**MINISTRY OF GENERAL EDUCATION**

**SOUTHERN PROVINCE**

**SCHEMES OF WORK**

SUBJECT: MATHEMATICS

**GRADE**: 7 **TERM**: 1 **YEAR**: 2018

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| WEEK | TOPIC/CONTENT | GENERAL OUTCOMES | METHODS | L/T RESOURCES | REFERENCES |
| 11 | **FRACTION**   * Additions of the fractions * Subtractions of the fractions | -Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Group work * Demonstration * discussion | * oranges * charts | Longman mathematics(pp)boo(1-5)  oxford mathematicspp book pg 1-8  syllabus grade 7 |
| 2 | **FRACTION**   * multiplication of fractions * Division of fraction * Practical problems involving fractions * assessment | solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Group work * Demonstration * discussion | * charts | Longman mathematics(pp)boo(6-13)  oxford mathematics book pg 9-17  Mathematics syllabus grade 7 |
| 3 | DECIMAL NUMBERS   * addition of decimals * subtraction of decimals * multiplication of decimals | Solvemathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Group work * Demonstration * discussion | WALL  CLOCK   * charts | Longman mathematics(pp)boo(14-19)  oxford Mathematicspp book pg 18-28  Mathematics syllabus grade 7 |
| 4 | **DECIMAL NUMBERS**   * Division of decimals * Converting common fraction to decimals * Ordering fractions and decimals * Using >,< and = to compare decimals * assessment | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Group work * Demonstration * discussion | WALL CLOCK   * charts | Longman mathematics(pp)boo(19-29)  oxford mathematics pp book pg 28-35  Mathematics syllabus grade 7 |
| 5 | **PERCENTAGES**   * describe a percentage * percentages and decimals * percentages and common fraction | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Group work * Demonstration * discussion | * charts | Longman mathematics(pp)boo(30-35)  oxford mathematics pp book pg 36-40  mathematics syllabus grade 7 |
| 6 | **PERCENTAGES**   * application (solving problems involving percentages)   **RATIO AND PROPORTION**   * Ratio and proportion * Direct and inverse proportion | Solvemathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Group work * Demonstration * discussion | * oranges * charts   labels of compassions package food stuff | Longman mathematics(pp)book  oxford mathematics pp book pg 1-8  Mathematics syllabus grade 7 |
| 7 | **RATIO AND PROPORTION**   * graphs illustrating direct and indirect proportion * mid- term assessment | Solvemathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Group work * Demonstration * discussion | * oranges * charts * models * Chart of direct and indirect graphs * Graph paper | Longman mathematics(pp)book(37)  oxford math’s pp book pg 56-60  math syllabus grade |
| 8  9 | **SOCIAL AND COMMERCIAL ARITHMETIC**  -convert between local and foreign currencies  INTERGERS   * Understanding integers * Positive and negative number on a number line * Comparing integers * Ordering integers | Solvemathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical conceptson shapes anddiagrams | * Group work * Demonstration * Discussion * Group work * Demonstration * Discussion * Group work * Demonstration * Discussion | * charts showing popular currencies * common * currencies * integers * Charts * models | Longman mathematics(pp)book (61-69)  oxford math’s pp book pg 51-59  math syllabus grade 7  Longman mathematics(pp)boo(60 -64)  oxford mathematics pp book pg 70-74  mathematics syllabus grade 7 |
| 10 | INTERGERS   * Addition and subtract integers. * Addition and subtraction where brackets are included * Application of integers in real life | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Group work * Demonstration * Discussion | * oranges * charts * thermometer * bank statement | Longman mathematics(pp)boo(64-69)  oxford math’s pp book pg 74-83  mathemaitics syllabus grade 7 |
| 11 | NUMBER BASES   * Base ten numbering system * Converting from base ten base two, five and eight * Convert between base two and five | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Group work * Demonstration * Discussion * Group work * Demonstration * Discussion * Group work * Demonstration * Discussion | * charts * oranges * charts * thermometer | Longman mathematics(pp)boo(70-78)  oxford mathematics pp book pg 84-90  mathematics syllabus grade 7 |
| 12 | NUMBER BASES  Convert between base two and five | Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work |  | Mathematics syllabus grade 7 |
| 13 | **Assessment Marking , compiling and closing** |  |  |  |  |

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

**MINISTRY OF GENERAL EDUCATION**

**SOUTHERN PROVINCE**

**SCHEMES OF WORK**

SUBJECT: MATHEMATICS

**GRADE**: 7 **TERM**: 2 **YEAR**: 2018

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| WEEK | TOPIC/CONTENT | GENERAL OUTCOME | METHODS | L /T RESOURCES | REFERENCE |
| 1 | **NUMBER BASES**  -Addicting and subtraction in different bases  -**NUMBER AND NUMBER SEQUENSES**  -perfect squares and number square | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration   Discussion | * charts | Longman mathematics(pp)book(79-85)  oxford mathematicspp book pg 94-99  mathematics syllabus grade 7 |
| 2 | -**NUMBER AND NUMBER SEQUENSES**  -squares and square root of whole numbers  -perfect cubes  -Cubes and cube root of whole numbers | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration   Discussion | * Charts | Longman mathematics(pp)book(86-90)  oxford mathematics pp book pg 100-103  mathematics syllabus grade 7 |
| 3 | **NUMBER AND NUMBER SEQUENSES**  **-SEQUENCE**  -number patterns with constant difference  -number patterns with constant ratio  -sequences with neither nor constant ration  - series  assessment | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration   Discussion | * Charts | Longman mathematics(pp)book(90-100)  oxford mathematics pp book pg103-108  mathematics syllabus grade 7 |
| 4 | -**INEQUATIONS**  -Describe an open sentence  -in equations | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration   Discussion | * Charts | Longman mathematics(pp)boo(101-106)  oxford mathematics pp book pg 110-112  Mathematics syllabus grade 7 |
| 5 | -**INEQUATIONS**  **-SOLVING SIMPLE INEQUATIONS** IN ONE Variable  -showing solution on the number line  Assessment | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration   Discussion | * Charts | Longman mathematics(pp)boo(107-110)  oxford Mathematic pp book pg  Mathematic syllabus grade 7 |
| 6 | **PLANE SHAPES**  -plane shapes  -lines of symmetry  Element of a circles | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration * Discussion | * Charts * Plain papers * Cartoon boxes * scissors | Longman mathematics(pp)book(11-116)  oxford Mathematicspp book pg 118-124  Mathematics syllabus grade 7 |
| 7 | **PLANE SHAPES**  -relationship between circumference and diameter  The value of pie  -the circumference of the circle in terms of diameter  Mid –term assessment | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration   Discussion | * Charts | Longman mathematics(pp)boo()  oxford math’s pp book pg  math’s syllabus grade 7 |
| 8 | **PLANE SHAPE**  -the circumference of a circle in terms of radius  -diameter of a circle in terms of circumference | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration   Discussion | * Charts * Ruler * Measuring tape * Tins * Cartoon boxes * scissors | Longman mathematics(pp)boo(116-120)  oxford mathematics pp book pg125-128  mathematics syllabus grade 7 |
| 9 | **MEASUREMENT**  -Circumference of a circle  - formulae for calculating circumference | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration   Discussion | * Charts * String * Ruler | Longman mathematics(pp)boo(121-122)  oxford math’s pp book pg 129-131  Mathematics syllabus grade 7 |
| 10 | **MEASUREMENT**  -area of a circle  - | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration   Discussion | * Charts * Ruler * Measuring tape | Longman mathematics(pp)boo(121-124)  oxford math’s pp book pg 132-133  math syllabus grade 7 |
| 11 | Calculating radius | Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Group work * Demonstration   Discussion | * Charts   models |  |
| 12 | Mock examination | Solve mathematical challenges in everyday life through problem solving | * Demonstration   Discussion |  |  |
| 13 | Mock examination and closing |  |  |  |  |

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SUBJECT: MATHEMATICS

**GRADE**: 7 **TERM**: 3 **YEAR**: 2018

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| --- | --- | --- | --- | --- | --- |
| WEEK | TOPIC/CONTENT | GENERAL OUT COME | METHODS | L AND T RESOURCES | REFERENCE |
| 1 | **SOLID SHAPES**  -Identifying cylinders and triangular prisms  - drawing nets of cylinders and triangular prisms | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration * Discussion | Cutout of shapes  Tins  -cans  Water pipes | Longman mathematics(pp)book(125)  oxford math’s pp book pg 1136-139  math’s syllabus grade |
| 2 | **SOLID SHAPES**  -drawing or sketching cylinder and triangular prisms  -assessment exercise | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration * Discussion | Cartoon boxes  -scissors  - charts  - | Longman mathematics(pp)book(140)  oxford math’s pp book pg 140-147  math’s syllabus grade |
| 3 | STATISTICS  Collecting and presetting data  -pictograph  -pie chart  Bar charts | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration * Discussion | * Charts | Longman mathematics(pp)book()  oxford math’s pp book pg 148-  Mathematics syllabus grade |
| 4 | STATISTICS  -collect and present data on a line graph and sequence tables  - calculating mean,mode,medium | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration * Discussion | * Graph pads * -plain papers * -charts * -number cards | Longman mathematics(pp)boo(138-140,147-149)  oxford math’s pp book pg 154  math’s syllabus grade |
| 5 | STATISTICS  -Calculating averages as applied to mass, money, time, temperature and speed  - | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration * Discussion | * Charts * plain papers * -charts * -number cards * Crayons * matches | Longman mathematics(pp)book(150-152)  oxford math’s pp book pg 158-160  math’s syllabus grade |
| 6 | STATISTICS  -summary and revision  -assessment  -practicing exam equations | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in  -Mathematics. develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration * Discussion | * Charts * Cartoon boxes * Scissors * Plain papers | Longman mathematics(pp)book()  oxford Mathematicspp book pg 161-168  math’s syllabus grade |
| 7 | Revision and practising exam questions | Solve mathematical challenges in everyday life through problem solving  -Develop algebraic, geometry and arithmetic skills in Mathematics. -Develop mathematical concepts on shapes and diagrams | * Discussion * Group work * Demonstration * Discussion | * Charts | Longman mathematics(pp )book  oxford Mathematics pp book pg  Mathematics syllabus grade |
| 8 | Final Exams |  |  |  |  |