



Topic Overview – Mathematics 2023-2024

| | AUTUMN 1 | AUTUMN 2 | SPRING 1 | SPRING 2 | SUMMER 1 | SUMMER 2 |
|--------|--|---|--|---|--|--|
| YEAR 7 | Place Value Properties of Number | Arithmetic Procedures with Integers and Decimals Estimation and Rounding | Expressions and Equations | Averages from a List Arithmetic Procedures with Fractions | Understanding Multiplicative Relationships: Fractions and Ratio | Perimeter and Area Plotting Coordinates |
| YEAR 8 | Plotting Coordinates Solving Linear Equations Transformations | Understanding Multiplicative Relationships: Percentages and Proportionality | Sequences Graphical Representations of Linear Relationships | Standard Form Statistical Representations, Measures and Analysis | Constructions and Nets Perimeter, Area and Volume | Angle Reasoning Basic Probability |
| YEAR 9 | Straight Line Graphs Forming and Solving Equations Testing Conjectures | Three Dimensional Shapes Constructions and Congruency | Numbers Using Percentages Maths and Money | Deduction Rotation and Translation Pythagoras' Theorem | Enlargement and Similarity Solving Ratio and Proportion Problems Rates | Probability Algebraic Representation |

| | AUTUMN 1 | AUTUMN 2 | SPRING 1 | SPRING 2 | SUMMER 1 | SUMMER 2 |
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| YEAR 10 HIGHER TIER | FDP Equivalence Application of Percentages Statistics and Sampling Averages and Range Transformations (Rotations and Translations) | Transformations (Reflections, Enlargements and Combinations) Applications of Ratio Proportion Perimeter and Area – Regular Shapes and Compound | 3D Forms and Volume Circles, Cylinders, Cones and Spheres Independent Probability Dependent Probability | Sequences Tables Charts and Graphs Pie Charts | Plans and Elevations Constructions, Loci and Bearings Pythagoras Theorem and Trigonometry in Right-Angled Triangles | Scatter Graphs and Correlation Inequalities Multiplicative Reasoning |
| YEAR 10 FOUNDATION TIER | FDP Equivalence Application of Percentages Statistics and Sampling Averages and Range | Transformations (Rotations and Translations) Transformations (Reflections, Enlargements and Combinations) Applications of Ratio | Proportion Perimeter and Area – Regular Shapes and Compound 3D Forms and Volume | Circles, Cylinders, Cones and Spheres Independent Probability Dependent Probability | Sequences Tables Charts and Graphs | Pie Charts Plans and Elevations |

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|------------------------|--|--|---|---|----------------------------|-------------------|
| YEAR 11 HIGHER TIER | Pythagoras' Theorem | Multiplicative reasoning | Cumulative frequency, box plots and histograms | Vectors and geometric proof | Revision and consolidation | GCSE examinations |
| | Trigonometry in right-angled triangles | Similarity and congruence in 2D and 3D | Quadratics, expanding more than two brackets, sketching graphs, graphs of circles, cubes and quadratics | Reciprocal and exponential graphs; Gradient and area under graphs | | |
| | Quadratic, cubic and other graphs | Graphs of trigonometric functions | Circle theorems | Direct and inverse proportion | | |
| | Constructions, loci and bearings | Further trigonometry | Circle geometry | | | |
| | Solving quadratic and simultaneous equations | | Changing the subject, algebraic fractions, rationalising surds, proof | | | |
| | Inequalities | | | | | |

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| YEAR 11 FOUNDATION TIER | <p>Scatter graphs</p> <p>Inequalities</p> <p>Real-life graphs</p> <p>Pythagoras' Theorem and trigonometry in right-angled triangles.</p> | <p>Multiplicative reasoning</p> <p>Constructions, loci and bearings</p> <p>Quadratic equations: graphs</p> | <p>Similarity and congruence in 2D</p> <p>Vectors</p> <p>Rearranging equations, graphs of cubic and reciprocal functions</p> <p>Simultaneous equations</p> | <p>Revision and consolidation</p> | <p>Revision and consolidation</p> | <p>GCSE Examinations</p> |