**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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 work  Question and answer  Individual work | * Counters * Chart showing subtracting on number line. | • Syllabus p.34  Longman 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 work  Question and answer  Individual work demonstration  Games | * Chart showing basic mathematical operation symbols * Chart showing BODMAS rule. | Syllabus p.34  Longman 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 work  Question and answer  Individual work demonstration  Games | * Chart showing basic mathematical operation symbols * Chart showing BODMAS rule. | Syllabus p.34  Longman 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 work  Question and answer  Individual work demonstration  Games | * tests items and marking keys * chart showing symbols for sets. * Models of sets. | Syllabus p.35  Longman 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 work  Question and answer  Individual work demonstration  Games | * tests items and marking keys * chart showing symbols for sets. * Models of sets. | Syllabus p.35  Longman 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 work  Question and answer  Individual work demonstration  Games | * fruits * papers * shapes * chart showing parts of a fraction | Syllabus p.35  Longman 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 work  Question and answer  Individual work demonstration  Games | * fruits * papers * shapes * chart showing parts of a fraction   Decimal chart | Syllabus p.35  Longman mathematics grade 5 pupils’ books. P. 38 -48  Syllabus 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 work  Question and answer  Individual work demonstration  Games | * Decimal chart | Syllabus p.36 -  Longman mathematics grade 5 pupils’ books. P. 49 -61  Syllabus p.36 -  Longman mathematics grade 5 pupils’ books. P. 49 -61 |
| 12 - 13 | END OF TERM 1 TESTS | | |  |  |

**NB: FOR MIDTERM , TESTTWO 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

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| --- | --- | --- | --- | --- | --- |
| 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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 work  Question and answer  Individual work | Calculators  reckoners | * 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 work  Question and answer  Individual work | Electricity bills  Water bills | * Syllabus p.36   Longman mathematics grade 5 pupils’ books. P. 62 - 69 |
| 7 | MID-TERMTEST  STATISTICS   * 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 work  Question and answer  Individual work | * Test items and marking keys. * Bar graphs | • Syllabus p.38  Longman 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 work  Question and answer  Individual work | Bar graphs | • Syllabus p.38  Longman 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 work  Question and answer  Individual work | Bar graphs  calculators | • Syllabus p.38  Longman 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 work  Question and answer  Individual work demonstration  Games | * Diagrams * A chart showing links between two diagrams | Syllabus p.34  Longman 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 work  Question and answer  Individual work demonstration  Games | * Diagrams * A chart showing links between two diagrams | Syllabus p.34  Longman mathematics grade 5 pupils’ books. P. 106 -108 |
| 12 - 13 | END OF TERM 2 TESTS | | |  |  |

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**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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 TEST  SOLID 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 work  Question and answer  Individual 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 work  Question and answer  Individual 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 - 38  Longman 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 work  Question and answer  Individual 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 - 38  Longman 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 work  Question and answer  Individual 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 - 38  Longman 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 work  Question and answer  Individual 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 - 38  Longman mathematics grade 5 pupils’ books. P. 87 - 99 |
| 12 - 13 | END OF TERM 3 TESTS | | |  |  |

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