**MINSTRY OF GENERAL EDUCATION**

**SOUTHERN PROVINCE**

SCHEMES OF WORK

**SUBJECT**: MATHEMATICS

**GRADE**: 5 **TERM**:1 **YEAR**: 2018

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| WEEK | TOPIC/CONTENT | GENERAL OUTCOMES | METHODS | T/L RESOURCES | REFERENCE |
| 1 | NUMBERS AND NOTATION* Introduction to Roman numeral
* Converting between Arabic and roman numeral.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Charts showing roman and Arabic numerals.
* A model of a clock face showing roman numerals.
* Flash cards showing roman numerals
 | * Syllabus p.34
* Longman mathematics grade 5 pupils’ books. P. 1-4
 |
| 2 | NUMBERS AND NOTATION* Ordering roman numerals
* assessment
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Charts showing roman and Arabic numerals.
* A model of a clock face showing roman numerals.
* Flash cards showing roman numerals
 | * Syllabus p.34
* Longman mathematics grade 5 pupils’ books. P. 1-4
 |
| 3 | ADDITION* Different ways of adding.
* Add whole numbers using the number line.
* Apply addition using the number line to solve problems in real life situations.
* Assessment
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * counters
* Chart showing adding on number line.
 | * Syllabus p.34

Longman mathematics grade 5 pupils’ books. P.5-10 |
| 4 | SUBTRACTION* Different ways of subtracting
* Subtract whole numbers using a number line.
* Apply subtraction and addition using the number line to solve problems in real life situations.
* assessment
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Counters
* Chart showing subtracting on number line.
 | • Syllabus p.34Longman mathematics grade 5 pupils’ books. P. 11-16 |
| 5 | COMBINED OPERATIONS* Combined operations using BODMAS
* Perform combined operations
 |  * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams

• Solve mathematical challenges in everyday life through problem solving | Explanation Group workQuestion and answerIndividual work demonstrationGames | * Chart showing basic mathematical operation symbols
* Chart showing BODMAS rule.
 | Syllabus p.34Longman mathematics grade 5 pupils’ books. P. 17 -23 |
| 6 | COMBINED OPERATIONS* Apply the commutative, associative and distributive laws to four basic mathematical,
* assessment
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams

• Solve mathematical challenges in everyday life through problem solving | Explanation Group workQuestion and answerIndividual work demonstrationGames | * Chart showing basic mathematical operation symbols
* Chart showing BODMAS rule.
 | Syllabus p.34Longman mathematics grade 5 pupils’ books. P. 17 -23 |
| 7 | MID – TERM TEST SETS* Set notations and symbols for sets.
* List all sub sets of a given set.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams

• Solve mathematical challenges in everyday life through problem solving | Explanation Group workQuestion and answerIndividual work demonstrationGames | * tests items and marking keys
* chart showing symbols for sets.
* Models of sets.
 | Syllabus p.35Longman mathematics grade 5 pupils’ books. P. 24-31 |
| 8 | SETS* Describe sets of numbers.
* Describe subset in a Venn diagram.
* assessment
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams

• Solve mathematical challenges in everyday life through problem solving | Explanation Group workQuestion and answerIndividual work demonstrationGames | * tests items and marking keys
* chart showing symbols for sets.
* Models of sets.
 | Syllabus p.35Longman mathematics grade 5 pupils’ books. P. 24-31 |
| 9 | FRACTIONS* Identify equivalent fractions by multiplying or dividing the same number with numerator and denominator.
* Express fractions with different denominators to the same denominator.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams

• Solve mathematical challenges in everyday life through problem solving | Explanation Group workQuestion and answerIndividual work demonstrationGames | * fruits
* papers
* shapes
* chart showing parts of a fraction
 | Syllabus p.35Longman mathematics grade 5 pupils’ books. P. 38 -48 |
| 10 | FRACTIONS* Add and subtract proper, improper and mixed fractions with different denominators.
* Apply knowledge of fractions to solve problems in real life situations
* Assessment

DECIMALS* Relate common fractions to decimals.
* Describe decimal numbers by their names (up to 2 decimal places)
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams

• Solve mathematical challenges in everyday life through problem solving* Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams

• Solve mathematical challenges in everyday life through problem solving. | Explanation Group workQuestion and answerIndividual work demonstrationGames | * fruits
* papers
* shapes
* chart showing parts of a fraction

Decimal chart | Syllabus p.35Longman mathematics grade 5 pupils’ books. P. 38 -48Syllabus p.36 -Longman mathematics grade 5 pupils’ books. P. 49 -61 |
| 11 | DECIMALS

|  |
| --- |
| * Add and subtract decimal numbers.
* Multiply decimal numbers by whole numbers.
* Divide decimal numbers by whole numbers (up to 2 decimal places WITHOUT REMAINDER).
* Apply decimals to solve problems in real life situations.
* Assessment
 |

 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams

•Solve mathematical challenges in everyday life through problem solving | Explanation Group workQuestion and answerIndividual work demonstrationGames | * Decimal chart
 | Syllabus p.36 -Longman mathematics grade 5 pupils’ books. P. 49 -61Syllabus p.36 -Longman mathematics grade 5 pupils’ books. P. 49 -61 |
| 12 - 13 | END OF TERM 1 TESTS |  |  |

**NB: FOR MIDTERM , TEST TWO SUBJECTS PER DAY AND TEACH THE OTHER SUBJECTS THAT APPEAR ON THE TIME TABLE THAT DAY.**

**MINSTRY OF GENERAL EDUCATION**

**SOUTHERN PROVINCE**

SCHEMES OF WORK

**SUBJECT**: MATHEMATICS

**GRADE**: 5 **TERM**: 2 **YEAR**: 2018

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| WEEK | TOPIC/CONTENT | GENERAL OUTCOMES | METHODS | T/L RESOURCES | REFERENCE |
| 1 |

|  |
| --- |
| FACTORS AND MULTIPLES  |

* Identify factors of given numbers
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * counters
* chart showing multiplication tables
 | * Syllabus p.35
* Longman mathematics grade 5 pupils’ books. P. 32-37
 |
| 2 |

|  |
| --- |
| FACTORS AND MULTIPLES  |

* Identify the Highest Common Factor (HCF)
* Identify multiples of a given number.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * counters
* chart showing multiplication tables
 | * Syllabus p.35
* Longman mathematics grade 5 pupils’ books. P. 32-37
 |
| 3 |

|  |
| --- |
| FACTORS AND MULTIPLES  |

* Identify the Lowest Common Multiple (LCM) by listing
* Assessment
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * counters
* chart showing multiplication tables
 | * Syllabus p.35
* Longman mathematics grade 5 pupils’ books. P. 32-37
 |
| 4 | SOCIAL AND COMMERCIAL ARITHMETIC* Prepare simple household bills (budgeting).
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Household bills
 | * Syllabus p.36

Longman mathematics grade 5 pupils’ books. P. 62 - 69 |
| 5 | SOCIAL AND COMMERCIAL ARITHMETIC* Apply simple ready-reckoners
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | Calculatorsreckoners | * Syllabus p.36

Longman mathematics grade 5 pupils’ books. P. 62 - 69 |
| 6 | SOCIAL AND COMMERCIAL ARITHMETIC* Read and interpret water and electricity bills.
* Assessment
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | Electricity billsWater bills | * Syllabus p.36

Longman mathematics grade 5 pupils’ books. P. 62 - 69 |
| 7 | MID-TERMTESTSTATISTICS* Understand stem-leaf plot and on a bar graph.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Test items and marking keys.
* Bar graphs
 | • Syllabus p.38Longman mathematics grade 5 pupils’ books. P. 100 - 105 |
| 8 | STATISTICS* Collect and present data on a stem-leaf plot and on a bar
* assessment
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | Bar graphs | • Syllabus p.38Longman mathematics grade 5 pupils’ books. P. 100 - 105 |
| 9 | STATISTICS* solve problems in real life situations.
* assessment
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | Bar graphscalculators | • Syllabus p.38Longman mathematics grade 5 pupils’ books. P. 100 - 105 |
| 10 | RELATIONS AND MAPPINGS* Illustrate a one-to-many and many-to-one relations.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams

• Solve mathematical challenges in everyday life through problem solving | Explanation Group workQuestion and answerIndividual work demonstrationGames | * Diagrams
* A chart showing links between two diagrams
 | Syllabus p.34Longman mathematics grade 5 pupils’ books. P. 106 -108 |
| 11 | RELATIONS AND MAPPINGS* Apply knowledge of relations and mappings in real life situations.
* Assessment
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams

• Solve mathematical challenges in everyday life through problem solving | Explanation Group workQuestion and answerIndividual work demonstrationGames | * Diagrams
* A chart showing links between two diagrams
 | Syllabus p.34Longman mathematics grade 5 pupils’ books. P. 106 -108 |
| 12 - 13 | END OF TERM 2 TESTS |  |  |

**NB: FOR MIDTERM , TEST TWO SUBJECTS PER DAY AND TEACH THE OTHER SUBJECTS THAT APPEAR ON THE TIME TABLE THAT DAY.**

**MINSTRY OF GENERAL EDUCATION**

**SOUTHERN PROVINCE**

SCHEMES OF WORK

**SUBJECT**: MATHEMATICS

**GRADE**: 5 **TERM**: 3 **YEAR**: 2018

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| WEEK | TOPIC/CONTENT | GENERAL OUTCOMES | METHODS | T/L RESOURCES | REFERENCE |
| 1 | PLANE SHAPES* Identify and draw perpendicular and parallel lines.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Manillar papers
* Plain papers
* Rulers
* Camps
* Bostic
* Erasers
* Glue
* Pencils
* Crayons
 | * Syllabus p.37
* Longman mathematics grade 5 pupils’ books. P. 70 - 81
 |
| 2 | PLANE SHAPES* Describe trapezium, rhombus and parallelogram.
* Draw trapezium, rhombus and parallelogram.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Manillar papers
* Plain papers
* Rulers
* Camps
* Bostic
* Erasers
* Glue
* Pencils
* Crayons
 | * Syllabus p.37
* Longman mathematics grade 5 pupils’ books. P. 70 - 81
 |
| 3 | PLANE SHAPES* Identify and draw perpendicular and parallel lines.
* Describe trapezium, rhombus and parallelogram.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Manillar papers
* Plain papers
* Rulers
* Camps
* Bostic
* Erasers
* Glue
* Pencils
* Crayons
 | * Syllabus p.37
* Longman mathematics grade 5 pupils’ books. P. 70 - 81
 |
| 4 | PLANE SHAPES* Identify the uses of a pair of compasses.
* Use a pair of compass to draw a circle.
* Identify centre, diameter and radius of a circle
* ASSESSMENT
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Manillar papers
* Plain papers
* Rulers
* Camps
* Bostic
* Erasers
* Glue
* Pencils
* Crayons
 | * Syllabus p.37
* Longman mathematics grade 5 pupils’ books. P. 70 - 81
 |
| 5 | SOLID SHAPES* Identify face, vertex and edges of cuboids and cubes
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Manillar papers
* Plain papers
* Rulers
* Camps
* Bostic
* Erasers
* Glue
* Pencils
* Crayons
 | * Syllabus p.37

Longman mathematics grade 5 pupils’ books. P. 82 -86 |
| 6 | SOLID SHAPES* Draw nets of cuboids and cubes.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Manillar papers
* Plain papers
* Rulers
* Camps
* Bostic
* Erasers
* Glue
* Pencils
* Crayons
 | * Syllabus p.37

Longman mathematics grade 5 pupils’ books. P. 82 -86 |
| 7 | MID- TERM TESTSOLID SHAPES* Draw/sketch cuboid and cube
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Test items and marking keys
* Manillar papers
* Plain papers
* Rulers
* Camps
* Bostic
* Erasers
* Glue
* Pencils
* Crayons
* Carton box
 | * Syllabus p.37

Longman mathematics grade 5 pupils’ books. P. 82 -86 |
| 8 | MEASURES* Find the perimeter of triangle, parallelograms, trapezium, rhombus and composite shapes.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Chart showing the shapes of triangle, parallelograms, trapezium, rhombus and composite shapes
* Plain papers
* Rulers
* Erasers
* Pencils
* Measuring tape.
* Measuring cylinder.
 | • Syllabus p.37 - 38Longman mathematics grade 5 pupils’ books. P. 87 - 99 |
| 9 | MEASURES* Derive formula for area of triangle, parallelograms, trapezium and rhombus.
* Calculate areas of triangle, parallelograms, trapezium, rhombus and composite shapes.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Chart showing the shapes of triangle, parallelograms, trapezium, rhombus and composite shapes
* Plain papers
* Rulers
* Erasers
* Pencils
* Measuring tape.

Measuring cylinder. | • Syllabus p.37 - 38Longman mathematics grade 5 pupils’ books. P. 87 - 99 |
| 10 | MEASURES* Describe volume.
* Use standard units to measure volume (cm3, m3).
* Relate volume to capacity.
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Chart showing the shapes of triangle, parallelograms, trapezium, rhombus and composite shapes
* Plain papers
* Rulers
* Erasers
* Pencils
* Measuring tape.

Measuring cylinder. | • Syllabus p.37 - 38Longman mathematics grade 5 pupils’ books. P. 87 - 99 |
| 11 | MEASURES.* Derive the formulae for finding volume.
* Calculate the volume of cubes and cuboids
* ASSESSMENT
 | * Develop algebraic, geometry and arithmetic skills in mathematics.
* develop mathematical concepts on shapes and diagrams
* Solve mathematical challenges in everyday life through problem solving
 | Explanation Group workQuestion and answerIndividual work | * Chart showing the shapes of triangle, parallelograms, trapezium, rhombus and composite shapes
* Plain papers
* Rulers
* Erasers
* Pencils
* Measuring tape.

Measuring cylinder. | • Syllabus p.37 - 38Longman mathematics grade 5 pupils’ books. P. 87 - 99 |
| 12 - 13 | END OF TERM 3 TESTS |  |  |

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