Select a group of up to 20 pupils, making sure you have an even number. Explain to the pupils you want to make the group into two groups of the same number of pupils. Ask them how you could do this.

The most likely reply is to move them one at a time into each group: one for group A and one for group B until all the pupils have been allocated to a group.



### Lesson focus

Develop the idea of dividing into two equal sets as halving a group of objects. Ask pupils to take a group of 10 children and ask "If I divide them into two equal groups how many will there be in each group?" Some children may need to count and divide physically while some will say the answer straight away. Repeat the process several times with different numbers to reinforce the idea of halving.



## Answers

### Worksheet 12

3.  $2\frac{1}{2}$  oranges

#### Assessment

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the WB. Pupils should be able to find half of a set of objects by sharing. They should be able to understand that finding half of a set is the same as making two equal sets.

**Extension activity**

Extend the pupil's thinking by asking "If I had 7 oranges to share between two friends, how many oranges would they have each? Obviously you cannot give each child the same number of whole oranges. Ask the pupils "How can we solve this problem so that the friends have exactly the same amount of orange each?" You are trying to lead the pupils into the idea that the remaining odd orange can be cut into two equal parts so that each now have  $3\frac{1}{2}$  oranges.

**Homework activity**

Ask pupils to share 25 oranges among two friends. How many will each of them take?

Pupils should answer question 3 of Worksheet 12 on page 23 in the WB.

**Preparation**

You will need to have:

- Pupil's Book
- Workbook
- Small items for sharing into quarters - buttons, shells, seeds

**Starter activity**

Select a group of up to 20 pupils, making sure you have an even number. Explain to the pupils you want to make the group into four equal groups of the same number of pupils. Ask them how you could do this. The most likely reply is to move them one at a time into each group: one for group A and one for group B, one for group C and one for group D until all the pupils have been allocated to a group.

**Lesson focus**

Give the pupils practice in sharing into 4 equal sets by giving them items to share. Initially give them sets that are multiples of 4 so that the sharing will always result in a whole number.

Now introduce sharing of say 13 oranges. Ask: "How can you share this spare orange?" Pupils need to come to the idea that the extra orange could be cut into four equal parts or quarters and shared so that each person have  $3\frac{1}{4}$  oranges. Extend the idea to sharing of 14 oranges and explain how the set of 2 left over could be shared i.e. two pupils share one orange to have  $3\frac{1}{2}$  each.

**Answers****Worksheet 12**

4. Pupils circle 4 pencils, 1 books, 2 cups.
5. One quarter, or  $\frac{1}{4}$ .

**Assessment**

Observe and listen to the pupils during the lesson. Look at their answers to the exercises in the WB. Observe and listen to discussion during teaching. Pupils should be able to find a quarter of a set of objects by sharing. They should be able to understand that finding a quarter of a set is the same as making four equal sets.

**Extension activity**

Extend the pupil's thinking by asking "If I had 15 oranges to share between four friends, how many oranges would they have each? Obviously you cannot give each child the same number of whole oranges. Ask the pupils "How can we solve this problem so that the friends have exactly the same amount of orange each?"

**Homework activity**

Ask pupils to share 25 oranges among two friends. How many will each of them take?

Pupils should answer questions 4 and 5 of Worksheet 12 on page 23 in the WB.



### Lesson 1 *Pupil's Book page 34; Learning half and quarter (1)*

#### Preparation

You will need to have:

- Two slices of bread
- Knife
- Two plates
- Pupil's Book

#### Starter activity

To start this lesson, allow the pupils to wash their hands very well as they are about handling food. Tell them that this is good for their health. This lesson is a practical lesson so each child should hold a slice of bread which they are to follow instruction to learn more about half and a quarter as a follow up to what they already learnt in the previous unit. Pupils should carefully run the knife along the middle of the slice of bread with them. Guide them to recall that each part is called a half. The symbol is  $\frac{1}{2}$ .

Discuss with the pupils how they could check that the cut was fair. That is, put one part on the other to be sure they measure same. Pupils should further cut each half into two equal parts. You now have four parts so that each part is called a quarter. The symbol is  $\frac{1}{4}$ .

#### Lesson focus

Read together with the pupils the steps to follow in building the idea of a half and a quarter.

Pupils are to follow the instruction of the teacher to compliment the idea of halving and quarter. They cut the slice of bread into two equal parts, call each part a half. Further cut each of the two parts into two equal parts to now have four equal parts. Each part of the four parts is called a quarter.

Ask pupils whether there any other way they could have cut the slice of bread to have four parts.

Pupils should show their cut outs to the teacher to assess the correctness. The teacher corrects where necessary.

#### Assessment

Observe pupils as they work, asking questions where necessary. If pupils have followed instructions carefully and cut accurately they should have two equal parts first and then four parts next. Pupils should be able to understand that each part of two equal parts is a half written  $\frac{1}{2}$ . They should also be able to know that each part of the four equal parts is  $\frac{1}{4}$ .

#### Extension activity

Get two strips of cardboard measuring 50cm by 10cm. Ask pupils to divide one into two equal part and write a half on each part in symbol and in word. Cut the other one into four and write a quarter on each part. Show your work to the teacher to correct where necessary.

**Lesson 2** *Pupil's Book page 35; Learning half and quarter (2)*



### Preparation

You will need to have:

- Two cardboard of sizes 10cm by 8cm
- Strips of cardboard 50cm x 10cm, 2 for each pupil
- Scissors
- Pupil's Book



### Starter activity

To start this lesson, hold up a piece of cardboard 10cm by 8cm and ask pupils to follow instructions read together earlier. This lesson is a practical lesson so each child should hold their own cardboard. Tell the pupils to fold the first piece of cardboard into two equal parts. Show the pupils that the edges of the cardboard have to meet. Ask pupils to write "half" and its symbol  $\frac{1}{2}$  on each part.

Discuss with the pupils that they can check that their fold was correct by putting one side against the other to measure if they are the same. Pupils should then fold the second piece of cardboard into two equal parts as before. They should fold the two equal parts into another two equal parts. They will now have four equal parts. Each of the four parts is called a "quarter". The symbol is  $\frac{1}{4}$ . Write a quarter and its symbol on each part.



### Lesson focus

Develop the idea of half and quarter by folding to create two equal parts and four equal parts respectively. Instruct pupils to fold their cardboard into two equal parts and call each part a half. Take the second cardboard, fold it into two equal parts and further fold each of the two parts into two equal parts to now have four equal parts. Write a quarter on each part and its symbol.

Ask pupils whether there is any other way they could have folded the cardboard to have four parts. Pupils should show their results to their teacher for checking. The teacher corrects where necessary.

### Assessment

Observe pupils as they work, asking questions where necessary. If pupils have followed instructions carefully and fold accurately they should have two equal parts first and then four parts next. Pupils should be able to understand that each part of two equal parts is a half written  $\frac{1}{2}$ . They should also be able to know that each part of the four equal parts is  $\frac{1}{4}$ .

### Support activity

Give pupils two strips of cardboard measuring 50cm by 10cm. Ask pupils to fold one into two equal parts and write a half on each part in symbol and in word. Fold the other one into four and write a quarter on each part in symbol and in word. Teacher to correct where necessary.

## Lesson 1

*Pupil's Book page 36***Objectives**

This assessment is an assessment of work covered in units one, two, three, four, five, up to twelve. This assessment is designed to assess the pupils' mathematical understanding and not their reading ability. It is also important that it is completed by individuals and not with the support of others as this would uncover any difficulties a pupil may be having with particular concepts.

It is therefore best carried out with small groups

of pupils under the guidance of the teacher who should read each question carefully to the pupils and give them time to complete the question before moving on to the next question.

A more able group within the class may be able to complete the assessment without the need for the teacher to read the questions. However observing pupils while they are completing the assessment provides further information about these pupils.

**Preparation**

You will need to have:

- Pupil's Book

**Guidelines**

On completion of the assessment, teachers should look for both correct answers and mistakes made by individuals. They should also be checking to see if there is a pattern in terms of any particular question causing a significant number of pupils difficulties. By analysing the results of an assessment, teachers can identify weakness in individuals and so provide the necessary support and also identify strengths of individuals and provide them with more challenging activities. They will also be able to identify any weaknesses in their teaching programme and make adjustments as necessary.

For this assessment, pupils should be able to identify, read and write numbers up to ninety-nine. They should be able to look at any two-digit number and say how many groups of ten and units could be made from the number. If they are still reliant on making the groups and then counting the groups further work is required making

specific links to the way numbers are written and expanding numbers into tens and units. Pupils should be able to count and write forwards and backwards in 1s, 2s, 5s and 10s. They should also be able to read and write numbers from zero to ninety-nine in words.

**Lesson focus**

Pupils should be able to read, write and order numbers between one and ninety-nine. They should answer questions 1 to 6 of Term 1 Assessment.

**Answers to Assessment**

1. Reading 1 to 9 aloud
2. One, two, three, four, five, six, seven, eight, nine.
3. 4, 5, 6
4. 1, 2, 3
5. 87, 17, 32, 50, 6
6. 87    8 tens and 7 units  
17    1 ten and 7 units  
32    3 tens and 2 units  
50    5 tens and 0 units  
6    0 tens and 6 units

### Objectives

This assessment is an assessment of work covered in units one, two, three, four, five, up to twelve. This assessment is designed to assess the pupils' mathematical understanding and not their reading ability. It is also important that it is completed by individuals and not with the support of others as this would uncover any difficulties a pupil may be having with particular concepts.

It is therefore best carried out with small groups of pupils under the guidance of the teacher who should read each question carefully to the pupils and give them time to complete the question before moving on to the next question.

A more able group within the class may be able to complete the assessment without the need for the teacher to read the questions. However observing pupils while they are completing the assessment provides further information about these pupils.



### Guidelines

On completion of the assessment, teachers should look for both correct answers and mistakes made by individuals. They should also be checking to see if there is a pattern in terms of any particular question causing a significant number of pupils difficulties. An analysis of the results of an assessment enables teachers to identify any weaknesses so that they can provide more challenging activities. Teachers are also able to identify any weakness in their teaching programme make adjustments as necessary.



### Lesson focus

Pupils should be able to find missing numbers between one and ninety-nine. They should answer questions 7 and 8 of Term 1 Assessment.



### Answers

7. 23, 24, 25, 27, 28  
36, 37, 38, 39, 41, 42  
60, 61, 63, 64, 65, 66  
71, 72, 74, 75, 77
8. 98, 97, 94, 93  
44, 41, 40, 39  
69, 68, 66, 65, 63  
21, 19, 18, 17, 16, 15

### Assessment

Pupils should be able to complete all the Questions without assistance. Take note of where pupils struggle or ask for help, and revise those topics as needed.