# **Further Mathematics**



Examination Board: Edexcel
Qualification: AS level and A level
Teacher Contact: Mr Smith

Entry Requirements: Grade 8 and studying A level Maths.

## What will I study?

The first year is made up of a Pure Mathematics unit and two optional units. Currently in Year 12, students study Further Statistics 1 and Further Statistics 2 as the optional units.

#### Pure

In the Pure unit students will encounter a number of completely new concepts such as complex numbers, volumes of revolution and matrices as well as building on subject areas such as series, proof and vectors.

#### Statistics 1 and 2

In the Statistics units students will cover a number of new techniques such as Poisson distribution, chi-squared testing, product moment correlation coefficient and regression lines. All of these concepts are ones that are highly transferable in other subjects at A level and degree level.

In the second year students will continue to study the Pure unit in more depth; however, there will be some degree of choice within the option unit depending on the strengths and interests of the class. Students can choose between Further Pure, Mechanics and Statistics.

### Pure

The Pure unit significantly builds up the work that students will do in their A level Maths qualification and complements this qualification really well. The main concepts covered are; complex numbers, methods of calculus, series, polar co-ordinates, hyperbolic functions and differential equations.

## How will I be assessed?

At the end of the Year 12, all students will sit an exam in AS Further Maths. This will consist of one Pure paper and one option paper. Those achieving a grade B or higher can choose to continue into the second year and sit the full A level. In the second year, students will sit two Pure papers and two option papers.

#### Am I suited to this course?

If you have a passion for maths and enjoy learning about new concepts this is a course that you will particularly enjoy.

## What other subjects does it complement?

Further Maths complements a huge array of other subjects but primarily is closely linked to subjects such as Physics and Chemistry; however there are lots of elements that cross over with subjects such as Biology, Economics and Geography.

## Where can it lead?

Further Maths is a highly sought-after A level by a large number of universities and subjects. Quite often courses will lower their entry requirements for students that have studied AS or A level Further Maths. Equally, it will often be a required subject for students looking to go to a top university to study a mathematics-based course.