



"Quête pour l'excellence"
"Yumi eim blo kasem ekselens"



Government of Vanuatu

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Central School

Home School Package

Year : 4













Ministry of Education and Training / Ministère de l'Éducation et de la Formation
Republic of Vanuatu / République du Vanuatu





HOME SCHOOL PACKAGE CONTENT






Mathematics year 4





| Lesson No # | Topics | Pages |
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| 1 | Number Patterns | 1-3 |
| 2 | Using Millimetres | 4-7 |
| 3 | Expanded Notation | 8-11 |
| 4 | Triangles | 12-16 |
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|  <p>Teacher</p> | <p>Name : Mr Daniel & Mrs Nampass Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Number patterns Lesson number : 1</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to : Generates ,describes and records number patterns using a variety of strategies and completes simple number sentences by calculating missing values.</p> |
|  <p>Introduction</p> | <p>A number pattern is a series of number that keeps increasing or decreasing from the starting to the ending of the pattern using a particular rule .This can be continuous addition, multiplication, subtraction or division of a number in order to get the next number.</p> <p>For example : 4, 8, 12, 16, 20, ____ .</p> <p>The simple rule here is keep <u>adding 4</u> to each number as you go up the pattern to get the missing number .</p> |

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|  | <p><u>Catch phrase for the lesson</u> Number patterns have a rule to follow.</p> |
|  Learners notes | <p><u>Summary</u></p> <p>Number patterns can increase or decrease from the starting to the ending of the pattern depending on a particular rule [add/subtract/multiply/ divide]</p> |
|  Visual aids | |
|  Exercises | <p>Do exercise 1 and 2</p> <div data-bbox="488 1041 1390 1860"> <p>1:18 Number patterns</p> <p>1 Write the tenth term in each number pattern.</p> <p>a 1·5, 2·5, 3·5, 4·5, ... <input type="text"/> b 166, 176, 186, 196, ... <input type="text"/></p> <p>c 7, 9, 11, 13, ... <input type="text"/> d 32, 30, 28, 26, ... <input type="text"/></p> <p>e 0·2, 0·4, 0·6, 0·8, ... <input type="text"/> f 14, 21, 28, 35, ... <input type="text"/></p> <p>2 Write the first five terms in each number pattern.</p> <p>a Start at 12 and count by sixes. <input type="text"/></p> <p>b Start at 92 and count backwards by tens. <input type="text"/></p> <p>c Start at 18 and count by nines. <input type="text"/></p> <p>d Start at 16 and count by eights. <input type="text"/></p> </div> <div data-bbox="1170 1241 1390 1818"> <p>You may need to write the pattern.</p>  </div> |

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|  <p>Assignment</p> | Nil |
|  <p>Assessment</p> | Diagnostic test |
|  <p>References</p> | <p>Nsp4 pg 18</p>  |

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|  <p>Teacher</p> | <p>Name : Mr Daniel & Mrs Diane Nampass</p> <p>Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Using milliliters</p> <p>Lesson number : 2</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to :</p> <p>Estimates,measures, compare and records volumes and capacities using milliliters and Litres.</p> |
|  <p>Introduction</p> | <p>Ask students these questions :</p> <p>i] what does millilitre mean ?</p> <p>ii]what is millilitre used for ?</p> <p>Discuss the answers of these two questions with the students.</p> <p>Let them know that ‘ millilitre is a unit of capacity [or volume] equal to one thousandth of a litre.’ $1000\text{ml} = 1\text{L}$</p> <p>Millilitres and litres are used for the measurements of liquids.</p> <p>For example : water in a bucket,petrol in a drum,tea in a cup..</p> <p>-Ask students to name some products in the shop that are measured in millilitres and litres .For example : i]cooking oil</p> |

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| | ii] coca cola drink in a can. |
|  | <p><u>Catch phrase for the lesson</u></p> <p>There are 1000 millilitres in one Litre. 1000 ml = 1L</p> |
|  <p>Learners notes</p> | <p><u>Summary</u></p> <p>millilitre is a unit of capacity [or volume] equal to one thousandth of a litre. 1000ml= 1L</p> <p>Millilitre and litre are units used for the measurements of liquids.</p> <p>Short for milliliters = mL Short for Litre = L</p> |
|  <p>Visual aids</p> | |
|  <p>Exercises</p> | <p>Do activities 1, 2 and 3</p> |

4:16 Using millilitres



- Use a medicine glass to measure the capacity of:
 - a a teaspoon b a dessertspoon c an egg-cup
 - d an eye-dropper e a tablespoon f a bottle lid
- Arrange the above containers in order, from smallest to largest.
- Pour an estimated 10 mL of water into different containers.
- Use the medicine glass to check the estimates.
- Complete the table and discuss any difficulties.

Is it difficult to estimate with big bottles?



| Container | Estimated 10 mL | Measurement | Description of estimate | Difference |
|--------------|-----------------|-------------|-------------------------|------------|
| egg cup | 10 mL | 15 mL | Too big | 5 mL |
| tall bottle | 10 mL | | | |
| thin bottle | 10 mL | | | |
| short bottle | 10 mL | | | |

1 Would we use litres or millilitres to measure:

- a a small carton of cream? ☐ b a tub full of water? ☐ c a spoonful of medicine? ☐
 d a cup of coffee? ☐ e a drum of oil? ☐ f a can of drink? ☐

2 How many millilitres are there in:

- a 2 L? b 7 L? c 3 L? d 5 L?
 e 8 L? f 4 L? g $6\frac{1}{2}$ L? h $9\frac{1}{2}$ L?

3 How many litres are there in:

- a 1000 mL? b 7000 mL? c 5000 mL? d 3000 mL?
 e 6000 mL? f 4000 mL? g 2000 mL? h 8000 mL?



Assignment



Assessment

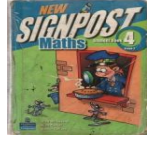
Nil






Diagnostic test






References

Nsp 4 pg 129



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|---|---|
|  <p>Teacher</p> | <p>Name : Mr Daniel and Mrs Nampass Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Expanded notation Lesson number : 3</p> |
|  <p>Learning outcomes</p> | <p>-By the end of this lesson students should be able to : count, order, read and record numbers up to four digits.</p> |
|  <p>Introduction</p> | <p>Have students do this addition.</p> $2000 + 300 + 40 + 5 =$ <p>Go through answer with the students.</p> $2000 + 300 + 40 + 5 = 2345$ <p>-Tell students , 'if we break 2345 up according to the values of each digit in the number , it will be' $2000 + 300 + 40 + 5$</p> $2345 = 2000 + 300 + 40 + 5$ <p>-Tell students that breaking the number down according to the values of each digit is called '<u>Expanded Notation</u>'</p> <p>- Let them have a try.</p> |

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| | <p>Write this number in expanded notation.</p> $4132 = \underline{\quad} + \underline{\quad} + \underline{\quad} + \underline{\quad}$ <p>- Go through the answer with students.</p> $4132 = 4000 + 100 + 30 + 2$ |
|  | <p><u>Catch phrase for the lesson</u></p> <p>Every digit in a number has a value.</p> |
|  <p>Learners notes</p> | <p><u>Summary</u></p> <p>Numbers are made up of digits. Every digit in a number has a value.</p> <p>Breaking a number down according to the values of each digit is called '<u>Expanded Notation</u>'</p> <p>Example :</p> <p>write 1432 in Expanded notation.</p> $1423 = 1000 + 400 + 30 + 2$ |
|  <p>Visual aids</p> | |



Exercises

Do activities 1-5

1:20 Expanded notation

1 Write the numeral for:

a $2000 + 400 + 30 + 5$

b $1000 + 600 + 80 + 2$

c $4000 + 300 + 40 + 9$

d $6000 + 100 + 20 + 7$

2 Write these in expanded notation.

a 4692

b 2375

c 5386

d 3801

3 Write these numbers in the correct column to show place value.

| | Thous | Hund | Tens | Units |
|--------|----------------------|----------------------|----------------------|----------------------|
| a 9693 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| b 5726 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| c 4035 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |
| d 2607 | <input type="text"/> | <input type="text"/> | <input type="text"/> | <input type="text"/> |

Zeros are used to keep digits in the correct columns.



4 Write the place value of each coloured digit.

a 3216

b 5497

c 6543

d 1947

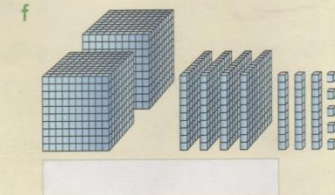
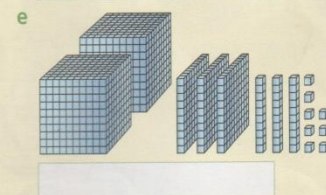
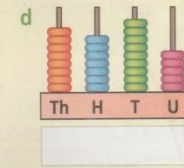
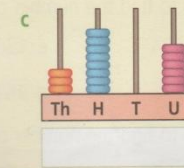
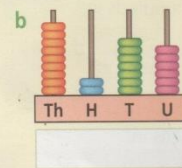
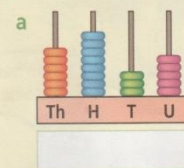
e 8269

f 4920

g 2758

h 9306

5 Write the number shown on each abacus or set of Base 10 blocks.



Assignment



Assessment

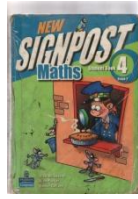
Nil






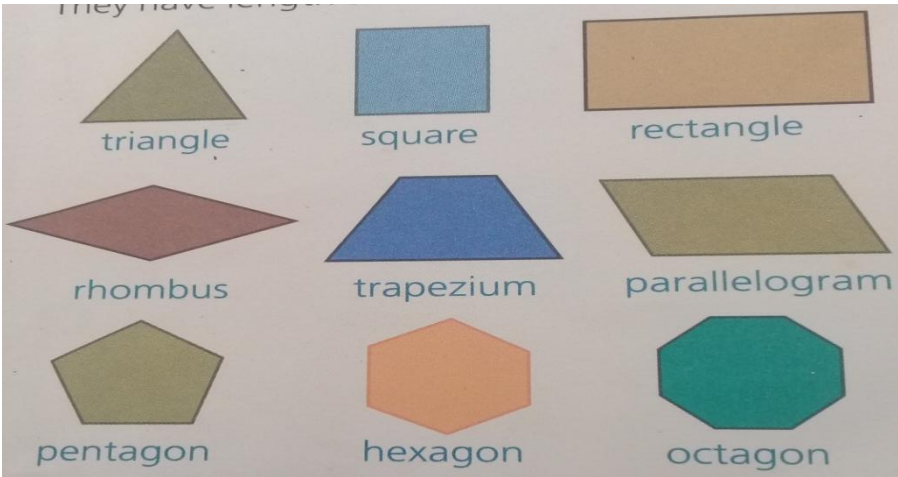
Diagnostic Test



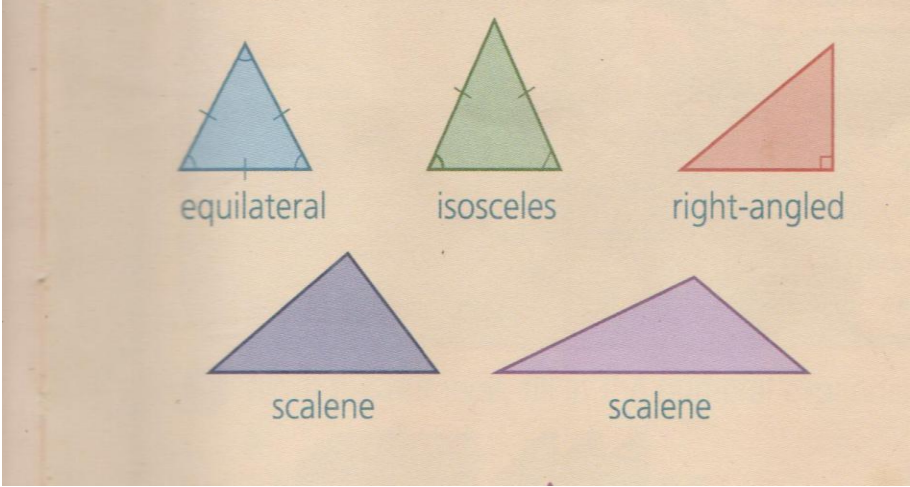


References

Nsp 4 pg 20



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|  <p>Teacher</p> | <p>Name : Mr Daniel & Mrs Nampass Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Triangles Lesson number : 4</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to : manipulate,compare,sketch and name 2 dimensional shapes and describe their features.</p> |
|  <p>Introduction</p> | <p>Have students name some 2 dimensional shapes such as : triangle,square,rectangle,diamond,pentagon, parallelogram, octagon, hexagon, tapezium and circle.</p>  <p>-ask them to group the shapes according to the physical features and let them explain the reasons for their groupings.</p> |

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| | <p>- Ask students these questions. What do we call a shape with ; i] 3sides ? _____ ii] 4sides ? _____ iii] 5 sides ? _____ iv] 6 sides ? _____ v] 8 sides ? _____</p> <p>-Go through answers on the board with students i] 3 sides –triangles ii] 4sides-Quadrilaterals iii] 5 sides –Pentagon iv] 6 sides – Hexagon v] 8 sides –Octagon</p> <p>Let students know that for this lesson we are going to look at the features of a triangles.</p> |
|  | <p><u>Catch phrase for the lesson</u> A triangle is a polygon with three sides and three angles.</p> |
|  Learners notes | <p><u>Summary</u> A triangle is a polygon. All triangles have three sides and three angles.</p>  |



Visual aids



Exercises



Act 1 : Fill in the spaces to complete the table

| Name of Triangle | Number of sides | Number of corners | Number of angles |
|----------------------|-----------------|-------------------|------------------|
| Equilateral triangle | 3 | 3 | 3 |
| Isosceles triangle | | | |
| Right angle triangle | | | |
| Scalene triangle | | | |

Act : 2

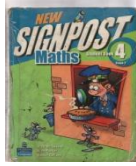
Use a ruler to construct the following triangles in the spaces given.






Right- angled
triangle




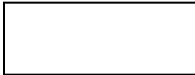


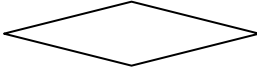


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| | Equilateral triangle | |
| | Isosceles triangle | |
|  Assignment | Nil | |
|  Assessment | Diagnostic Test | |
| | Nsp 4 pg 105 | |









References

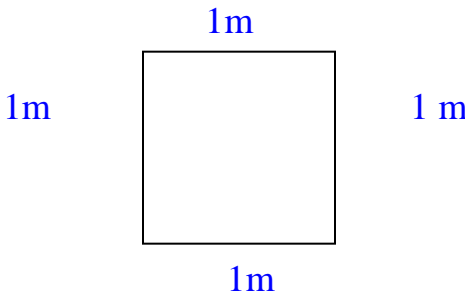


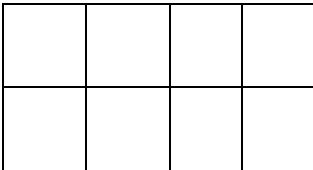




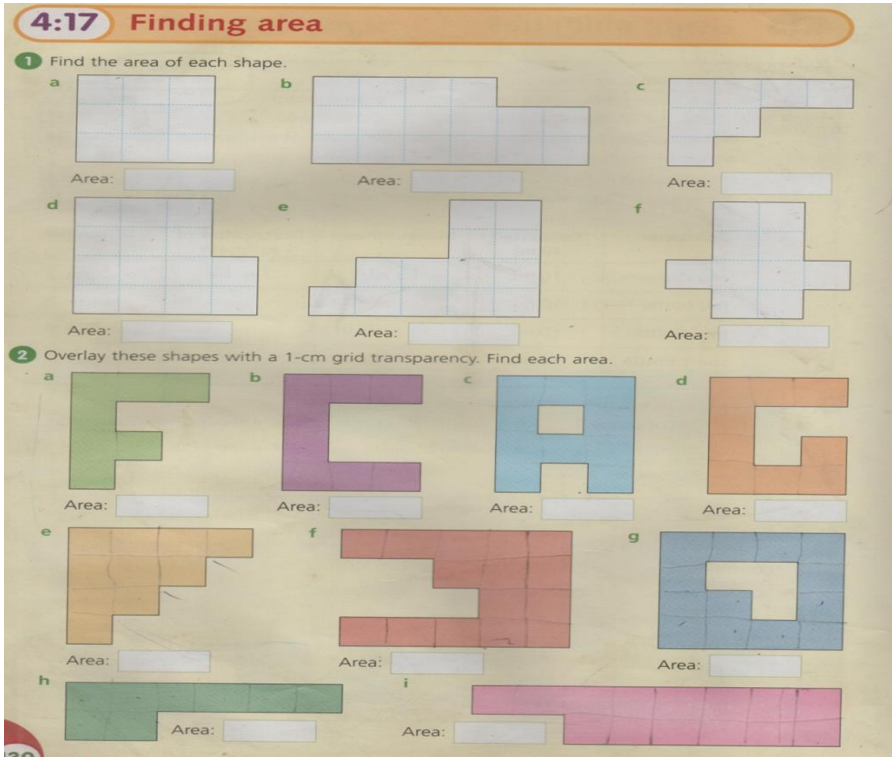



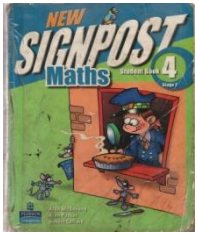
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|  <p>Teacher</p> | <p>Name : Mr Daniel & Mrs Nampass Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Quadrilaterals Lesson number : 5</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to :</p> <p>Manipulate,compare, sketch and name two-dimensional shapes and describes their features.</p> |
|  <p>Introduction</p> | <p>Have students name some 2 dimensional shapes such as : triangle,square,rectangle,diamond,pentagon, parallelogram, octagon, hexagon, tapezium and circle.</p> <p>-ask them to group the shapes according to the physical features and let them explain the reasons for their groupings. - Ask students these questions ; What do we call a shape with i] 3sides ?_____ ii] 4sides ?_____ iii] 5 sides ?_____ iv]6 sides ?_____ v]8 sides ?_____ -Go through answers on the board with students i]3 sides –triangles ii]4sides-Quadrilaterals iii]5 sides –Pentagon iv]6 sides – Hexagon v] 8 sides –Octagon</p> <p>Let students know that for this lesson we are going to look at the features of a quadrilateral.</p> |






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|  | <p><u>Catch phrase for the lesson</u> A quadrilateral is a plane shape with 4 straight sides.</p> |
|  <p>Learners notes</p> | <p><u>Summary</u> All quadrilaterals have -4 straight sides. -4 angles -1 or 2 parallel sides Squares, Rectangles, Diamonds, Trapeziums and Parallelograms are quadrilaterals.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>Square</p> </div> <div style="text-align: center;">  <p>rectangle</p> </div> <div style="text-align: center;">  <p>trapezium</p> </div> </div> <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>Parallelogram</p> </div> <div style="text-align: center;">  <p>diamond</p> </div> </div> |
|  <p>Visual aids</p> | |
|  <p>Exercises</p> | <p>Activities 1-2</p> |

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| | <div data-bbox="492 205 1360 289" data-label="Section-Header"> <h3>3:19 Quadrilaterals and triangles</h3> </div> <div data-bbox="508 296 1344 537" data-label="Image"> <p>The image shows five quadrilaterals arranged horizontally, each in a light blue box with its name below it: square, rectangle, rhombus, trapezium, and parallelogram.</p> </div> <div data-bbox="492 537 1360 968" data-label="List-Group"> <ol style="list-style-type: none"> 1 <ol style="list-style-type: none"> a What is a quadrilateral? <input type="text"/> b Which of the quadrilaterals above have right angles? <input type="text"/> c Which of these quadrilaterals have only one pair of parallel sides? <input type="text"/> d Which of these quadrilaterals have two pairs of parallel sides? <input type="text"/> e Which of these quadrilaterals have sides that are perpendicular? <input type="text"/> 2 Why are the answers to Questions 1b and 1e the same? <input type="text"/> </div> |
| <div data-bbox="191 1003 253 1115" data-label="Image"> </div> <div data-bbox="180 1115 399 1167" data-label="Text"> <p>Assignment</p> </div> | Nil |
| <div data-bbox="196 1171 315 1247" data-label="Image"> </div> <div data-bbox="180 1253 399 1299" data-label="Text"> <p>Assessment</p> </div> | Diagnostic Test |
| <div data-bbox="233 1356 415 1570" data-label="Image"> </div> <div data-bbox="180 1570 383 1617" data-label="Text"> <p>References</p> </div> | <p>Nsp 4 pg 105</p> <div data-bbox="505 1371 667 1570" data-label="Image"> <p>The image shows the cover of a book titled 'NEW SIGNPOST Maths' for Year 4. It features a cartoon character and the text 'Year 4'.</p> </div> |

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|  <p>Teacher</p> | <p>Name : Mr Daniel & Mrs Nampass Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Finding areas Lesson number : 6</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to : Estimate,measure and record the areas of surfaces in square centimeters and square metres.</p> |
|  <p>Introduction</p> | <p>-Have students define what the word ‘<u>area</u>’ means. -After listening to student’s responses,discuss the definition of the word with them. Area is the size of a surface. -Ask students ; i] how can we find the area of a shape and give them time to answer.Discuss with them and tell them that we do so by using square units. Square centimetres and square metres. Tell them ; - square centimetre is a square with 1cm sides.</p> <div style="text-align: center;">  </div> |

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| | <p>- square metre is a square with 1 metre sides.</p>  <p>A square is shown with its top side labeled '1m', its bottom side labeled '1m', its left side labeled '1m', and its right side labeled '1 m'.</p> |
|  | <p><u>Catch phrase for the lesson</u> Area is the size of a surface and is measured in square units.</p> |
|  <p>Learners notes</p> | <p><u>Summary</u> Area is the size of a surface. Area is measured in square units: Square centimeters - cm^2 Square metres - m^2</p>  <p>A 2x4 grid of squares is shown. To the left of the grid, the text '2cm' is written. To the right of the grid, the text '4cm' is written.</p> <p>Area=8cm^2</p> |
|  <p>Visual aids</p> | |

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|  <p>Exercises</p> | <p>Activity 1-2</p>  |
|  <p>Assignment</p> | <p>Nil</p> |
|  <p>Assessment</p> | <p>Diagnostic test</p> |
|  <p>References</p> | <p>Nsp 4 pg 130</p>  |

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|  <p>Teacher</p> | <p>Name : Mr Daniel & Mrs Nampass Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Place values in decimals Lesson number : 7</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to : Model, compare and represent commonly used fractions and decimals.</p> |
|  <p>Introduction</p> | <p>-Give students two numbers, one whole number and one decimal number and have them say or write down the value of each digits in both numbers. For example : a] 340 b] 0.60</p> <p>-Ask students to state any difference between the two numbers.</p> <p>-After students answers, tell them that 340 is a whole number While 0.60 is not a whole number.It has a decimal point.It is a fraction.</p> <p>Tell students that a decimal point divides a whole number from a fraction.</p> <p>Go through the values of the digits of both numbers with students.</p> <p>A] 340 is a whole number.</p> |

| units | Tens | hundreds |
|-------|------|----------|
| 3 | 4 | 0 |

-Before going through the answer to the next number tell students that today's lesson will be based on place values in decimals.

B] 0.60

| Whole Number | . | FRACTIONS | |
|--------------|---|-----------|------------|
| units | . | Tenths | Hundredths |
| 0 | . | 6 | 0 |

Let students know that :

-digits before the decimal point are whole numbers.

-digits after decimal point are fractions.





-The first place after the decimal point is Tenths. A fraction out of ten.




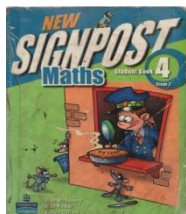
Example : 0.6 is 6 tenths or 6 out of 10 or $\frac{6}{10}$

-Second place after decimal point is hundredths. A fraction out of 100.

Example :

| Whole Number | . | FRACTIONS | |
|--------------|---|-----------|------------|
| units | . | Tenths | Hundredths |
| 0 | . | 2 | 5 |

| | |
|---|--|
| | <p>25 hundredths</p> <p>25 out of 100</p> <p>25/100</p> |
|  | <p><u>Catch phrase for the lesson</u></p> <p>A number with a decimal point is called a decimal number. The decimal point divides a whole number from a fraction.</p> |
|  <p>Learners notes</p> | <p><u>Summary</u></p> <p>A number with a decimal point is a decimal number. A decimal point divides a whole number from a fraction.</p> <ul style="list-style-type: none"> -digits before the decimal point are whole numbers. -digits after decimal point are fractions. -first place after the decimal point has a value of <u>tenths</u>. A fraction out of ten. -Second place after decimal point has a value of hundredths. A fraction out of 100. |
|  <p>Visual aids</p> | |
|  <p>Exercises</p> | <p><u>Activity :</u></p> <p>Fill these decimal numbers into the table of values. An example has been given below.</p> |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---------------|------------|---------------|------------|---|---|---|---|--|---|--|--|--|---|--|--|--|---|--|--|--|---|--|--|--|---|--|--|--|---|--|--|--|---|--|--|
| | <div><div>0.41, 0.35, 0.87, 0.60, 1.39, 2.8 ,1.43</div></div> <table><tr><td>units</td><td>.</td><td><u>Tenths</u></td><td>Hundredths</td></tr><tr><td>0</td><td>.</td><td>4</td><td>1</td></tr><tr><td></td><td>.</td><td></td><td></td></tr><tr><td></td><td>.</td><td></td><td></td></tr><tr><td></td><td>.</td><td></td><td></td></tr><tr><td></td><td>.</td><td></td><td></td></tr><tr><td></td><td>.</td><td></td><td></td></tr><tr><td></td><td>.</td><td></td><td></td></tr><tr><td></td><td>.</td><td></td><td></td></tr></table> | units | . | <u>Tenths</u> | Hundredths | 0 | . | 4 | 1 | | . | | | | . | | | | . | | | | . | | | | . | | | | . | | | | . | | |
| units | . | <u>Tenths</u> | Hundredths | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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|  Assignment | Nil | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  Assessment | Diagnostic test | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|  References | Nsp 4 pg 21  | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |



Teacher

Name : Mr Daniel & Mrs Nampass
Subject : Mathematics



Date



Topic : Place values in decimals
Lesson number : 8



Learning
outcomes

By the end of this lesson students should be able to :
Model, compare and represent commonly used fractions and decimals.



Introduction

-let students know that we are looking at place values in decimals.

-Let students place these decimal numbers into the correct columns in the table of values.

a] 0.23 b] 1.56 c] 0.31

| units | . | tenths | hundredths |
|-------|---|--------|------------|
| | . | | |
| | . | | |
| | . | | |

Correct the examples together.

| Whole Number | . | FRACTIONS | |
|--------------|---|-----------|------------|
| units | . | Tenths | Hundredths |
| 0 | . | 2 | 3 |
| 1 | . | 5 | 6 |
| 0 | . | 3 | 1 |

Remind students about the concepts:

-digits before the decimal point are whole numbers.

-digits after decimal point are fractions.

-The first place after the decimal point is Tenths. A fraction out of ten.

Example : 0.6 is 6 tenths or 6 out of 10 or 6/10

-Second place after decimal point is hundredths. A fraction out of 100.

Example :

| Whole Number | . | FRACTIONS | |
|--------------|---|-----------|------------|
| units | . | Tenths | Hundredths |
| 0 | . | 2 | 5 |

25 hundredths

25 out of 100

25/100



Catch phrase for the lesson

A number with a decimal point is called a decimal number.
The decimal point divides a whole number from a fraction.



Learners notes

Summary

A number with decimal point is a decimal number.
A decimal point divides a whole number from a fraction.
-digits before the decimal point are whole numbers.
-digits after decimal point are fractions.
-first place after the decimal point has a value of tenths. A fraction out of ten.
-Second place after decimal point has a value of hundredths. A fraction out of 100.



Visual aids



Exercises

Activity 1 and 2

1:21 Place value in decimals



This zero is not a place holder and can be left off.

Concepts

| Units | Tenths | Hundredths |
|-------|--------|------------|
| 0 | 6 | 0 |

6 tenths



This zero is a place holder and puts the 6 in the hundredths column.

| Units | Tenths | Hundredths |
|-------|--------|------------|
| 0 | 0 | 6 |

6 hundredths

1 Match the part coloured on each square with the correct label.

0.5

0.02

0.1

0.3

0.05

0.06

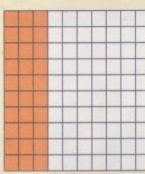
0.9

0.7

0.4

0.09

a



0.5

b



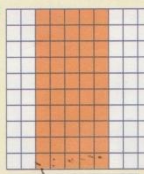
0.2

c



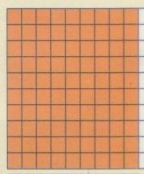
0.1

d



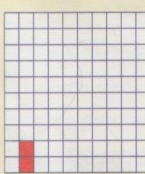
0.5

e



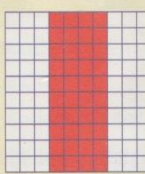
0.9

f



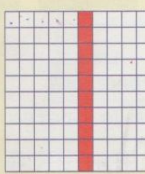
0.02

g



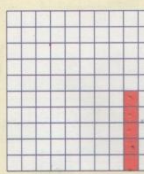
0.4

h



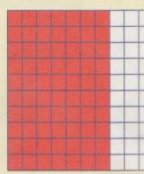
0.1

i



0.05

j



0.7

2 Colour part of each square to match the given decimal.

a



0.07

b



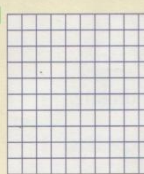
0.2

c



0.03

d



0.08

e



0.8



Assignment



Assessment

Nil






Diagnostic test





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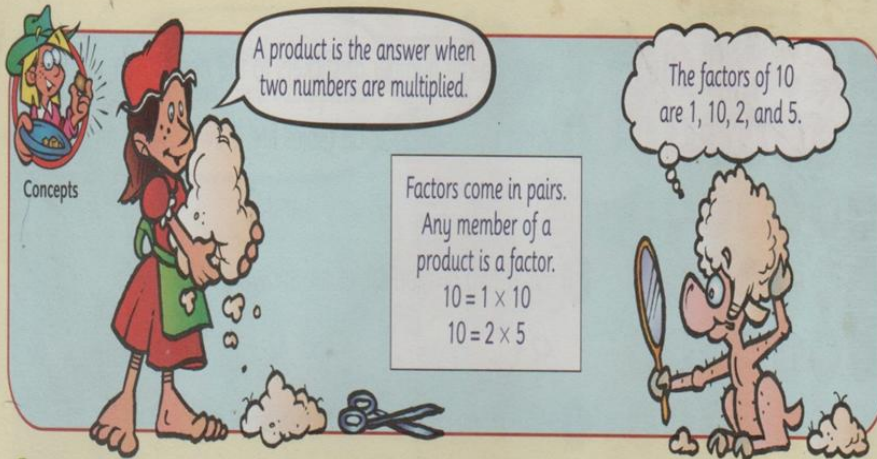
References



| | |
|--|--|
|  <p>Teacher</p> | <p>Name : Mr Daniel & Mrs Nampass Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Factors Lesson number : 9</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to : Uses mental and informal written strategies for multiplication and division.</p> |
|  <p>Introduction</p> | <p>Introduce the lesson by -Putting the word ‘Factor’ on the board and ask students to define what the word means. -After students responses,give them the definition and examples. A factor is any number that divides another number exactly,leaving no remainder.</p> <p>For example : The factors of - 12 are 1, 12, 2, 6,3 and 4 - 10 are 1,10, 2 and 5 Also explain that Factors come in pairs.Any member of a product is a factor. $10 = 1 \times 10$ $10 = 2 \times 5$ A product is the answer you get when two numbers are multiplied.</p> |

| | |
|---|---|
| | The product of 2 and 5 is 10 |
|  | <p><u>Catch phrase for the lesson</u></p> <p>A factor is any number that divides another number exactly, leaving no remainder.</p> |
|  <p>Learners notes</p> | <p><u>Summary</u></p> <p>A factor is any number that divides another number exactly, leaving no remainder.</p> <p>Factors come in pairs. Any member of a product is a factor.</p> <p>$10 = 1 \times 10$</p> <p>$10 = 2 \times 5$</p> <p>A product is the answer you get when two numbers are multiplied.</p> <p><u>Examples</u></p> <p>-The product of 2 and 5 is 10</p> <p>$2 \times 5 = 10$</p> <p>-The product of 4 and 6 is 24</p> <p>$4 \times 6 = 24$</p> |
|  <p>Visual aids</p> | |
|  <p>Exercises</p> | Exercise 1-3 |

2:25 Factors



1 Write a pair of factors for each number.

a 3 b 5 c 7 d 11

2 Write two pairs of factors for each number.

a 6 b 8 c 10 d 15

3 Write the product of each pair of factors.

a 5 and 2 b 3 and 4 c 6 and 3 d 6 and 2
e 3 and 7 f 4 and 5 g 10 and 6 h 4 and 10



Assignment

Nil



Assessment






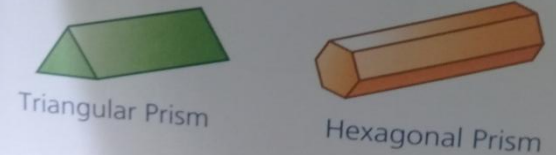
Diagnostic test

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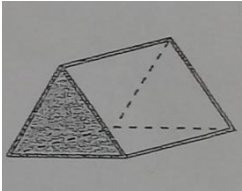
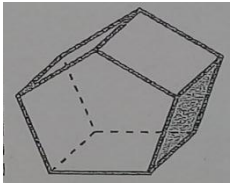
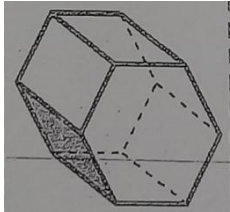
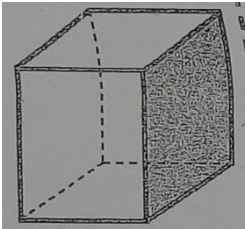
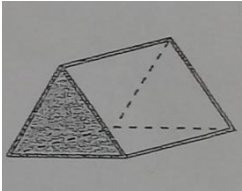
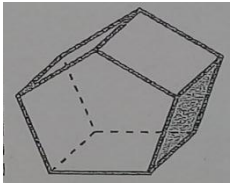
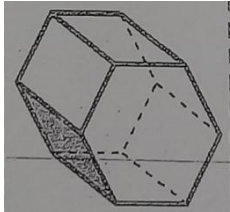
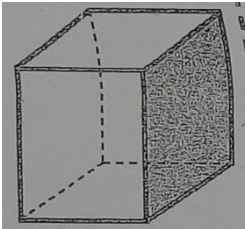
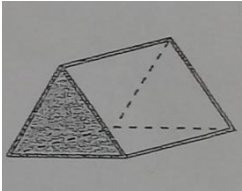
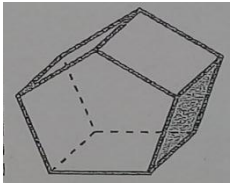
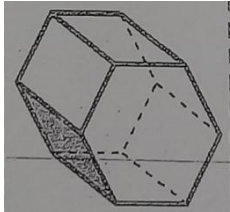
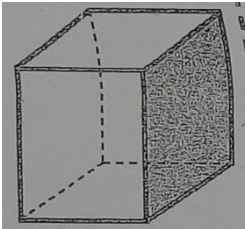


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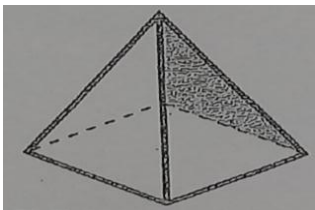
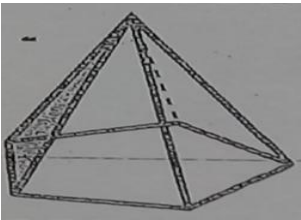
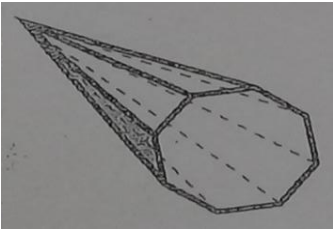
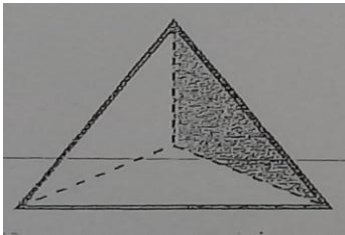


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|  <p>Teacher</p> | <p>Name : Mr Daniel & Mrs Nampass Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : prisms & pyramids Lesson number : 10</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to : Make,compare, describe and name three-dimensional objects including pyramids, and represents them in drawings.</p> |
|  <p>Introduction</p> | <p>-Give students these two words ‘prisms and pyramids’ and tell students that we are looking at the characteristics of prisms and pyramids today. - Ask students to define what prisms and pyramids are. -summerise student’s responses and tell them that : -Prisms and pyramids are solids. -Begin by explaining the features of prism. Prisms are solid shapes with a uniform cross-section apart from the identical ends,all other faces are rectangles.</p> <div data-bbox="597 1518 1166 1692">  <p>Triangular Prism Hexagonal Prism</p> </div> |

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| | <p>Pyramids are solid shapes that ha a polygon for a base and triangles for all other faces.pyramids are named by the shape of their base.</p> <div data-bbox="662 331 1166 604" data-label="Image"> <p>The image shows two 3D pyramids. On the left is a blue square pyramid with a square base and four triangular faces. On the right is a yellow and red pentagonal pyramid with a red pentagonal base and five triangular faces. Below each pyramid is its name: 'Square Pyramid' and 'Pentagonal Pyramid'.</p> </div> <ul style="list-style-type: none"> -Give students some models of solids and have them put the prisms in one place while pyramids in the other. - Go through the properties of prisms and pyramids with them as students check to make sure that their groupings are correct. |
| <p>A cartoon character of a yellow figure with a red cap, holding a baseball bat. The character is standing on a small orange base. There is a watermark 'IMAGE vision' on the character.</p> | <p><u>Catch phrase for the lesson</u> Prisms and pyramids are solids</p> |
| <p>A clipboard with a white sheet of paper and a yellow pencil. The clipboard has a silver clip at the top.</p> <p>Learners notes</p> | <p><u>Summary</u></p> <ul style="list-style-type: none"> -Prisms and pyramids are solids. <p>Prisms and pyramids are named according to the shape of their base.</p> <p>Prisms</p> <ul style="list-style-type: none"> -have a uniform cross-section. -have two identical ends [same shape and size.they ars called bases] -all other faces are rectangles. -prism are named by the shape at the two identical ends. <p>Pyramids</p> <ul style="list-style-type: none"> -has a polygon for a base[one base]. - all other faces are triangles. -.pyramids are named by the shape of their base. |

|  Visual aids | | | | | | | | | | | |
|--|---|--------|--|--|-----------------|---|------------------|---|-------------------|---|------------------|
|  Exercises | <p><u>Activity</u></p> <p>1. Match each prism with the correct name.</p> <table> <tr> <th>Prisms</th><td></td></tr> <tr> <td></td><td>Hexagonal prism</td></tr> <tr> <td></td><td>Triangular prism</td></tr> <tr> <td></td><td>Rectangular prism</td></tr> <tr> <td></td><td>Pentagonal prism</td></tr> </table> | Prisms | |  | Hexagonal prism |  | Triangular prism |  | Rectangular prism |  | Pentagonal prism |
| Prisms | | | | | | | | | | | |
|  | Hexagonal prism | | | | | | | | | | |
|  | Triangular prism | | | | | | | | | | |
|  | Rectangular prism | | | | | | | | | | |
|  | Pentagonal prism | | | | | | | | | | |




2.Match each pyramid with the correct name.








| pyramids | |
|---|--------------------|
|  | Pentagonal pyramid |
|  | Square pyramid |
|  | Triangular pyramid |
|  | Octagonal pyramid |

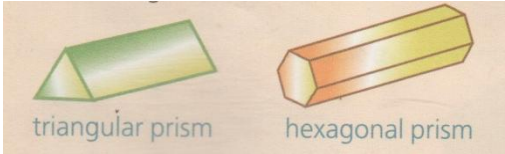
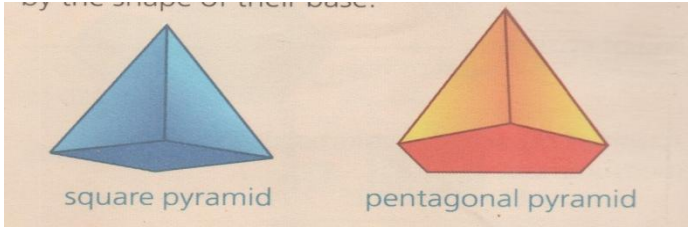




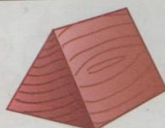




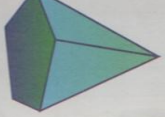
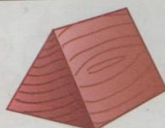




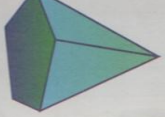
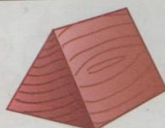




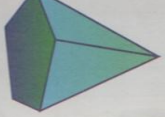



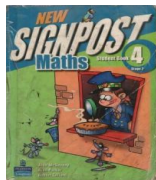
Assignment






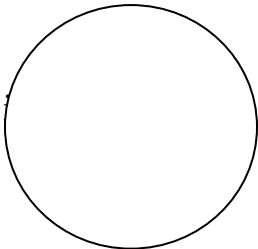
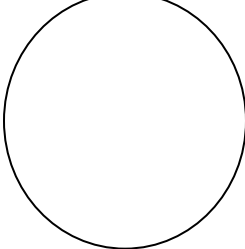
Nil



| | |
|---|---|
|  Assessment | Diagnostic test |
|  References | Nsp 4 pg 101  |

| | |
|--|---|
|  <p>Teacher</p> | <p>Name :Mr Daniel & Mrs Nampass Subject : <u>Mathematics</u></p> |
|  <p>Date</p> | |
|  | <p><u>Topic : Prisms and Pyramids</u> <u>Lesson number : 11</u></p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to : Make,compare, describe and name three-dimensional objects including pyramids, and represents them in drawings.</p> |
|  <p>Introduction</p> | <p>Ask students to ; - describe the features of prisms and pyramids together, -Name some types of prisms and pyramids. -Review the features of both prisms and pyramids before doing written activities.</p> |
|  | <p><u>Catch phrase for the lesson</u> <u>Prisms and pyramids are solids</u></p> |
|  | <p><u>Summary</u> -Prisms and pyramids are solids. -Prisms and pyramids are named according to the shape of</p> |

| | |
|--|--|
| <p>Learners notes</p> | <p>their base.</p> <p>Prisms</p> <ul style="list-style-type: none"> -have a uniform cross-section. -have two identical ends [same shape and size.they are called bases] -all other faces are rectangles. -prisms are named by the shape at the two identical ends. <p>Examples :</p>  <p>Pyramids</p> <ul style="list-style-type: none"> -has a polygon for a base[one base]. - all other faces are triangles. -pyramids are named by the shape of their base. <p>Examples :</p>  |
|  <p>Visual aids</p> | |
|  <p>Exercises</p> | <p><u>Activity 1-2</u></p> |

| | | | | | | | | | | | | | | |
|--|---|---|---|---|---|--|---|-----|-----|-----|-----|-----|-----|--|
| | <div>3:15 Drawing prisms and pyramids</div> <div>1 Describe each object.</div> <table><tr><td>A<div></div></td><td>B<div></div></td><td>C<div></div></td></tr><tr><td>D<div></div></td><td>E<div></div></td><td>F<div></div></td></tr></table> <div>2 Write the name of solid:</div> <table><tr><td>a A</td><td>b B</td><td>c C</td></tr><tr><td>d D</td><td>e E</td><td>f F</td></tr></table> | A  <div></div> | B  <div></div> | C  <div></div> | D  <div></div> | E  <div></div> | F  <div></div> | a A | b B | c C | d D | e E | f F | |
| A  <div></div> | B  <div></div> | C  <div></div> | | | | | | | | | | | | |
| D  <div></div> | E  <div></div> | F  <div></div> | | | | | | | | | | | | |
| a A | b B | c C | | | | | | | | | | | | |
| d D | e E | f F | | | | | | | | | | | | |
| <div></div> <div>Assignment</div> | <div>Nil</div> | | | | | | | | | | | | | |
| <div></div> <div>Assessment</div> | <div>Diagnostic test</div> | | | | | | | | | | | | | |
| <div></div> <div>References</div> | <div>Nsp 4 pg 101</div> <div></div> | | | | | | | | | | | | | |

| | |
|---|---|
|  <p>Teacher</p> | <p>Name : Mr Daniel & Mrs Nampass</p> <p>Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Analog & digital time</p> <p>Lesson number : 12</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to :</p> <p>Read and record time in one-minute intervals and makes comparison between time units.</p> |
|  <p>Introduction</p> | <p>-Have two clock faces on the board , showing these times.</p> <p>i] 10 minutes past 7 ii] 10 minutes to 7</p> <p>-have students say the times shown on the two clocks before telling them the answers.</p> <p>i] 10 minutes past 7 ii] 10 minutes to 7</p> <p>-Ask students fill digits it the clock face and then show these times on the clocks.</p> <p>i] 20 minutes past 8 ii] 15 minutes to 4</p> <div style="display: flex; justify-content: space-around; align-items: center; height: 150px;">   </div> <p>Go through answers together.</p> <p>Explain and show students the Past and TO side of a clock</p> |

| | |
|---|---|
| | <p>face.</p> <p>when the minute hand points to :</p> <ul style="list-style-type: none"> - 1 it is 5mins past. - 2 it is 10 min past. - 3 it is 15 min past - 4 it is 20 mins past - 5 it is 25 minutes past <div data-bbox="505 533 1321 621" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>When the minute hand points to 6, it is 30 minutes past or half past</p> </div> <p>When the minute hand points to :</p> <ul style="list-style-type: none"> - 7 it is 25 minutes to. - 8 it is 20 minutes to - 9 it is 15 minutes to - 10 it is 10 minutes to - 11 it is 5 minutes to <div data-bbox="496 961 1253 1050" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>When the minute hand points to 12, we say its : 00 or o'clock</p> </div> |
|  | <p><u>Catch phrase for the lesson</u></p> <p>There 5 minutes between each digit in a clock. A clock has a <u>to</u> and a <u>past</u> side.</p> |
|  <p>Learners notes</p> | <p><u>Summary</u></p> <p>when the minute hand points to :</p> <ul style="list-style-type: none"> - 1 it is 5mins past. - 2 it is 10 min past. - 3 it is 15 min past - 4 it is 20 mins past - 5 it is 25 minutes past <div data-bbox="505 1791 1321 1879" style="border: 1px solid black; padding: 5px; text-align: center;"> <p>When the minute hand points to 6, it is 30 minutes past or half past</p> </div> |

When the minute hand points to :

- 7 it is **25 minutes to**.
- 8 it is **20 minutes to**
- 9 it is **15 minutes to**
- 10 it is **10 minutes to**
- 11 it is **5 minutes to**

When the minute hand points to 12,
we say its : **00** or **o'clock**



Visual aids



Exercises

Activity 1

4:18 Analog and digital time

On each face show the time given.

a 16 past 7

b 10 to 3

c 25 to 6

d 4 past 10

e 27 past 9

f a quarter to 8

g 7 past 4

h 20 to 11

i 5 to 2

j 19 past 12



Assignment

Nil



Diagnostic test

| | |
|---|---|
| Assessment | |
|  <p>References</p> | <p>Nsp 4 pg 130</p>  |



Teacher

Name : Mr Daniel & Mrs Nampass
Subject : Mathematics



Date



Topic : Digital and Analog time
Lesson number :13



Learning
outcomes

By the end of this lesson students should be able to read and record time in one-minute intervals and makes comparison between time units.



Introduction

-Give student this digital time and let them say what the time is.

5: 14

-let students give answers and then go through the answer with them.

14 minutes past 5

Explain students which digit shows the number of minutes and which one shows the number of hours by using this table.

| Hours | : | Minutes |
|-------|---|---------|
| 5 | : | 14 |

5 is the number of hours

14 is the number of minutes

the time is 14 past 5

Tell student that the

-digits before the colon gives you the number of hours.

| | |
|--|---|
| | <p>- digits after the colon gives you the number of minutes.</p> <p>Let students try these.</p> <p>Write the time shown on each digital time.</p> <p>a.</p> <div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">7 : 20</div> _____ past _____ |
|--|---|

3 : 50

_____ to _____

- 9 it is **15 minutes to**
- 10 it is **10 minutes to**
- 11 it is **5 minutes to**

When the minute hand points to 12,
we say it is **:00** or **o'clock**



Visual aids



Exercises

Exercise 2-3




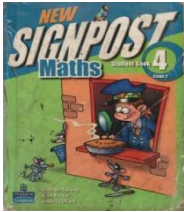
2 Complete the label for each time shown.






| | | | | |
|--|--|--|--|--|
| a | b | c | d | e |
| | | | | |
| <input type="text"/> past <input type="text"/> | <input type="text"/> to <input type="text"/> | <input type="text"/> past <input type="text"/> | <input type="text"/> past <input type="text"/> | <input type="text"/> to <input type="text"/> |

| | | | | |
|--|--|--|--|--|
| f | g | h | i | j |
| | | | | |
| <input type="text"/> to <input type="text"/> | <input type="text"/> past <input type="text"/> | <input type="text"/> to <input type="text"/> | <input type="text"/> past <input type="text"/> | <input type="text"/> to <input type="text"/> |











3 How many more minutes will it take for the minute hand to reach the 12.


| | | | | |
|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|--------------------------------------|
| a | b | c | d | e |
| | | | | |
| <input type="text"/> minutes | <input type="text"/> minutes | <input type="text"/> minutes | <input type="text"/> minutes | <input type="text"/> minutes |
| The time is: <input type="text"/> | The time is: <input type="text"/> | The time is: <input type="text"/> | The time is: <input type="text"/> | The time is: <input type="text"/> |

| | |
|---|---|
|  Assignment | Nil |
|  Assessment | Diagnostic test |
|  References | Nsp 4 pg 130  |

| | |
|--|--|
|  <p>Teacher</p> | <p>Name :Mr Daniel & Mrs Nampass Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Drawing picture graphs Lesson number : 14</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to : Gather, organise and display data using graphs, and interprets the results.</p> |
|  <p>Introduction</p> | <p>-Ask students ; i] what is a picture graph ? -allow students discuss before telling them that a 'Picture graph is a diagram or drawing used to record a collection of data using pictures.'</p> <p>Give them an example of a picture graph.</p> |

Title : heart stickers recieved from class 4 teacher

| | | | | | |
|--------------------------|----|---|---|---|---|
| number of stickers | 12 |  | | | |
| | 9 |  | | |  |
| | 6 |  |  | |  |
| | 3 |  |  |  |  |
| | | John | Dick | Ben | Luke |

 stands for 3 stickers

Explain to students that graphs are drawn using scales.
A scale in a picture graph tells us what each picture represents in real.

-Ask students to study the graph and answer the questions below .

- How many stickers were recieved by
a. Dick ? _____ stickers. b. Ben ? _____ stickers.
c. Luke ? _____ stickers.
- Who got the most number of stickers ? _____
- Who got the least number of stickers ? _____
- How many stickers did the students received altogether ?
_____ stickers.

Go through answers together as students finish.

Answers :

- 1 a. Dick- 6 stickers b. Ben – 3 stickers c. Luke – 12 stickers.
2. John 3. Ben 4.30 stickers altogether.



Catch phrase for the lesson

‘ a Picture graph is a diagram or drawing used to record a collection of data using pictures.’



Learners notes

Summary

A Picture graph is a diagram or drawing used to record a collection of data using pictures.

Graphs have a title that tells us what the graph is about.

A scale in a picture graph tells us what each picture represents in real or stands for.



Visual aids



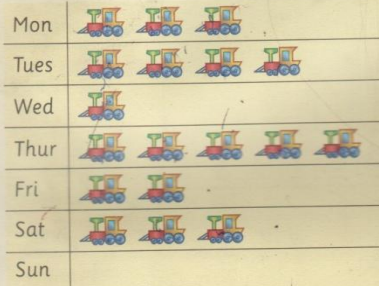
Exercises

Activities 1-2

5:09 Reading picture graphs

1

Toy Train Sales Last Week



Stands for 4 sales

a How many toy trains were sold on:

i Tuesday? ii Saturday?

b On which day were the most trains sold?

c On what two days were the same number of trains sold?

d How many more trains were sold on Thursday than Friday?

e What is the total number of trains sold?

f Why do you think no sales were made on Sunday?

2

a How many cars crossed the bridge from 1 pm to 2 pm?

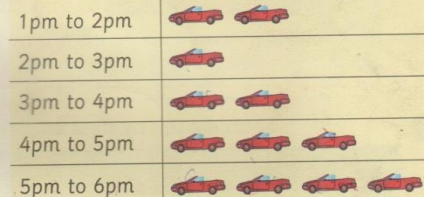
b During which hour did the least number cross the bridge?

c During which hour did 30 cars cross?




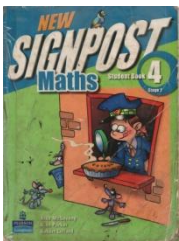
d How many cars crossed altogether?






e Why do you think so many cars crossed between 4 pm and 6 pm?

Cars Crossing the Bridge



Stands for 10 cars

| | |
|---|---|
|  Assignment | Nil |
|  Assessment | Diagnostic test |
|  References | Nsp 4 pg 154  |

| | |
|--|---|
|  <p>Teacher</p> | <p>Name : Mr Daniel & Mrs Nampass Subject : Mathematics</p> |
|  <p>Date</p> | |
|  | <p>Topic : Numbers to 9999 Lesson number : 15</p> |
|  <p>Learning outcomes</p> | <p>By the end of this lesson students should be able to : count, order, read and record numbers up to four digits.</p> |
|  <p>Introduction</p> | <p>Have students do some counting. a] count from 1-100 b]count in hundreds from 100 -9900 b]count in thousands from 1000 to 10000</p> <p>Put up a 4digit number on the board.</p> <p>For example : 1432 Ask students these questions. -How many ones,tens,hundreds,or thousands in this number - what are the values of each digit in the number.</p> <p>Go through the number to see the value of each digits in the number. $1000 + 400 + 30 + 2 = 1432$ 1 thousand 4 hundreds 3 tens 2 Ones</p> |



Catch phrase for the lesson

Every digit in a number has a value.



Learners notes

Summary

Numbers are made up of digits.

Every digit in a number has a value. It can be a one-, two-, three-, four-digit number and so forth.

In a four digit number the values are: thousands, hundreds, tens, ones

Example : 1432

| thousand | hundred | ten | ones |
|----------|---------|-----|------|
| 1 | 4 | 3 | 2 |



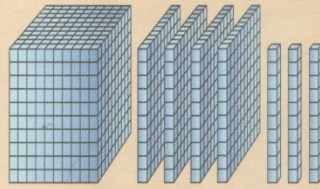
Visual aids



Exercises

Do exercise 1 and 2

1:19 Numbers to 9999



1430 is the same as
14 hundreds and 3 tens
or 143 tens.



1 Complete these numeral expanders.

a 1578



b 2365



c 3490



d 4206



2 Use numeral expanders to find the number of hundreds in:

a 1760

1760

b 1934

1934

c 1503

1503

d 2641

2641

e 3981

3981

f 6275

6275

g 9634

9634

h 7190

7190

1463 has
146 tens.



Assignment



Assessment

Nil

Diagnostic test

Nsp 4 pg 19



References

