

# KS4 Curriculum Overview 2021/22

## Department: Higher Maths

### Description of KS4 Curriculum:

Providing strong continuation from KS3, resources aim to drive engagement through interesting, problem-solving based content, to prepare students for the AQA GCSE (9-1) Mathematics assessments.

Differentiated Higher and Foundation tier resources designed to give students the tools to apply Mathematical skills in different contexts, enabling them to demonstrate their knowledge and skills to the best of their ability.

Resources are designed to teach the skills students will need, such as Number, Algebra, Ratio, Proportion and Rates of Change, Geometry and Measures, Probability and Statistics and understanding how to solve various questions in a plethora of problem-solving contexts, and to understand what is expected at each tier in the new linear assessments.

Students are most motivated when they are learning something new besides the Mathematics itself- Resources use real life contexts where possible and show students how various skills can be applied to everyday situations.

Planned progression and accessible approach helps build up students' knowledge of Mathematical skills, helping them learn to manipulate problems independently across a range of contexts.

### Sequence of Learning:

KS4	Term 1 Content	Term 2 Content	Term 3 Content
<b>Year 10</b>	<ul style="list-style-type: none"> <li>• Introduction to Trigonometry</li> <li>• Laws of Indices</li> <li>• Standard Form</li> <li>• Percentages</li> <li>• Surds</li> <li>• Non-Linear Sequences</li> <li>• Enlargements and Combining Transformations</li> <li>• Bearings</li> <li>• Trigonometry in right-angled Triangles</li> <li>• Equations of Parallel and Perpendicular Lines</li> <li>• 3D Shapes</li> </ul>	<ul style="list-style-type: none"> <li>• Vectors</li> <li>• Similarity</li> <li>• Limits of Accuracy</li> <li>• Loci</li> <li>• Sine and Cosine Rule</li> <li>• Populations and Samples</li> <li>• Probability</li> <li>• Binomials</li> </ul>	<ul style="list-style-type: none"> <li>• Inequalities</li> <li>• Other Graphs</li> <li>• Simultaneous Equations</li> <li>• Graphical Solutions</li> <li>• Algebraic Equations</li> </ul>
<b>Year 11</b>	<ul style="list-style-type: none"> <li>• Ratio</li> <li>• Arcs and Sectors</li> <li>• Circle Theorems</li> <li>• Circle Equations</li> <li>• Direct and Inverse Proportion</li> <li>• Rearranging Formulae</li> </ul>	<ul style="list-style-type: none"> <li>• Representing and Describing Data</li> <li>• Bivariate Data</li> <li>• Compound Units</li> <li>• Functions</li> <li>• Transformations of Graphs</li> <li>• Iteration</li> </ul>	<ul style="list-style-type: none"> <li>• Revision for exams</li> </ul>

	<ul style="list-style-type: none"><li>• Proof</li></ul>	<ul style="list-style-type: none"><li>• Gradients and Areas</li><li>• Pythagoras and Trigonometry</li></ul>	
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