



# MATHS A-LEVEL

## WHY SHOULD I STUDY A-LEVEL 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?

A level Maths helps to support the study of subjects like physics, chemistry, engineering, IT, economics, business, and biology.

## HOW WILL I BE ASSESSED?

Advanced GCE in Mathematics consists of three externally examined papers. Students must complete all assessment in May/June in any single year.

### **Paper 1 and Paper 2:**

Pure Mathematics

### **Paper 3:**

Statistics and Mechanics. Each paper is: 2-hour written examination

## 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, environmental modelling, climate change, political science, international development.

Exam Board: Edexcel

