



A Level Mathematics - Course Information

Exam board - AQA

What is A Level Mathematics?

A Level Mathematics is an advanced two-year qualification studied after GCSEs, focusing on pure mathematics, statistics, and mechanics. Considered one of the more challenging A Levels, requiring consistent practice, the course builds directly on Higher GCSE Mathematics but introduces much more abstract concepts. Success in this subject often depends on strong algebra skills and the ability to apply maths to real-world contexts.

What does the course involve?

- Two thirds of the course is Pure mathematics.
- The remaining one third of the course is made up of Mechanics and Statistics.

Entry Requirements: GCSE Mathematics grade 7 or above and grade 5 in English

What themes are studied and how is it assessed?

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Students explore three key areas throughout the course:

- **Pure Mathematics:** *Topics include: Algebra and functions, Trigonometry, Calculus (differentiation & integration), Proof, sequences, series, vectors, and coordinate geometry*
- **Mechanics:** *Kinematics (motion), Forces and Newton's laws, Moments and applications in physical systems*
- **Statistics:** *Data presentation and interpretation, Probability and statistical distributions, Hypothesis testing*

How is it assessed?

Assessment is through **three written exams** at the end of Year 13, each testing knowledge of concepts and applications of mathematics.

Paper 1: Pure Maths only - written exam: 2 hours (100 marks)
Paper 2: Pure Maths and Mechanics - written exam: 2 hours (100 marks)
Paper 3: Pure Maths and Statistics - written exam: 2 hours (100 marks)

Is A level Maths the right choice for me?

Students studying Mathematics will extend their range of mathematical skills and techniques and use them in more difficult, unstructured problems. There is a large emphasis on algebraic manipulation and problem solving over the course so it is essential to be enthused by these aspects. A Level Maths is perfect for anybody with an inquisitive mind. This subject has a reputation of being rather difficult but presents a stimulating challenge to students who enjoy Mathematics and have an aptitude for it.

Where Can Mathematics Take You?

Mathematics combines well with other A level courses including Physics, Chemistry, Biology, Psychology, Geography, Business Studies and Economics. Examples of university courses an A Level in Mathematics could lead to include Mathematics, Statistics, Sciences, Finance, Engineering, Architecture among many others. Mathematics can lead to a vast range of employability opportunities. These include, but are not exclusive to, Teaching, Lecturing, Engineering, Marketing, Finance, Research, Data Analysis, Accountancy, Software Engineering, Quantity Surveying.

For more information about the course, please see Mr Ward