

FURTHER MATHEMATICS

Examination Board: Edexcel

Why study Further Mathematics?

Students who take Further Mathematics are acknowledged as having top quality analytical and problem solving skills and are highly regarded by universities and employers. The course offers students the opportunity to delve further into topics covered in A Level Maths such as calculus and geometry, as well as new topics such as complex numbers and matrices.

Where does it lead?

Further Mathematics is strongly recommended for students who wish to study a subject at university with a high mathematical content, e.g. engineering, physics, computer science or mathematics. The statistics element of Further Mathematics will also benefit a wide range of students, including social scientists, geographers and biologists.

At post-degree level Further Maths students can ultimately take up careers with a high mathematical content, e.g. finance, banking, science, meteorology, statistics, mathematical modelling, engineering and many others (see www.mathscareers.org.uk).

Course Content

In Further Mathematics students are introduced to completely new concepts such as complex numbers and matrices, as well as looking at some of the ideas from the Mathematics A Level in more depth. Further Mathematics has the same three overarching themes as Mathematics – problem solving, mathematical modelling and proof.

The following components will be studied:

- **Pure Maths** – Complex numbers, matrices, polar coordinates, differential equations, further vectors, further algebra, hyperbolic functions, proof.
- **Further Mechanics**
- **Further Statistics**

Course Assessment

There are four 90 minute examination papers which are equally weighted and a calculator can be used in all of them:

- **Paper 1 – Core Pure Mathematics 1**
- **Paper 2 – Core Pure Mathematics 2**
- **Paper 3 – Further Statistics 1**
- **Paper 4 – Further Mechanics 1**

N.B. If you are taking three A Level subjects, including maths, you can choose to either study AS Further Maths as a fourth subject, sitting the AS exam in the summer of Year 12 or as a full A level sitting the exam in the summer of Year 13.

**For further information, please contact
Mrs Spencer, Mr Cobb or Mrs Cobb**

