

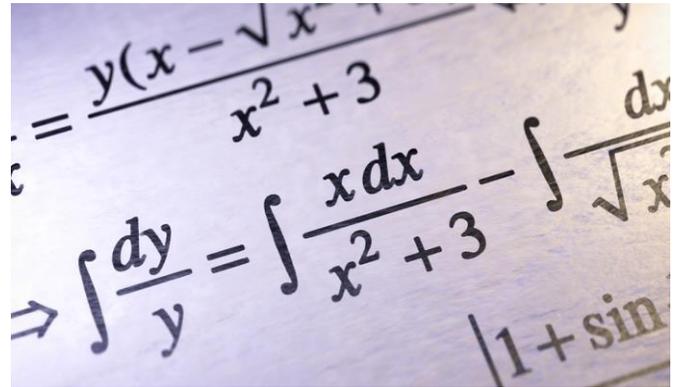
# Further Mathematics

## A Level

**Head of Department:**

Mrs C Gratton and Ms A Witt

**Exam Board:** Pearson EdExcel



### What is the course about?

Further Mathematics is a much more demanding A Level subject and is highly respected by higher education institutions and employers. It is designed to be taken alongside A Level Mathematics. The course further develops the skills and content acquired at A Level Mathematics in addition to introducing new concepts, which include decision mathematics and complex numbers.

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

In the first year you will study further pure mathematics in greater depth. This will include proof by induction, matrices and vectors. You will also be introduced to decision mathematics, which involves using and applying algorithms in logic problems.

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

In the second year we just keep advancing! New topics include series expansions, polar coordinates, complex numbers, differential equations and hyperbolics. You will also have the opportunity to extend your knowledge of either statistics or mechanics.

### How is the course assessed?

Assessment is 100% exam and will consist of two further pure mathematics papers, a decision paper and an applied mathematics paper.

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

By the end of the course you will have the confidence to start degree-level mathematics with all the necessary tools and foundation to excel. The ability to apply your knowledge will be extremely useful in careers that involve a high level of mathematics.

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

Further Mathematics is particularly useful for students wishing to read mathematics at university or pursue a career involving mathematics. It is a distinguished subject to achieve and is highly prized by industry and universities. The reason why so many employers highly value mathematics qualifications is mathematics students become better at thinking logically and analytically. Through solving problems you develop resilience and are able to think creatively and strategically. The writing of structured solutions, proof and justification of results help you to formulate reasoned arguments. And importantly you will have excellent numeracy skills and the ability to process and interpret data.