

# MATHEMATICS

## **Entry requirements:**

A Grade 6 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 as problem solving, logical reasoning, communication and resilience.

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

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# 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 of 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.

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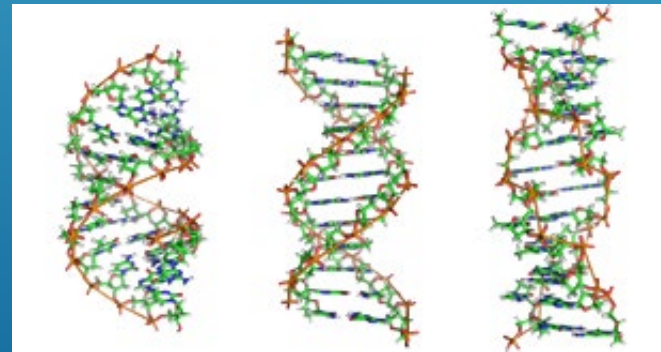
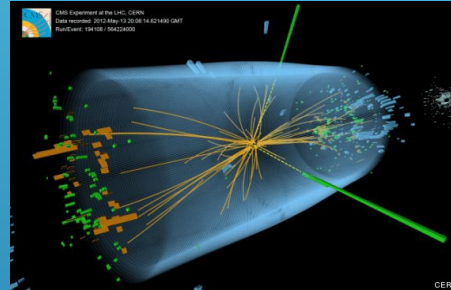


# CAREER OPPORTUNITIES

An A Level in Mathematics could lead to a career in

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

And many more



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# 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.

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# 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

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# 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



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