

## Sixth Form Subject Information

# Mathematics



<b>Qualification</b>	A-Level																		
<b>Exam Board</b>	Edexcel																		
<b>Course Leader</b>	Mrs C Hunt																		
<b>Course summary</b>	<p>Mathematics is a subject which combines well with both Arts and Science subjects. It is highly valued by universities and colleges and can provide students with skills that are invaluable to a whole range of other disciplines. It can also be fun and rewarding in its own right!</p> <p>In this course we will aim to:</p> <ul style="list-style-type: none"> <li>➤ Develop your confidence in solving mathematical problems and help you enjoy mathematics.</li> <li>➤ Help you develop strategies to construct proofs</li> <li>➤ Show you how to extend your range of mathematical skills and techniques</li> <li>➤ Show how different areas of mathematics are connected</li> <li>➤ Develop strategies to solve “real world” problems</li> <li>➤ Help you use mathematics to as an effective means of communication</li> <li>➤ Master the ability to read mathematical articles</li> <li>➤ Show how mathematics links to other subject areas</li> <li>➤ Help you become an independent learner.</li> </ul> <p>Mathematics enrichment events and puzzle activities take place throughout the year.</p>																		
<b>A-Level content</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 50%;">Proof</td> <td style="width: 50%;">Statistical Distributions</td> </tr> <tr> <td>Differentiation</td> <td>Hypothesis Testing</td> </tr> <tr> <td>Integration</td> <td>Probability</td> </tr> <tr> <td>Algebra and functions</td> <td>Statistical Sampling</td> </tr> <tr> <td>Coordinate Geometry</td> <td>Vector quantities and units in Mechanics</td> </tr> <tr> <td>Sequences and Series</td> <td>Kinematics</td> </tr> <tr> <td>Trigonometry</td> <td>Forces and Newton’s Laws</td> </tr> <tr> <td>Exponentials and Logarithms</td> <td>Moments</td> </tr> <tr> <td>Numerical Methods</td> <td></td> </tr> </table>	Proof	Statistical Distributions	Differentiation	Hypothesis Testing	Integration	Probability	Algebra and functions	Statistical Sampling	Coordinate Geometry	Vector quantities and units in Mechanics	Sequences and Series	Kinematics	Trigonometry	Forces and Newton’s Laws	Exponentials and Logarithms	Moments	Numerical Methods	
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<b>How will students be assessed?</b>	A Level is assessed by two 2 hour papers incorporating pure maths and one 2 hour paper consisting of statistics and mechanics. Each paper will constitute 100 marks and contain a mixture of single and multi-step questions. Each paper will constitute 1/3 of the A level.																		
<b>Differentiation</b>	Exercises are available to stretch the more able and support in terms of 1 to 1 is given to those needing more help.																		
<b>Resources</b>	Text books are linked to the exam board requirements. There are many websites available to support review and revision.																		