## MATHEMATICS

### **Entry requirements:**

A Grade 7 at GCSE in higher level Mathematics.

### Why study Mathematics?

Studying Mathematics will increase your knowledge and understanding of Mathematical techniques and their applications whilst supporting your study of other A levels, particularly Physics and Chemistry. The study of Mathematics will enable you to develop key employability skills such a problem solving, logical reasoning, communication and resilience.

A level Mathematics is a versatile qualification that is well-respected by employers and higher education.



# WHAT WILL I STUDY?

#### **Pure Mathematics:**

The methods and techniques which underpin the study of all other areas of mathematics. Including trigonometry, calculus, algebra, vectors and proof.

#### **Statistics:**

Studying statistical sampling, data presentation and probability, leading to the study statistical distributions

#### **Mechanics**:

The modelling of the world around us, the motion of objects and the forces acting on them.

If you are planning a career in Physics or Engineering you would find mechanics particularly useful.

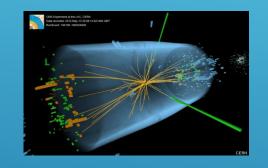


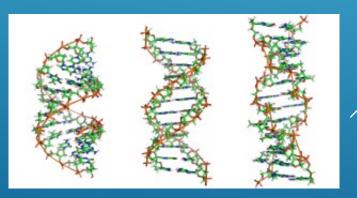
# CAREER OPPORTUNITIES

#### An A Level in Mathematics could lead to a career in

- Forensic science
- Architecture
- Geology
- Programming
- Civil Engineering
- Astronomy

And many more











## FURTHER MATHEMATICS

### **Entry requirements:**

You must have a Grade 7 at GCSE in higher level Mathematics

### Why study Further Mathematics?

Further Mathematics will introduce you to fascinating mathematical concepts. It will develop your problem solving skills and broaden your Mathematical knowledge, which will help you to boost your performance in A level Mathematics.

If you plan to apply for a degree which is rich in Mathematics, a qualification in Further Mathematics will give your application an edge.





# WHAT WILL I STUDY?

#### **Further Pure Mathematics:**

Introducing you to complex numbers, matrices, hyperbolic functions and polar coordinates. In addition to deepening your understanding of vectors, calculus trigonometry and proof.

#### **Optional Content:**

Students will choose to take 2 of the following modules

- Further Pure Mathematics 3 & 4
- Further Statistics
- Further Mechanics
- Decision Mathematics



# CAREER OPPORTUNITIES

### An A Level in Further Mathematics could lead to a career in

- Computer science
- Video game design
- Engineering
- Meteorology
- Finance
- Actuary

And many more









