

# St John's Curriculum Overview – Year 12

<b>Subject title</b>	<b>Mathematics</b>
Setting arrangements	No setting
Time allowance each fortnight	9 hours

## Introduction

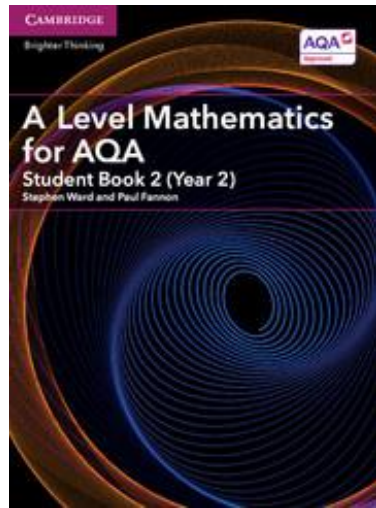
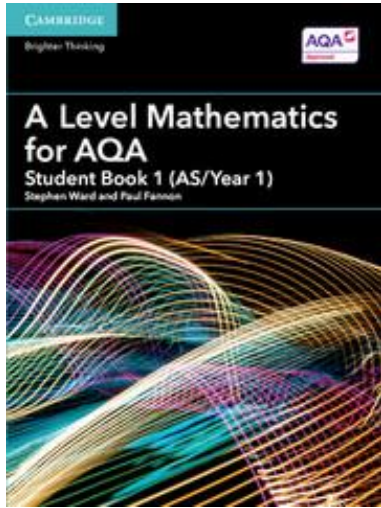
A Level Maths at St John's is taught to the AQA 7357 specification. A Grade 6 at GCSE is required for this course.

## Topics, Skills and Assessment covered during the course

	<b>Topics covered</b>	<b>Skills developed</b>	<b>Assessment</b>
<b>Term 1</b>	Proof and Mathematical Communication Indices and Surds Quadratic Functions Polynomials	Extension of GCSE 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.	Initial Algebra Skills Test Homework and teacher assessment
<b>Term 2</b>	Using Graphs Coordinate Geometry Logarithms Exponential Models Binomial Expansion	Extension of GCSE 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 3</b>	Trigonometric Functions and Equations Triangle Geometry Differentiation	Extension of GCSE 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 4</b>	Applications of Differentiation Integration Vectors	Extension of GCSE 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 5</b>	Mechanics Statistics	Application of skills and knowledge to Mechanics and Statistics scenarios.	Cross Topic Review Homework and teacher assessment

<b>Term 6</b>	Proof and Mathematical Communication 2 Functions Further Transformations of Graphs Sequences and series	Extension of GCSE 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.	End of Year Exam (AS papers) <ul style="list-style-type: none"> <li>• 2x 1.5 hour papers</li> <li>• Paper 1 – Pure and Mechanics</li> <li>• Paper 2 – Pure and Statistics</li> </ul>
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**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