



## MATHEMATICS A level

### Why take this course?

Mathematics is a subject that is popular and has many and varied applications. Studying at advanced level will help you to acquire skills in problem solving and logic which are highly valued by employers and necessary for many higher education courses.

In pure maths, you will build on work that you have covered at GCSE, including algebra and trigonometry, and learn new topics such as calculus.

You will also study two applied aspects of maths, the first being statistics. Within this section you will learn how to analyse and summarise numerical data. The course extends the range of statistics and probability topics from GCSE.

The second applied aspect in addition to the pure maths is mechanics. This covers much of the maths behind physics and involves learning about movement and the effect of forces on various types of objects in practical situations.

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

For A level maths you will need a grade 6 or above in your GCSE maths.

### What about exams and coursework?

There are three exams at the end of Year 13 which are each two hours long. There is no coursework.

### What do students say?

*At first I felt like I was struggling but I have settled into maths and am enjoying it, with pleasing test results!*

*It's a big step up but I'm getting to grips with it and the lessons always enjoyable!*

*Maths is challenging but fun too!*

### What can I do with this course?

This course combines well with many subjects at A level especially biology, chemistry, physics, psychology, ICT, business studies, geography, design and economics.

Maths has enormous applications and advanced study is desirable for many university courses and careers. It is essential for degrees in economics, engineering, mathematics and physics.

### Are there any compulsory course costs?

Students will need to purchase a Casio Classwiz FX-991EX calculator at an approximate cost of £20 as well as four textbooks at a total cost of approximately £60. New copies are not essential, as good second hand copies may be available through Amazon.



## FURTHER MATHEMATICS A level

### Why take this course?

If you like maths and are interested in studying maths at University, or you wish to take a higher education course with a large mathematical content (like natural sciences, economics, physics, computing or engineering), you should consider further maths. This course leads to **two** A levels in maths. You will study twice as much content compared to maths A level on its own and sit twice as much exam time.

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

You will need a grade 7 or above in your GCSE maths.

### What about exams and coursework?

There are four modules and each has a 90 minute exam at the end of Year 13. Each module carries the same number of marks and there is no coursework.

### What do students say?

*Studying further maths has helped me to develop independent study skills. It's difficult but only a bit tougher than single maths - it's just **more** maths really!*

### What can I do with this course?

The logic and problem-solving skills obtained through studying further maths are highly valued by employers and universities. You could follow a course in maths at degree level. Students often take subjects at university that are strongly related to maths such as actuarial science, astronomy, architecture, computing, chemistry, economics, engineering, finance, philosophy, physics, psychology and statistics.

### Are there any compulsory course costs?

Students will need to purchase an additional four textbooks to the maths A level at a total cost of approximately £70. New copies are not essential, as good second hand copies may be available through Amazon.