

## Maths Curriculum Overview

### Intent

We believe that students deserve a creative and ambitious Mathematics curriculum, rich in skills and knowledge, which prepares them well for everyday life and future employment. Our mathematics curriculum will enable students to become fluent in the fundamentals of mathematics through varied and frequent practice with increasingly complex problems over time. This will enable them to develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately. We feel it is necessary for students to still work towards their GCSE qualification, using their prior knowledge and their attainment levels to allow them to access work that challenges them at an appropriate level for the individual student.

	<b><u>Key Stage 3</u></b>
Half Term 1	<p><b>Key Themes:</b> Number, Geometry</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b>            Time &amp; Units of Measurement, The Number System, Rounding, Basic Geometry Conventions, Notation &amp; Terms.</p>
Half Term 2	<p><b>Key Themes:</b> Number, Ratio &amp; Proportion, Algebra</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b>            Addition &amp; Subtraction, Coordinate Geometry, Multiplication &amp; Division, Powers &amp; BIDMAS, Calculating with Negatives, Introduction to Algebra.</p>
Half Term 3	<p><b>Key Theme:</b> Geometry, Number, Algebra</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b>            Factors &amp; Primes, Perimeter, Multiples, Area, Averages, Linear Graphs.</p>

Half Term 4	<p><b>Key Theme:</b> Number, Geometry, Ratio &amp; Proportion</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b> Range, Percentages, Angle Properties of Lines, Arithmetic Sequences, Properties of 2D shapes.</p>
Half Term 5	<p><b>Key Theme:</b> Number, Geometry</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b> Properties of 3D Shapes, Ratio, Indices and Standard Form, Metric and Imperial Units.</p>
Half Term 6	<p><b>Key Theme:</b> Probability, Number, Algebra, Geometry, Ratio and Proportion, Statistics</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b> Relative Frequency, Revision of All Schemes.</p>

<u>Key Stage 4</u>	
Half Term 1	<p><b>Key Themes:</b> Number, Geometry</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b> Time &amp; Units of Measurement, The Number System, Rounding, Basic Geometry Conventions, Notation &amp; Terms, Addition &amp; Subtraction, Coordinate Geometry, Multiplication &amp; Division.</p>
Half Term 2	<p><b>Key Themes:</b> Geometry, Number, Ratio &amp; Proportion, Algebra</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b> Powers &amp; BIDMAS, Calculating with Negatives, Introduction to Algebra, Factors &amp; Primes, Perimeter, Multiples, Area.</p>
Half Term 3	<p><b>Key Theme:</b> Geometry, Number, Algebra</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b> Averages, Linear Graphs, Range, Percentages, Angle Properties of Lines, Arithmetic Sequences, Properties of 2D shapes, Properties of 3D Shapes, Ratio.</p>

	<p><b>Extension Subject Content (Higher/Strong Foundation):</b> Indices and Standard Form, Quadratics, Metric and Imperial Units, Pythagoras Theorem.</p>
Half Term 4	<p><b>Key Theme:</b> Number, Geometry, Ratio &amp; Proportion, Probability</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b> Time &amp; Units of Measurement, The Number System, Rounding, Basic Geometry Conventions, Notation &amp; Terms, Addition &amp; Subtraction, Coordinate Geometry, Multiplication &amp; Division.</p> <p><b>Extension Subject Content (Higher/Strong Foundation):</b> Proportion, Congruence, Inequalities, Similarity, Rounding and Bounds, Compound Units, Probability Diagrams.</p>
Half Term 5	<p><b>Key Theme:</b> Algebra, Geometry, Data, Number</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b> Powers &amp; BIDMAS, Calculating with Negatives, Introduction to Algebra, Factors &amp; Primes, Perimeter, Multiples, Area. Revision of All Schemes (if appropriate to student e.g. in Year 11).</p> <p><b>Extension Subject Content (Higher/Strong Foundation):</b> Simultaneous Equations, Constructions, Other Sequences, Vectors.</p>
Half Term 6	<p><b>Key Theme:</b> Number, Algebra, Geometry, Ratio and Proportion, Statistics</p> <p><b>Key Concepts, Knowledge &amp; Skills (Composites):</b> Averages, Linear Graphs, Range, Percentages, Angle Properties of Lines, Arithmetic Sequences, Properties of 2D shapes, Properties of 3D Shapes, Ratio, Revision of All Schemes.</p> <p><b>Extension Subject Content (Higher/Strong Foundation):</b> Scatter Graphs, Trigonometry, Ratio Revisited.</p>