



A Level Further Mathematics - Course Information

Exam board - AQA

What is A Level Further Mathematics?

A Level Further Mathematics is an advanced two-year qualification studied alongside A level Mathematics, 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 and A level Mathematics but also 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 Further Pure mathematics.
- The remaining one third of the course is made up of Further Mechanics and Further Statistics.

Entry Requirements: GCSE Mathematics grade 8 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: Complex Numbers, Matrices, Roots of Polynomials, Further Calculus, Further Vectors, Differential Equations.*
- **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 only - written exam: 2 hours (100 marks)
Paper 3: Mechanics and Statistics - written exam: 2 hours (100 marks)

Is A level Further Mathematics the right choice for me?

Students studying Further Mathematics will extend their range of mathematical skills and techniques alongside the skills learned in A level Mathematics. You will develop your understanding of mathematics and mathematical processes in a way that promotes confidence and fosters enjoyment. You will develop your abilities to reason logically, to generalise and to construct mathematical proofs and use mathematics as an effective means of communication.

Where Can Further Mathematics Take You?

Further 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 Further Mathematics could lead to include Mathematics, Statistics, Sciences, Finance, Engineering, Architecture among many others. Further 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