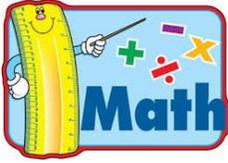


First Form Mathematics Syllabus



Term I

Set Theory: Definition of a set; element or member of a set; set representation; types of sets (finite, infinite and null); equal and equivalent sets; union, intersection and complement; and Venn diagrams and their use in simple logical problems (two sets only). Recognize the subsets of a set.

Number Theory: Sets of numbers (natural numbers, whole numbers, integers, rational and irrational numbers, and real numbers); sequences; arranging numbers in order of size; LCM and HCF; odd and even numbers; prime and composite numbers.

Computation I: Applying the operations of adding, subtracting, multiplying and dividing to whole numbers, decimals and fractions. The rule of BODMAS (brackets, of, division, multiplication, addition and subtraction).

Algebra I: Directed numbers (number line); substitution; collecting like terms; and simplifying expressions using the basic mathematical operations — addition, subtraction, multiplication and division (including brackets).

Geometry I: Measuring and drawing angles, and constructing triangles (SAS, ASA, SSS).

Consumer Arithmetic I: Percentages; profit and loss; discount and sales tax.

Term II

Computation II: Approximation; rounding off to the nearest whole number, ten (tenth), hundred (hundredth), etc, and rounding to decimal places. Ratio and proportion.

Algebra II: Indices; equations and inequations, and word problems.

Geometry II: The different types of angles, triangles and quadrilaterals and problems associated with angles, triangles and quadrilaterals.

Consumer Arithmetic II: Shopping bills; hire purchase; and simple interest.

Relations, Functions and Graphs: Relations (recognise and describe a relation as a set of ordered pairs), mappings (arrow diagrams), and functions (one-to-one and many-to-one). Coordinates and graphs of simple linear functions. Interpret information on travel graphs.

Term III

Measurement: Measurement of length, area, volume, mass and time. Perimeter & area of triangles, quadrilaterals and combination shapes. Cuboids; calculating the total length of the edges, total surface area, and volume. Calculating speed, distance and time.

Statistics: Definition of statistics. Collecting data using a tally chart and organizing it into a frequency table. Analysing and interpreting data, calculating averages and determining the range of a set of data. Illustrating data by means of pictographs, bar charts, pie charts and line graphs.

Revision: Past examination papers.