

Programme of Study 2024- 2025



Subject: Mathematics
Year 8

Autumn 1

Unit 1: Percentages, decimals and fractions: Fractions and decimals, Equivalent proportions, Writing percentages, Percentages of amounts

Unit 2: Money: Value for money, calculating with money

Unit 3: Index Laws: Index rules with positive indices, Index rules with negative indices, Simplifying expressions using index laws, Simplifying algebraic fractions by cancelling common factors

Unit 4: Expressions and equations: Algebraic powers, Expressions and brackets, Factorising expressions, One-step equations, Two-step equations, Expanding double brackets

Autumn 2

Unit 5: Sequences Term-to-term rules for numerical sequences, Term-to-term rules for sequences of patterns, Substituting into position-to-term rules, Position-to-term rules for arithmetic sequences, Position-to-term rules for sequences of patterns

Unit 6: Ratio and Scale Drawing: Writing and simplifying ratios, Writing ratios in the form 1:n, Converting between ratios, fractions and percentages, Using equivalent ratios to find unknown amounts, Sharing amounts in a given ratio, Drawing and interpreting scale diagrams

Spring 1

Unit 7: Rounding: Rounding integers using significant figures, Rounding decimals using significant figures, Estimating calculations

Unit 8: Rounding (Significant figures): Rounding integers using significant figures, Rounding decimals using significant figures, Estimating calculations

Unit 9: Coordinates: Plotting points, Midpoint

Unit 10: Area and Circumference: Area of Parallelogram, Trapezium, Units of Area Conversion, Parts of a Circle, Circumference, Area of Circles

Spring 2

Unit 11: Standard form: Convert numbers to standard form and vice versa to include positive and negative indices

Unit 12: Venn Diagrams: Venn diagrams, Probabilities from Venn diagrams, Finding the HCF and LCM using prime factor decomposition

Unit 13: 3D Shapes, Surface Area and Volume: Properties of 3D shapes, Nets of 3D shapes, Surface area from a net, Surface area of cubes and cuboids, Surface area of prisms, Volume of cubes and cuboids, Volume of prisms

Summer 1

Unit 14: Linear Graphs: Plotting horizontal, vertical and diagonal lines, Plotting straight line graphs, Finding equations of straight line graphs

Junior Maths Challenge (for selected students/students who wish to participate)

Unit 15: Transformations: Translation, Reflection

Unit 16: Angles: Angles in quadrilaterals, Combining angle facts, Angles on parallel lines, Using quadrilateral properties to find angles, Angles in polygons

Unit 17: Statistical diagrams: Pie charts, Line Graphs, Stem and Leaf Diagrams
Unit 18: Inequalities: Linear inequalities, Solving Linear Inequalities