Mathematics & Further Mathematics

Advanced Level

Exam Board: AQA

Entry Requirements:

It is essential to have studied for GCSE Higher Tier and gained at least a grade 'B/6'.

"A student who would enjoy studying Maths at A-Level is one with a keen interest in problem solving, learning mathematical techniques that can be applied to real-life situations and how to show their solutions in a concise way. They will have good algebraic skills which will allow them to manipulate expressions readily. Statistics is used readily in many other subjects, eg biology, geography, psychology; Mechanics is essential for physicists and engineers .

Why Study Mathematics at A Level?

- It is challenging, interesting and rewarding for those who enjoy the subject.

- It will support work in courses at 'A' Level in a range of subjects, especially the Sciences, IT, Psychology and PE.

- Many Higher Educational courses and vocational courses value advanced Mathematics level as an important qualification.

- Further study in Mathematics is very highly valued by employers.

What will I learn on this course?

You will build on some algebra work met at GCSE but also meet new concepts in pure maths and applied maths (statistics, mechanics).

You will be expected to:

- Use mathematical skills and knowledge to solve problems.

- Use mathematical arguments to show an understanding of proof.

- Simplify real-life situations so that you can use mathematics to show what is happening and what might happen in different circumstances.

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The A level Mathematics course is a linear qualification. Linear means that students will sit all their exams at the end of the course.

The exam is made up of 3 equally weighted papers which have the following content.

Paper 1 (2 Hour paper)	Paper 2 (2 hour paper)	Paper 3 (2 hour paper)
Proof	Any content from paper 1	Any content from paper 1
Algebra and functions	Vectors	Statistical Sampling
Coordinate geometry	Quantities and units in mechanics	Data representation and interpretation
Sequences and series	Kinematics	Probability
Trigonometry	Forces and Newton's laws	Statistical distributions
Exponentials and Logarithms	Moments	Statistical hypothesis testing
Differentiation		
Integration		
Numerical methods		

The papers will be made up of mix of question styles, from short, single-mark questions to multi-step problems.