



# FURTHER MATHS A-LEVEL

## WHY SHOULD I STUDY A-LEVEL FURTHER MATHS?

A level Maths is a stimulating and challenging course with the following benefits: Increase knowledge and understanding of mathematical techniques and their applications; Support the study of other A levels; Develop key employability skills such as problem-solving, logical reasoning, communication and resilience; Excellent preparation for a wide range of university courses; Leads to versatile qualifications that are well-respected by employers and higher education.

## WHAT WILL I LEARN ABOUT?

If you study Further Maths too at A level, this can open many avenues and will make you a highly attractive prospect to many employers in a range of sectors. You should only study Further Mathematics if you really enjoy the subject.

## HOW WILL I BE ASSESSED?

**Paper 1: Core Pure Mathematics 1;** 25% - 1 hour 30 mins - 75 marks Compulsory content - any content

**Paper 2: Core Pure Mathematics 2 can be assessed on either paper;** 25% - 1 hour 30 mins - 75 marks

**Paper 3: Further Mathematics Option 1;** 25% - 1 hour 30 mins - 75 marks (Students take two optional papers with options available in Further Pure Mathematics, Further Statistics, Further Mechanics, Decision Mathematics)

**Paper 4: Further Mathematics Option 2;** 5% - 1 hour 30 mins - 75 marks

## WHAT SKILLS WILL I DEVELOP?

Non-routine problem solving – expert thinking, metacognition, creativity; Critical thinking – such as analysing, synthesising and reasoning skills; ICT literacy – access, manage, integrate, evaluate, construct and communicate; Communication – active listening, oral communication, written communication; Relationship-building skills – teamwork, trust, intercultural sensitivity; Collaborative problem solving – establishing and maintaining team organisation; Adaptability – ability to cope with different personalities, communication styles and cultures; Self-management and self-development – ability to work remotely in virtual teams, work autonomously, be self-motivating and self-monitoring.

## WHERE COULD THIS SUBJECT TAKE ME IN THE FUTURE?

### Applications of mathematics in technology:

Medical, games design, internet security, financial cryptography, programming, communications.

### On-going applications in engineering, such as:

Aircraft modelling, fluid flows, acoustic engineering, electronics, civil engineering.

### Applications relating to human behaviours and interactions:

Data science, psychology, law, economics, climate change, environmental modelling, political science, international development.

**Exam Board:** Edexcel

