**PRESIDENT’S OFFICE, REGIONAL ADMINISTRATION AND LOCAL GOVERNMENT**

**SONGEA DC**

**SCHEME OF WORK**

 **Name of teacher: JACKSON ROBERT ISANGI Name of School: MUHUKURU SECONDARY SCHOOL**

 **Year: 2025 Term: 1 & 2**

 **Class/Stream: FORM ONE Subject: BASIC MATHEMATICS**

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| **MAIN COMPETENCE** | **SPECIFIC COMPETENCE** | **TEACHING ACTIVITIES** | **MONTH** | **WEEK** | **PERIODS** | **REFERENCE** | **TEACHING/LEARNING TOOLS** | **ASSESSMENT TOOLS** | **COMMENTS** |
| **ORIENTATION COURSE(2ND WEEK OF JANUARY TO 3RD WEEK OF FEBRUARY)** |
| **NUMBERS**  | 1.0Base ten numerals | Write and read numbers in words and numerals up to one billion, to identify the place values of each digit in base ten numeration | **FEBRUARY****Marh** | 4TH | 6 | TIE (2009) Secondary basic mathematics for secondary schools book one DSM; Educational publishers LTD |  Number cardsNumber charts | ExerciseHomeworkTestClasswork  |  |
| 1.1Even, odd and prime number | Discussing with students on the types of numbers i.e. whole, natural, even, odd and prime numbers | **MARCH** | 1ST | 6 | Number cardsNumber chartsAbacus | Exercise |  |
| 1.2 operation with whole numbers | Discussing with student on the operation on whole numbers To lead students in the discussion of word problem on whole numbers | 2ND  | 6 | Abacus Number cardsNumber chartsAbacus | Homework |  |
| 1.3Factors and multiples of numbers | To prepare students in the discussion of finding factors of numbers and using it to find LCM and GCF of numbers | Factor treeFactor chart | Test |  |
| 1.4Integers | Discussing with student on how to find some operation on whole numbers using number line anddoing some mixed operation on integers | 3RD | 12 | Factor treeFactor chart | Classwork |  |
| **MID-TERM ASSESSMENT (4TH WEEK OF MARCH)****MID-TERM BREAK (31/03/2023 - 11/04/2023)** |
| **FRACTIONS** | 2.0Proper, improper and mixed numbers | To prepare students to brainstorm on meaning of fractionDiscussing with student on proper, improper and mixed numbers. | **APRIL** | 2NDTO3RD | 6 |  | OrangesPaperCards, Knife,RazorbladePair of scissors | Quiz |  |
| 2.1Comparison of fraction | prepare the students to find comparison of fraction and representing fraction on a number line | 4TH | 6 | TIE (2009) Secondary basic mathematics for secondary schools book one DSM; Educational publishers LTD publishers LTD TIE (2009) Secondary basic mathematics for secondary schools book one DSM; Educational publishers LTD  | Number lineManila papersCuisenaire rod | Exercise |  |
| 2.2: Operation on fractions | Discussing with students on how to find some operation on fractions and mixed operation on fractions  | **MAY** | 1ST | 6 | Factor treeFactor chartNumber lineManila papers | Homework |  |
| 2:3: World problem on fraction | Discussing with students on how to find solution on world problems on fraction | 2ND | 6 | Manila paper | Test |  |
| **3.0 DECIMAL AND PERCENTAGE** | 3.0 Decimals | To prepare students to brainstorm on meaning of decimals andDiscussing on how to change fractions into decimals and decimals into fractions.Discussing with students on how to change repeating decimal into fractions | 3RD | 6 | Shillings, cents | Classwork |  |
| **TERMINAL ASSESSMENT (4TH WEEK OF MAY)****FIRST TERM BREAK (31/05/2023 - 03/07/2023)****UMISSETA SPORTS COMPETITIONS (15/06/2023 – 26/06/2023)** |
|  | 3.1operation on decimals | Discussing with students on how to find some operation on decimals and word problems on decimals | **JULY** | 1ST | 6 |  | Shillings, cents | Exercise |  |
| 3.2percentages | To prepare students to brainstorm on meaning of percentageDiscussing with students on how to change fractions into percentage and percentage into fraction and decimalsDiscussing with students on application of percentage  | 2ND | 6 | TIE (2009) Secondary basic mathematics for secondary schools book one DSM; Educational publishers LTD publishers LTD | Shillings, cents | Exercise |  |
| **4.0 UNITS** | 4.0Units of length | Discussing with students on how to change one unit of length into another unit.Demonstrating how to do some operation on units of length (+,- ÷ and ×) | 3RD | 3 | Shillings, cents | Homework |  |
| 4.1Units of mass | Discussing with students onthe meaning of units of mass and converting one unit of mass into another unit and doing some operation on units of mass | 3 | Shillings, cents | Test |  |
| 4.2Units of time | Discussing with students on the different types of units of timeand reading time using 12hours and 24hours Demonstrating how to change one unit of time to another | 4TH | 3 | TIE (2009) Secondary basic mathematics for secondary schools book two DSM; Educational publishers LTD | ClocksClock facesTimetables12hour clock24hour clock | Exercise |  |
| 4.3Units of capacity | Discussing with students onThe uses of liter in daily life and solving problems involving units of capacity.Discussing with students on conversion of units of capacity to another units | 3 | Container with capacity in liter | Homework |  |
| **APPROXIMATION** | 5.0Rounding off numbers | prepare the students to the discussion on how to rounding off numberse.g 2.645 to 2dp = 2.64 2.635 to 2dp = 2.64(old and even criteria for 5) | **AUGUST** | 1ST | 2 | NumberChartsNumber patternsMarker pens | Test |  |
| 5.1Approximation in calculation | Discussing with students on how to do approximation in calculation. | 2 | TIE (2009) Secondary basic mathematics for secondary schools book one DSM; Educational publishers LTD publishers LTD  | Number chartsManila paperMarker pens | Classwork |
| 5.2Significant figures | Discussing with students on the meaning of significant figure, writing numbers to the required significant figure | 2 | Number chartsManila paperMarker pensMathematical set | Exercise |
| **b11 INTROD** | 5.3Decimal places | Discussing with students on the meaning of decimal place and how to write a number to the required decimal place and solving related problems in approximation | 2ND | 6 | Number chartsManila paperMarker pensMathematical set | Homework |  |
| 6.0Points and lines | Discussing with students on how to draw lines and to identify line segment | Mathematical set, Chalk board ruler | Test |  |
| **INTRODUCTION TO GEOMETRY** | 6.1An angle and types of angles | Discussing with students on how to measure angles using protractors | 3RD | 2 | Manila paperMarker pensM/instrument | Classwork |  |
| 6.2M/ angles using Protractor | Discussing with students on how to construct angles and naming the types of angles | 10 | ProtractorM/ instrumentmanila | Exercise |
| 6.3Perpendicular lines | 1. Discussing with students on how to make perpendicular bisect of angles
 | ProtractorMathematical instrument | Homework |
| **MID-TERM ASSESSMENT (4TH WEEK OF AUGUST)****MID-TERM BREAK (01/09/2023 - 18/09/2023)** |
|  | 6.4Construction of angle 600 | Discussing with students on how to construct angles 600 using protractor | **SEPTEMBER** | 3RD | 3 | TIE (2009) Secondary basic mathematics for secondary schools book one DSM; Educational publishers LTD publishers LTD | ProtractorMathematical instrument | Test |  |
| 6.5Parallel lines | Discussing with students on how to draw parallel lines and naming the angles such as vertical opposite, corresponding angles, alternative angles, complementary and supplementary angles etc. | ProtractorMathematical instrumentManila | Classwork |
|  | 6.6Polygon and polygon figure | Discussing with students on different types of polygons such as pentagon, hexagon, heptagon octagon also Discussing on properties of polygons e.g. square, rectangle, parallelogram etc. | 4TH | 3 | ProtractorMathematical instrumentmanila | Exercise |  |
| 6.7Circle | Discussing with students on meaning of an arc, segment, sector, chord, diameter, radius etc. | 3 |  | ProtractorMathematical instrumentmanila | Quiz  |  |
| 7.1Equation of a straight line | prepare the student to the discussion of forming equation of a straight line Given two points, finding equation of the line given slope and a point | **OCTOBER** | 1ST | 2 | TIE (2009) Secondary basic mathematics for secondary schools book one DSM; Educational publishers LTD publishers LTD | Manila paperGraph paperGeo-boardRubber bandGraph paper | Exercise |  |
| 7.2Graphs of a straight line | prepare the student to the discussion of drawing graphs of equation of straight line given equation. | 2ND TO3RD | 3 | Graph paperGeo-boardRubber bandGraph paper | Homework |  |
| 7.3Solving linear simultaneous equation graphically. | Discussing with students on how to solve linear simultaneous equation graphically by first drawing graphs and finding point of intersect of the two lines | 3 | Graph paperGeo-boardRubber bandGraph paper | Test |  |
|  **RATIO, PROFIT AND LOSS** | 8.0ratio | Discussing with students on the meaning of ratiosDiscussing with students on how to express ratios in its lowest term and dividing quantity into two or more parts which are in ratios example a/(a+b) | 4TH | 2 | MoneyReal objectPhysical item | Classwork |  |
| 8.1Profit and loss | Discussing with students on how to find profit and loss of transactions and how to find percentage loss and also percentage profit  | **NOVEMBER** | 1ST | 2 | TIE (2009) Secondary basic mathematics for secondary schools book one DSM; Educational publishers LTD publishers LTD | Work sheetMoney | Exercise |
| 8.2Simple interest | Discussing with students on how to find simple interest, principal, amount, time or rate on the given transaction. | 2 | Work sheet MoneyBank statement | Homework |
|  **PERIMETER AND AREA** | 9.0Perimeter |  | 2ND | 1 | TrianglesQuadrilateralsTape measureRuler | Test |  |
| Discussing with students on how to find the perimeter of triangle, rectangle, pentagonand other polygons |
| 9.1Circumference | Discussing with students on the meaning of circumference of circle and finding the circumference, radius or diameter of the circle | 3 | Circular objectRope, threadRulerWork sheet | Exercise |
| 9.2Area | Discussing with students on the meaning of area; and how to find the area of rectangle, square, circle, triangle, parallelogram and trapezium | 5  | Manila paperMarker pensGeo-board | Homework |
|  | 10.0Rational numbers | Discussing with students onThe meaning of rational numbers and how to representing rational numbers on a number line | 3RD | 4 | Number lineManila paper | Test |  |
| **10 REAL NUMBERS** | 10.1 Operation on rational numbers | Discussing with students on Operation on rational numbers | 4TH | 4 | Number lineManila paperWork sheet | Classwork |  |
| 10.2Irrational numbers | Discussing with students onThe meaning of irrational numbers and how to represent on a number line | 2 | ChartsNumber lineManila paperWork sheet | Exercise |
| 10.3 Representation of real numbers on a number line |  Discussing with students on how to represent of real on a number line prepare the students to find absolute value of a real number, showing example how to solve absolute value. | 2 |  ChartsNumber lineManila paperWork sheet | Quiz Assignment |
| **ANNUAL ASSESSMENT (1ST WEEK OF DECEMBER)****END OF YEAR BREAK (07/12/2023)** |