SCHEME OF WORK

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TEACHER’S NAME: KISASILA MASOTA LUDELYA SUBJECT:MATHEMATICS YEAR: 2025 TERM: 1&2 CLASS: FORM ONE

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| MAIN COMPENCE | SPECIFIC COMPETENCE | LEARNING ACTIVITIES | TEACHING ACTIVITIES | MONTH | WEEK | PERIOD | REFERENCE | TEACHING MATERIALS | ASSESSMENT | REMARKS |
|  | ORIENTATION COURSE 3RD & 4TH WEEKS OF JANUARY AND 1ST, 2ND, 3RD & 4TH WEEEKS OF FEBRUARY |
| Demonstrate mastery of mathematical language | Use numerical skills in different contexts | Explain the basic concepts of mathematics (meaning of mathematics, branches of mathematics, relationship of mathematics with other subjects, importance of mathematics) | Guide students to discuss meaning of mathematics and branches of mathematics | MARCH | 1st2nd&3rd | 2 | TIE (2023), Basic mathematics for secondary school student’s book form one, pg 1-5 | Charts of relationships between mathematics and other fields, real life objects, math games and apps, educational channels | Quiz. |  |
| Face-face questions |
| Guide students to brainstorm on importance of mathematics in daily life | 2 |
| Guide students to explain the relationship of mathematics with other disciplines by using jigsaw | 2 | Tests |
| Explain the concept of rational, irreational, and real numbers | Provide students with visual aids like bars/strips or circles and guide them to cut the aids in small equal parts. Relate their responses to the meaning of fractions | 3 | TIE (2023), Basic mathematics for secondary school student’s book form one, pg 7-22 | Calculator, charts of real numbers, ruler, tape measure, graph papers, number line chart | Quiz. |
| Organize students in manageable groups and assign each group word problems that require students to apply their knowledge of fractions, decimals and percentages to real word scenarios. Guide them to present the results and relate their findings with rational numbers | 4 | Assignment. |
| Guide students to relate real numbers to real-life situations, for example, money and measurement | 2 | Exercise |

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|  |  | Convert repeating/recurring decimals into fractions and vice versa | Provide students with examples of decimals and guide them to identify repeating/recurring decimals, and convert repeating/ recurring decimals into fractions and vice versa and share with the rest of the class through presentations | MARCH | 4th  | 2 |  | Calculator, charts of real numbers, ruler, tape measure, graph papers, number line chart | Quiz. |  |
| Face-face questions |
| Represent rational numbers on a number line | Organize students in manageable groups to draw number line.Guide them to discuss steps of representing rational numbers on a number line and share their results with the rest of the class through representation | 3 |
| Guide students to suggest real-life problems involving rational numbers. Ask them to locate points on the number line and perform calculations based on given scenario | APRIL | 1st | 2 | Tests |
| Explain the concept of innequalities and absolute values of real numbers  | Guide students’ visual aids such as number line charts and graphing tools to explore the basic concepts of inequalities and absolute values of real numbers | 2 | TIE (2023), Basic mathematics for secondary school student’s book form one, pg 24-33 | Calculator, charts of real numbers, ruler, tape measure, graph papers, number line chart | Quiz. |

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|  |  | Describe the importance of numbers in real-life situations | Guide students to describe the importance of numbers and apply numbers in real life situations  | APRIL |  | 1 |  | Calculator, charts of real numbers, ruler, tape measure, graph papers, number line chart | Quiz.Face-face questions |  |
| MIDTERM TEST & SHORT MIDTERM BREAK | 2nd & 3rd |  |
|  | Use ratios and proportions in daily life  | Explain the concept of ratios and proportions in daily life | Organize students in manageable groups to discuss and come up with real-life scenarios involving the concept of ratios and proportions. Share with the rest of the class through presentations | 4th | 4 | TIE (2023), Basic mathematics for secondary school student’s book form one, pg 61-66 | Money, charts of real-life scenarios, interest calculators, and games real objects, and bank statements |  |  |
| Guide students to explore how other subjects relate to concept of ratios and proportions by using a jig saw methodology | 1 | Tests |
| Solve ratio and proportion problems | Guide students to solve ratio and proportion problems and share the results with classmates | MAY | 1st | 5 | Calculator, charts of real numbers, ruler, tape measure, graph papers, number line chart | Quiz. |

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| Demonstrate mastery of basic concepts in geometry and algebra | Use geometry, approximations, relations and functions in various contexts | Explain the concept of approximations (rounding off, significant figures and decimal places) | In manageable groups guide students to explore the concept of approximations and share their findings with other groups | MAY | 2nd | 2 | TIE (2023), Basic mathematics for secondary school student’s book form one, pg 40-53 | Calculator, charts of real numbers, ruler, tape measure, graph papers, number line chart | Quiz. |  |
| Face-face questions |
| By using Think-ink-pairshare guide students to pair up to discuss their ideas, thereafter, some of the pairs share their ideas with the whole class | 3 |
| Round off numbers and estimate values of expressions | Group discussion: In manageable groups, guide students to round off numbers and estimate values of expressions and share their findings | 3rd | 2 | Tests |
| Approximate numbers to the required significant figures and decimal places | By using a jigsaw guide student use real-life examples to approximate numbers to the required significant figures and decimal places  | 1 | Calculator, charts of real numbers, ruler, tape measure, graph papers, number line chart | Quiz. |
| By problem solving technique asses the accuracy of answers provided by students when approximating numbers and provide them with feedback | 2 |  |  |  |

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|  TERMINAL  | MAY | 4th  |  EXAMINATION |
|  TERMINAL | JUNE | 1st2nd3rd4th&1stOFJULY |  BREAK |
|  |  | Use approximations in computations and measurements of quantities in various contexts | Organize students in manageable groups to discover the use of approximations in computations and measurements of quantities in various context | JULY | 2nd | 3 |  | Beam balance, mathematical software such as MATLAB, and GeoGebra, real objects, Algebra animations |  |  |
| Use algebra and matrices in problem solving | Explore the basic tenets of algebra (algebraic expressions and equations, linear simultaneous equations of two unknowns, inequalities in one unknown) | Organize students in manageable groups, guide them to discuss algebraic expressions and equations  | 2 | TIE (2023), Basic mathematics for secondary school student’s book form one, pg 72-102 | Tests |
| Provides learners with visual aids such as diagrams, charts, and graphs to illustrate the graphs of linear equations  | 3rd | 5 | Quiz. |

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|  |  | Use algebraic expressions to model situations (word problems into algebraic expressions and equations) | Incorporate word problems that require students to translate verbal descriptions into algebraic expressions and equations.Guide them to identify key words that indicate mathematical operations | JULYAUGUST | 4th&1st | 2 |  | Beam balance, mathematical software such as MATLAB, and GeoGebra, real objects, Algebra animations | Quiz. |  |
| Face-face questions |
| Solve simultaneous equations using substitution and elimination methods | Guide students in pairs to solve simultaneous equations by using substitution and elimination methods.Thereafter, allow some of the pairs to share their results with the whole class | 8 |
| Solve inequalities in one unknown | In manageable groups, guide the students to solve inequalities in one unknown and present results for common understanding | 2nd&3rd | 3 | Number line chart, graphing calculator, real objects | Tests |
| Demonstrate mastery of basic concepts in coordinate geometry, trigonometry, circles, vectors, probability and statistics | Use basic coordinate geometry, trigonometry and vectors skills in daily life | Explore the basic tenets of coordinate geometry (gradient and equations of straight line, graphs of a linear equations) | Guide students to use visual aids, such as graphs and coordinate planes to establish the relationship between coordinates and geometrical shapes | 4 | TIE (2023), Basic mathematics for secondary school student’s book form one, pg 115-155 | Calculator, charts of real numbers, ruler, tape measure, graph papers, number line chart | Quiz. |
| Find the gradient/ slope of a line | In manageable groups, guide the students to determine the slope of a given line | 3 | Mathematical software such as MATLAB, and GeoGebra, Maple, Mathematica, graph papers | Exercise  |  |

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MATHEMATICS

MWL. MASOUD HAMISI KIGUMI

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|  SECOND MIDTERM  | AUGUST | 4th  |  TESTS |
|  SHORT MID-TERM | SEPTEMBER | 1st&2nd |  BREAK |
|  |  | Determine the equation of a straight line and draw its graph | Utilize visual aids like diagrams and charts to illustrate the concept of a straight line visually. Provide examples of different types of straight lines and their corresponding equations and draw their graphs | 3rd | 5 |  | Beam balance, mathematical software such as MATLAB, and GeoGebra, real objects, Algebra animations |  |  |
| Solve linear simultaneous equations graphically | Guide students to use visual aids, such as graphs and coordinate planes, graph papers or interactive whiteboard to plot points, draw lines, and interpret the graph | 4th | 5 | Tests |
| In manageable groups, guide the students to solve linear simultaneous equations graphically  | Quiz. |

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|  |  | Use mathematical software to solve and draw graphs of simultaneous equations | Guide students to use mathematical software such as Excel, GeoGebra, Mathematica, MATLAB to solve and draw graphs of simultaneous equations | OCTOBER | 1st | 5 |  | Beam balance, mathematical software such as MATLAB, and GeoGebra, real objects, Algebra animations | Quiz. |  |
| In manageable groups, provide students with plenty examples and exercise to solve and draw graphs of simultaneous equations  | 2nd | 5 | Face-face questions |
|  REVISION |  | 3rd&3rd |  |
|  REVISION | NOV | 1st2nd3rd |  EXERCISE |
| ANNUAL | 4th | EXAMINATION |
| ANNUAL | DEC | 1st2nd3rd4th |  BREAK |

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