

# St John's Curriculum Overview – Year 13

<b>Subject title</b>	<b>Further Maths</b>
Setting arrangements	No setting
Time allowance each fortnight	18 hours

## Introduction

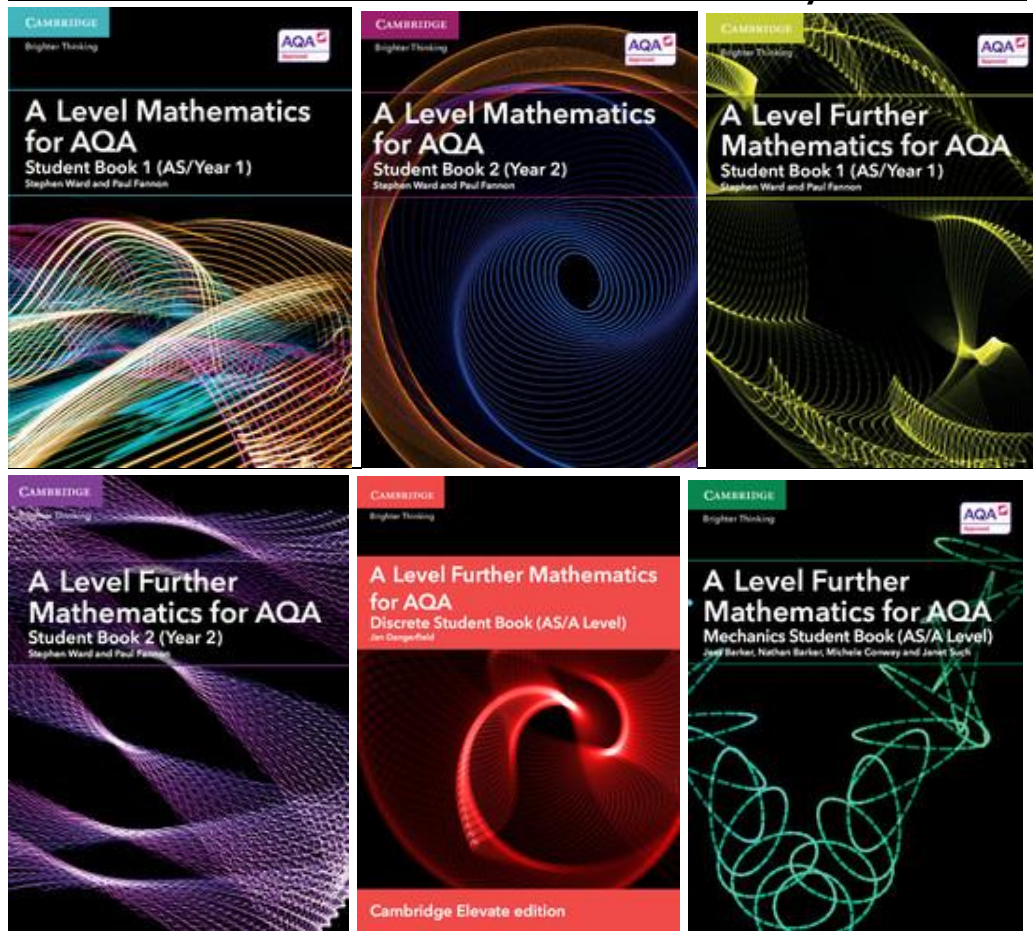
A Level Further Maths at St John's is taught to the AQA 7367 specification alongside A Level Maths to the AQA 7357 specification. This results in two A Levels at the end of the course. A Grade 7 at GCSE is required for this course.

## Topics, Skills and Assessment covered during the course

	<b>Topics covered</b>	<b>Skills developed</b>	<b>Assessment</b>
<b>Term 1</b>	Rational Functions and Partial Fractions General Binomial Expansion Numerical Integration Numerical Solutions of Equations Radian Measure Further Trigonometry Further Differentiation Forces in Context Moments Work Energy and Power Dimensional Analysis	Extension of Year 12 knowledge and the introduction of new skills, dependent on the topics covered. Details are found at the beginning of each chapter in the text book.	Homework and teacher assessment
<b>Term 2</b>	Further Complex Numbers: Powers and Roots Further Complex Numbers: Trigonometry Transformation of Conic Sections Further Integration Momentum and Collisions Circular Motion Conditional Probability	Extension of Year 12 knowledge and the introduction of new skills, dependent on the topics covered. Details are found at the beginning of each chapter in the text book.	Cross Topic Review Homework and teacher assessment

<b>Term 3</b>	<p>Further Graphs and Inequalities  Further Vectors  Further Matrices  Further Polar Coordinates  Further Applications of Calculus  Differential Equations  Further Calculus  The Normal Distribution  Further Hypothesis Testing</p>	<p>Extension of Year 12 knowledge and the introduction of new skills, dependent on the topics covered. Details are found at the beginning of each chapter in the text book.</p>	<p>Homework and teacher assessment</p>
<b>Term 4</b>	<p>Hyperbolic Functions  Maclaurin Series and Limits  Numerical Methods  Further Differential Equations  Applications of Differential Equations  Work Power and Energy 2  Momentum 2  Circular Motion 2</p>	<p>Extension of Year 12 knowledge and the introduction of new skills, dependent on the topics covered. Details are found at the beginning of each chapter in the text book.</p>	<p>Mock Exams  Homework and teacher assessment</p>
<b>Term 5</b>	<p>Centres of Mass  Moments and Couples  Revision and Catch up</p>	<p>Extension of Year 12 knowledge and the introduction of new skills, dependent on the topics covered. Details are found at the beginning of each chapter in the text book.</p>	<p>Homework and teacher assessment</p>
<b>Term 6</b>	<p>Study Leave</p>		<p>A Level Maths Exams</p> <ul style="list-style-type: none"> <li>• 3 x 2 hour papers</li> <li>• Paper 1 – Pure Maths only</li> <li>• Paper 2 – Pure and Mechanics</li> <li>• Paper 3 – Pure and Statistics</li> </ul> <p>A Level Further Maths Exams</p> <ul style="list-style-type: none"> <li>• 3 x 2 hour papers</li> <li>• Paper 1 &amp; 2 – Pure Maths only</li> <li>• Paper 3 – Discrete and Mechanics</li> </ul>

## Resources Recommended for Revision and where they are available:



These books are available in class and every student is given a code to access an extended electronic version.

## Homework

Every student is expected to match the number of hours spent in lessons with work completed in their own time.

## Additional support and help for the course

One afternoon after school per week is set aside for revision workshops.

## Extra-Curricular:

UKMT Maths Challenge, Team Maths Challenge and Olympiad for Girls