

# Mathematics

## A Level

### Head of Department:

Mrs C Gratton and Ms A Witt

**Exam Board:** Pearson EdExcel



### What is the course about?

Mathematics is an intriguing subject and finding the solution to a problem provides a level of challenge and excitement. The modules allow students to use their logical thought, imagination and intuitiveness to investigate and solve problems using different skills. The rigour involved in this course really does give the brain a good workout and there is nothing more satisfying than obtaining the correct answer to a complex problem! The skills acquired at GCSE are developed further in the A Level course, with a particular emphasis on algebra.

### What will I study in the first year?

In the first year you will study pure mathematics, mechanics and statistics. Pure mathematics involves the in-depth study of calculus and its applications, graphs and proof. Mechanics is the study of the physical world which includes forces and the movement of objects. Statistics involves analysing large real data sets.

### What will I study in the second year?

In the second year you will study pure mathematics in greater depth, building on the knowledge you acquired during the first year, in addition to more statistics and mechanics.

### How is the course assessed?

Assessment is 100% exam and will consist of two pure mathematics papers and a combined statistics and mechanics paper.

### What skills will I develop in this course?

By the end of the course you will have developed persistence and the confidence to deal with information given in algebraic, numerical and graphical form and be able to apply your knowledge to model situations in real life. You will also be competent at solving problems and producing written work which is logical and concise.

### What does this subject offer for higher education and future careers?

Those who study A Level Mathematics earn on average 10% more than those without. Mathematics provides a basis for a number of university courses, such as the sciences, computing, business studies, geography and psychology and is an essential requirement of engineering degree courses. Students intending to study mathematics at degree level should consider taking AS or A Level Further Mathematics.