

## Maths Curriculum Topic Overview

### Key Stage 3

Year Group	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
<b>Year 7</b>	<ul style="list-style-type: none"> <li>• Probability</li> <li>• Factors, Multiples and Primes</li> <li>• Rounding and calculator skills</li> <li>• Fractions – simplifying, adding and subtracting</li> </ul>	<ul style="list-style-type: none"> <li>• Directed Numbers</li> <li>• Manipulating Algebra</li> </ul>	<ul style="list-style-type: none"> <li>• Exploring Sequences</li> <li>• Fractions – multiplying and dividing</li> </ul>	<ul style="list-style-type: none"> <li>• Decimals</li> <li>• Proportional Reasoning</li> <li>• Ratios</li> </ul>	<ul style="list-style-type: none"> <li>• Units of Measure</li> <li>• Properties of Shapes</li> <li>• Perimeter and Area</li> </ul>	<ul style="list-style-type: none"> <li>• Circles and Circumference</li> <li>• Coordinate Grids and Horizontal/Vertical Line Graphs</li> </ul>
<b>Year 8</b>	<ul style="list-style-type: none"> <li>• Drawing and Measuring Angles</li> <li>• Interpreting and Comparing Data</li> <li>• Averages</li> <li>• Scatter Graphs</li> </ul>	<ul style="list-style-type: none"> <li>• Solving Linear Equations</li> <li>• Sequences – Nth Term</li> </ul>	<ul style="list-style-type: none"> <li>• Graphs of Linear Functions (<math>y = mx + c</math>)</li> <li>• Using Percentages</li> </ul>	<ul style="list-style-type: none"> <li>• Calculating with Decimals</li> <li>• Fractions, Decimals and Percentages</li> <li>• Ratios and Fractions</li> </ul>	<ul style="list-style-type: none"> <li>• Scale Diagrams</li> <li>• Pythagoras' Theorem</li> </ul>	<ul style="list-style-type: none"> <li>• 3D Shapes</li> <li>• Volume</li> <li>• Calculating Angles</li> </ul>
<b>Year 9</b>	<ul style="list-style-type: none"> <li>• Rounding and Estimation</li> <li>• Indices</li> <li>• Standard Form</li> <li>• Expanding and Factorising</li> <li>• Rearranging Formulae</li> </ul>	<ul style="list-style-type: none"> <li>• Using Percentages</li> <li>• Maths &amp; Money</li> <li>• Probability &amp; Frequency Trees</li> </ul>	<ul style="list-style-type: none"> <li>• Statistical Measures</li> <li>• Averages from Frequency Tables</li> <li>• Angles in Parallel Lines</li> </ul>	<ul style="list-style-type: none"> <li>• Bearings</li> <li>• Constructions &amp; Loci</li> <li>• Substitution &amp; Formulae</li> <li>• Solving Equations</li> <li>• Inequalities</li> </ul>	<ul style="list-style-type: none"> <li>• Linear Nth Term</li> <li>• Recognising Fibonacci, Quadratic and Geometric Sequences</li> <li>• Straight Line Graphs</li> <li>• Rearranging Formulae</li> </ul>	<ul style="list-style-type: none"> <li>• Units and Compound Measures</li> <li>• Direct &amp; Inverse Proportion</li> <li>• Transformations</li> <li>• Plans &amp; Elevations</li> </ul>

## Key Stage 4

Year Group	Course	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 10 Exam Board: AQA	Higher	<ul style="list-style-type: none"> <li>Factors, multiples, primes, HCF and LCM</li> <li>Indices &amp; Surds</li> <li>Pythagoras</li> </ul> <p>Higher only:</p> <ul style="list-style-type: none"> <li><i>Manipulating surds</i></li> <li><i>Fractional &amp; Negative Indices</i></li> </ul>	<ul style="list-style-type: none"> <li>Similarity</li> <li>Enlargement</li> <li>Trigonometry</li> <li>Fractions, percentages and percentage change</li> <li>Reverse percentages</li> <li>Compound Interest</li> </ul> <p>Higher only:</p> <ul style="list-style-type: none"> <li><i>Recurring Decimals and Fractions</i></li> </ul>	<ul style="list-style-type: none"> <li>Systematic listing &amp; probability spaces</li> <li>Venn Diagrams</li> <li>Circles</li> </ul> <p>Higher only:</p> <ul style="list-style-type: none"> <li><i>Product rule for counting</i></li> <li><i>Probability Trees without replacement</i></li> </ul>	<ul style="list-style-type: none"> <li>Area and volume</li> <li>Straight line graphs</li> <li>Real life graphs</li> <li>Solving quadratics</li> </ul> <p>Higher only:</p> <ul style="list-style-type: none"> <li><i>Volume and surface area</i></li> <li><i>Function notation</i></li> <li><i>Equation of a circle</i></li> </ul>	<ul style="list-style-type: none"> <li>Sketching quadratics</li> <li>Fractions</li> <li>Transformations</li> </ul> <p>Higher only:</p> <ul style="list-style-type: none"> <li>Equation of a tangent</li> <li>Algebraic fractions</li> <li>Invariance</li> </ul>	<ul style="list-style-type: none"> <li>Vectors</li> <li>Frequency tables, bar charts &amp; pictograms</li> <li>Pie charts</li> <li>Scatter graphs</li> <li>Angles &amp; Polygons</li> </ul> <p>Higher only:</p> <ul style="list-style-type: none"> <li><i>Cumulative frequency graphs</i></li> <li><i>Histograms</i></li> </ul>
	Year 11 Exam Board: Edexcel	Higher	<ul style="list-style-type: none"> <li>Equations of lines, circles and tangents</li> <li>Nth term of quadratic sequences</li> <li>Non-standard graphs, gradients and area under a curve</li> <li>Circle Theorems</li> </ul>	<ul style="list-style-type: none"> <li>Sine and Cosine rule</li> <li>Pythagoras and trigonometry in 3D</li> <li>Manipulating Surds</li> <li>Histograms</li> <li>Functions, Composite Functions and Inverse Functions</li> <li>Solving More Complex Quadratic Equations</li> <li>.</li> </ul>	<ul style="list-style-type: none"> <li>Exponential Graphs</li> <li>Trigonometric Graphs</li> <li>Direct and Inverse Proportion</li> <li>Quadratic Inequalities</li> <li>Vector Proofs</li> </ul>	<ul style="list-style-type: none"> <li>Geometric Sequences</li> <li>Algebraic Fractions</li> </ul>	
	Foundation	<ul style="list-style-type: none"> <li>Vectors</li> <li>Probability Tree Diagrams</li> <li>Constructions and Loci</li> <li>Pythagoras' Theorem and Trigonometry</li> </ul>	<ul style="list-style-type: none"> <li>Simultaneous Equations</li> <li>Surface Area and Volume of 3D Shapes</li> <li>Solving Quadratic Equations</li> </ul>	<ul style="list-style-type: none"> <li>Geometric Proof and Congruence</li> <li>Plotting non-linear graphs</li> <li>Direct and Inverse Proportion</li> </ul>			

## Key Stage 5 – A-Level Mathematics

Year Group	Term 1 & 2	Term 3 & 4		Term 5 & 6
<b>Year 12</b> Exam Board: Edexcel	<b>Pure</b> <ul style="list-style-type: none"> <li>• Algebra &amp; Functions</li> <li>• Co-ordinate Geometry</li> <li>• Further Algebra</li> <li>• Trigonometry</li> <li>• Vectors</li> <li>• Differentiation</li> <li>• Integration</li> <li>• Logarithms</li> </ul>	<b>Statistics</b> <ul style="list-style-type: none"> <li>• Data Collection</li> <li>• Data Presentation</li> <li>• Probability</li> <li>• Statistical Distributions</li> <li>• Hypothesis Testing</li> </ul> <b>Mechanics</b> <ul style="list-style-type: none"> <li>• Quantities and Units</li> <li>• Kinematics 1</li> </ul>		<b>Mechanics</b> <ul style="list-style-type: none"> <li>• Forces and Newtons Laws</li> <li>• Kinematics 2</li> </ul> <b>Statistics</b> <ul style="list-style-type: none"> <li>• Regression &amp; Correlation</li> <li>• Probability</li> <li>• Normal Distribution</li> </ul>
<b>Year 13</b> Exam Board: Edexcel	<b>Pure</b> <ul style="list-style-type: none"> <li>• Partial and Algebraic Fractions</li> <li>• Proof</li> <li>• Differentiation</li> <li>• Integration</li> <li>• Sequences and Series</li> <li>• Binomial Theorem</li> <li>• Trigonometry</li> <li>• Functions &amp; Modelling</li> <li>•</li> </ul>	<b>Pure</b> <ul style="list-style-type: none"> <li>• Parametric Equations</li> <li>• Numerical Methods</li> <li>• Vectors</li> </ul>	<b>Mechanics (Year 2)</b> <ul style="list-style-type: none"> <li>• Moments</li> <li>• Forces at an angle</li> <li>• Projectiles</li> <li>• Applications of forces</li> <li>• Further Kinematics</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>