STANDARD FIVE

1.0 NUMBERS

1.1 WHOLE NUMBERS

1.2 Specific Objectives

By the end of the topic, the learner should be able to:

a) recognize and identify place value and total value up to hundreds of thousands
b) read and write numbers up to 999 999 in symbols and in words
c) round off numbers to the nearest ten and hundred
d) recognize and identify numbers divisible by 3, 4, 6 and 9
e) recognize and identify prime numbers less than one hundred
f) determine the greatest common divisor (GCD) highest common factor (HCF) of up to three given numbers
g) determine the lowest common multiple (LCM) of up to 3 given numbers
h) recognize, read and write Roman numbers up to 50.

1.3 Content

1.3.1 Place value and total value up to hundreds of thousands.
1.3.2 Reading and writing numbers up to 999 999 in words and symbols.
1.3.3 Rounding off numbers to the nearest tens and hundreds.
1.3.4 Divisibility tests for 3, 4, 6 and 9.
1.3.5 Prime numbers less than 100.
1.3.6 Prime factors.
1.3.7 Common divisors (factors).
1.3.8 Greatest common divisor (GCD)
1.3.9 Highest common factor (HCF).
1.3.10 Common multiples.
1.3.11 Least common multiple (LCM).
1.3.12 Roman numbers up to 50.

Note

Operations involving Roman numbers should be avoided.

2.0 FRACTIONS

2.1 Specific Objectives

By the end of the topic, the learner should be able to:

a) simplify fractions by cancellations
b) convert mixed numbers to improper fractions and improper fractions to mixed numbers.

2.2 Content

2.2.1 Simplifying fractions by cancellation.
2.2.2 Conversion of mixed numbers to improper fractions and vice versa.

3.0 DECIMALS

3.1 Specific Objectives

By the end of the topic, the learner should be able to:

a) recognize and identify decimals up to thousandths
b) convert fractions to decimals and decimals to fractions.

3.2 Content

3.2.1 Place value up to thousandths.
3.2.2 Conversion of fractions to decimals.
3.2.3 Conversion of decimals to fractions.

Note

Conversion should not involve recurring decimals.

4.0 OPERATIONS

4.1 WHOLE NUMBERS

4.2 Specific Objectives

By the end of the topic, the learner should be able to:

a) work out addition and subtraction involving up to 6 - digit numbers
b) multiply numbers by up to 2 - digit numbers with product not exceeding 999999
c) divide a number with not more than 4 digits by a 2 - digit number
d) recognize and identify patterns involving even, odd and prime numbers.

4.3 Content

4.3.1 Addition and subtraction of up to 6 - digit numbers.
4.3.2 Multiplication of 3 single digit numbers.
4.3.3 Multiplication by up to 2 - digit numbers.
4.3.4 Division of up to 4 - digit numbers by 2 - digit numbers with the divisor less than the dividend.
4.3.5 Patterns involving even, odd and prime numbers.

Note

For number patterns, use simple sequences involving even, odd and prime numbers.

5.0 FRACTIONS

5.1 Specific Objectives

By the end of this topic, the learner should be able to:

a) add and subtract two fractions using LCM
b) add and subtract two mixed numbers using LCM.
c) multiply a mixed number by a whole number

5.2 Content

5.2.1 Addition and subtraction of two fractions involving renaming of one fraction.
5.2.2 Addition and subtraction of two fractions involving renaming of both fractions.
5.2.3 Addition and subtraction of mixed numbers.
5.2.4 Multiplication of mixed numbers by whole numbers.

6.0 DECIMALS

6.1 Specific Objectives

By the end of the topic, the learner should be able to:

a) add and subtract decimals up to 3 decimal places
b) multiply decimals up to 3 decimal places by whole numbers.

6.2 Content

6.2.1 Addition and subtraction of decimals.
6.2.2 Multiplication of decimals by whole numbers.

7.0 MEASUREMENT

7.1 LENGTH

7.2 Specific Objectives

By the end of the topic, the learner should be able to:

a) measure length to the nearest metre and centimetre
b) recognize and identify kilometre as a unit of measuring length
c) convert metres to kilometres and kilometres into metres
d) work out the four basic operations involving length in kilometres, metres and centimeters

e) work out perimeter of squares and rectangles.

7.3 Content

7.3.1 Measuring length to the nearest metre and centimetre.

7.3.2 Kilometre as a unit of measuring length.

7.3.3 Conversion of metres to kilometres and vice versa.

7.3.4 Addition and subtraction involving units of length.

7.3.5 Multiplication and division involving units of length.

7.3.6 Perimeter of squares and rectangles involving kilometres, metres and centimetres.

8.0 AREA

8.1 Specific Objectives

By the end of the topic, the learner should be able to:

a) recognize and identify the square metre (m^2) and square centimetre (cm^2) as a unit of measuring area

b) work out area of squares, rectangles and triangles.

8.2 Content

8.2.1 Square metre and square centimetre.

8.2.2 Area of squares and rectangles using the formula.

8.2.3 Finding area of a triangle as half area of a rectangle practically.

9.0 VOLUME

9.1 Specific Objectives

By the end of the topic, the learner should be able to:

a) recognize and identify the cubic centimetre (cm^3) as a unit of measuring volume

b) work out volume of cubes and cuboids.

9.2 Content

9.2.1 Cubic centimetre as a unit of measuring volume.

9.2.2 Volume as a product of number of unit cubes in a layer by number of layers.

9.2.3 Volume of cubes and cuboids using the formula.

10.0 CAPACITY

10.1 Specific Objectives

By the end of the topic, the learner should be able to:

a) recognize and identify the millilitre (ml) as unit of measuring capacity

b) measure and estimate capacity in millilitres.

c) convert millilitres to litres and litres into millilitres

d) work out addition and subtraction involving capacity in litres and millilitres

e) work out multiplication and division involving capacity by whole numbers.

10.2 Content

10.2.1 Millilitre as a unit of measuring capacity.

10.2.2 Estimating and measuring capacity in millilitres.

10.2.3 Conversion of millilitres to litres and vice versa.

10.2.4 Addition and subtraction involving capacity in litres and millilitres.

10.2.5 Multiplication and division involving litres and millilitres by whole numbers.

11.0 MASS

11.1 Specific Objectives

By the end of the topic, the learner should be able to:

a) recognize and identify the gram as a unit of measuring mass

b) measure and estimate mass to the nearest gram
c) convert kilograms to grams and grams into kilograms
d) work out addition and subtraction involving mass in kilograms and grams
e) work out multiplication and division involving mass in kilograms and grams by whole numbers.

11.2 Content

11.2.1 The gram as a unit of measuring mass.
11.2.2 Measuring and estimating mass to the nearest gram.
11.2.3 Conversion of kilograms to grams and vice versa.
11.2.4 Addition and subtraction involving mass in kilograms and grams.
11.2.5 Multiplication involving mass in kilograms and grams.
11.2.6 Division involving mass in kilograms and grams by whole numbers.

12.0 MONEY

12.1 Specific Objectives

By the end of the topic, the learner should be able to:
a) prepare bills from given information
b) read, interpret and work out problems involving postal charges.

12.2 Content

12.2.1 Use of bills in buying and selling.
12.2.2 Inland postal charges for letters and parcels.

13.0 TIME

13.1 Specific Objectives

By the end of the topic, the learner should be able to:
a) estimate time by shadows
b) read, tell and write time in a.m and p.m
c) recognize and identify the second as a unit of measuring time
d) convert minutes to seconds and seconds to minutes
e) work out addition and subtraction involving units of time
f) work out multiplication and division involving units of time by whole numbers.

13.2 Content

13.2.1 Estimating time by length of shadow.
13.2.2 Reading, telling and writing time in a.m. and p.m.
13.2.3 The second as a unit of measuring time.
13.2.4 Conversion of minutes to seconds and vice versa.
13.2.5 Addition and subtraction involving time in hours, minutes and seconds.
13.2.6 Multiplication and division involving units of time by whole numbers.

14.0 GEOMETRY

14.1 Specific Objectives

By the end of the topic, the learner should be able to:
a) measure angles using the unit angle and the half disc
b) recognize and identify the degree as a unit of measuring angles
c) measure angles up to 180° using a proctactor
d) recognize and identify reflex angles
e) recognize and identify angles on a straight line

f) work out problems involving sum of angles of a triangle
g) state the properties of right - angled, isosceles and equilateral triangles
h) draw right -angled and equilateral triangles using a ruler and a protractor
i) draw parallel lines using a set square and a ruler
j) state properties of rectangles and squares
k) recognize and identify perpendicular lines
l) make patterns involving triangles rectangles and squares.

14.2 Content

14.2.1 Unit angle and half disc.
14.2.2 The degree as a unit of measuring angles.
14.2.3 The protractor.
14.2.4 The reflex angle.
14.2.5 Angles on a straight line.
14.2.6 Perpendicular lines.
14.2.7 Sum of angles of a triangle.
14.2.8 Properties of right - angled, isosceles and equilateral triangles.
14.2.9 Parallel lines.
14.2.10 Properties of squares and rectangles.
14.2.11 Making patterns.

15.0 ALGEBRA

15.1 Specific Objectives

By the end of the topic, the learner should be able to:
a) simplify algebraic expressions
b) work out simple equations in one unknown using the beam balance.

15.2 Content

15.2.1 Simplifying algebraic expressions.
15.2.2 Working out simple equations in one unknown.

16.0 TABLES AND GRAPHS

16.1 Specific Objectives

By the end of the topic, the learner should be able to:
a) collect and record data using tally marks
b) represent data in bar graphs
c) read and interpret bar graphs

16.2 Content

16.2.1 Collecting and recording data.
16.2.2 Representing data in bar graphs.
16.2.3 Reading and interpreting bar Graphs.

17.0 SCALE DRAWING

17.1 Specific Objectives

By the end of the topic, the learner should be able to:
a) represent length to a given scale
b) convert scale length to actual length and actual length to scale length.

17.2 Content

17.2.1 Linear scale in statement form.
17.2.2 Representing actual lengths with lines.
17.2.3 Conversion of scale lengths to actual length and vice versa.