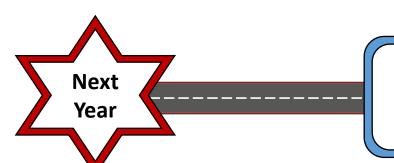
Big Picture – Year 10 Foundation Overview Mathematics Department





Factors, Powers and Roots

Factors, multiples and primes, prime factors, highest common factor, lowest common multiple, positive integer powers and roots.

UNIT 7

UNIT 6

Circles and Constructions

Circle properties, circumference and area, construct triangles, ruler and compass constructions, loci.

Ratio and Proportion

Describe problems using percentages and fractions, simplify ratio, divide in a ratio, scale factors, scale diagrams, percentage change.

Equations and Inequalities

Solve linear and quadratic equations, simultaneous equations, solve equations using a graph, solve inequalities and represent solutions.

Measures and Accuracy

Rounding, approximation, error intervals, units of length, mass, volume, time and area.

UNIT 5

UNIT 4

Working in 2D

Draw and measure accurately, units of length and area, bearings, maps and scale drawings, area, transformations.

Probability

Experimental and theoretical probability, expected frequency, mutually exclusive events.

Formulae and Functions

Substitution, rearranging formulae, identify inequalities, expressions, equations and identities, expand double brackets, factorising quadratics.

Fractions, Decimals & Percentages

Convert and compare fractions, decimals and percentages, fractions and percentages of an amount, four operations with fractions.

UNIT 3

UNIT 2

Angles and Polygons

Angle properties on lines and in polygons, congruency and similarity.

Handling Data 1

Frequency tables, two-way tables, pictograms, bar charts, pie charts, averages and range.

Expressions

Algebraic notation and vocabulary, substitution, simplifying expressions, laws of indices, expanding brackets, factorising.

Calculations 1

Place value with decimals, ordering numbers, rounding, four operations with positive and negative numbers, order of operations.

