

A Level Mathematics

N



Why this subject?

A level Mathematics is an interesting and challenging course which extends the methods you learned at GCSE and includes optional applications of mathematics, such as Statistics and Mechanics.

The reason why so many employers highly value mathematics qualifications is mathematics students become better at thinking logically and analytically. Through solving problems, you develop resilience and are able to think creatively and strategically.

Course Outline

Through out years 12 and 13, student study three key areas of mathematics: Pure, Mechanic and Statistics.

Pure - covers the key mathematical skills such as Algebra, Trigonometry and you will be introduced to calculus.

Statistics – Collecting and analysing data and using this to make predictions about future events. Many subjects make use of statistical information and techniques. An understanding of probability and risk is important in careers like insurance, medicine, engineering and the sciences.

Mechanics – Modelling and analysing the physical world around us, including the study of forces and motion. Mechanics is particularly useful to students studying physics and engineering.

There are a total of 21 units across the two years.

Year 12

Units 1-11 are covered in year 12 (6 units of pure, 2 units of mechanics and 3 units of statistics).

Year 13

Units 12-21 are covered in year 13 (6 units of pure, 2 units of mechanics and 2 units of statistics).



Key Information

Exam Board	Edexcel
Qualification Type	A Level
Entry Requirements	Academic A Level Pathway. Level 7 in GCSE Mathematics.
Head of Department	Ms McKay

A Level Mathematics



Assessment Outline

100% Exam Based Assessment

The course is assessed at the end of year 13 via the completion of 3 exam papers:

- **Paper 1: Pure Mathematic 1**
- **Paper 2: Pure Mathematics 2**

Each paper is a 2-hour written examination and will contain questions from any topics from the Pure Mathematics content. Each paper is marked out of 100.

- **Paper 3: Statistics and Mechanics**

This is also a 2-hour written examination and is marked out of 100. The paper is divided into two sections. Section A covers Statistics and Section B covers Mechanics.

Students are required to answer all the questions on these papers.

Students are also given a formula booklet containing key formula and information tables.

Calculators can be used in all papers.



Careers and next steps

Mathematics is a versatile qualification, well-respected by employers and are both “facilitating” subjects for entry to higher education. Careers for people with good mathematics skills and qualifications are not only well paid, but they are also often interesting and rewarding. People who have studied mathematics are in the fortunate position of having an excellent choice of career. Whilst the number of young people studying A level Mathematics and Further Mathematics is increasing there is still a huge demand from science, engineering and manufacturing employers.

The mathematical skills you learn in A level Mathematics are of great benefit in other A level subjects such as Physics, Chemistry, Biology, Computing, Geography, Psychology, Economics and Business Studies. Studying A level Further Mathematics is likely to improve your grade in A level Mathematics. The extra time, additional practice, further consolidation and development of techniques contribute to improved results in A level