

Programme of Study 2024- 2025



Subject: Mathematics

Year 10S

Autumn 1

Unit 1: Fractions and percentages: Working with fractions, Operations with fractions, Fractions and decimals, Fractions and percentages, Calculating percentages

Unit 2: Algebra: Algebraic Expressions, simplifying expressions, Substitution, Formulae, Expanding brackets, Factorising, Using expressions and formulae

Autumn 2

Unit 3: Graphs, tables and charts: Frequency tables, Two-way tables, Representing data, Time series, Stem and leaf diagrams, Pie charts

Unit 4: Angles: Properties of shapes, Angles in parallel lines, Angles in triangles, Exterior and Interior Angles

Spring 1

Unit 5: Averages and Range: Mean, mode, median and range, Types of average, Estimating the mean, Sampling

Unit 6: Equations, inequalities and sequences: Solving Equations, Solving Equations with brackets, Introducing inequalities, Using formulae, Generating sequences, Using the nth term of a sequence

Spring 2

Unit 7: Perimeter, area and volume: Rectangles, parallelograms and triangles, Trapezia and changing units, Area of compound shapes, Surface area of 3D solids, Volume of prisms

Unit 8: Graphs: Coordinates, Linear graphs, Gradient, $Y = mx + c$, Real-life graphs, Distance-time graphs

Summer 1

Unit 9: Transformations: Translation, Reflection, Rotation, Enlargement, Describing enlargements, Combining transformations

Unit 10: Ratio and proportion: Using ratios, Ratios and measures, Comparing using ratios, Using proportion, Proportion and graphs, Proportion problems

Summer 2

Unit 11: Right-angled triangles: Pythagoras' Theorem, Trigonometry: Sine, cosine and tangent ratios, Finding lengths and angles

Unit 12: Constructions: loci and bearings, 3D solids, Plans and elevations, Accurate drawings, Scale drawings and maps, Constructions, Loci and regions, Bearings