

## FURTHER MATHS

*“Pure mathematics is, in its way, the poetry of logical ideas.”*

**Albert Einstein**

Curriculum lead:

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Exam board:

AQA

### Why study A Level Maths?

Studying A-Level Further Maths is beneficial for university and career progression in STEM, economics, and finance by preparing you for degree-level mathematics and developing highly valued skills like logical reasoning and problem-solving. It makes university degrees, particularly in subjects like physics, engineering, and mathematics, more manageable and can give you a competitive edge in applications and future job markets.

### What will you study?

The course builds on content covered in GCSE and the A-level maths course. Further maths is run in parallel with the A-level course. 2/3 pure content: furthering studies of algebra, trigonometry graph sketching calculus and functions, along with bringing in new topics such as matrices, complex numbers and hyperbolic functions. 1/6 mechanics: building on the work done in the main A-level maths and bringing in ideas of work, energy and power, springs, momentum, and circular motion.

1/6 Discrete: investigating how algorithms can apply to the real world, looking at things like project management, network flows and graph theory.

### How will you be assessed?

Assessment All students are automatically entered for AS-level further maths For AS further maths there are 2 exams 1 hour 30 minutes each worth 50% of the AS Paper 1: pure content only Paper 2: Discrete and mechanics content For the full A-level 3 exams at the end of year 13 all calculator permitted each 2 hours long each worth 1/3 of the course. Paper 1: pure content only Paper 2: pure content only Paper 3: 50% discrete 50% mechanics.

### What do I need to study the course?

Entry requirements: To study A-level further maths, we require a grade 7 or higher at GCSE maths, plus an APS of 5.5+. You can only do A-level further maths if you are also doing A-level maths. There is no requirement that you have studied GCSE further maths though this will certainly help you.

### Which subjects combine well with Further Maths?

Business, physics, biology, chemistry, geography and many more.



The Ferrers  
Sixth Form