

# Mathematics

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**Examination Board:** Edexcel

**Qualification:** A level

**Teacher Contact:** Mr Smith

**Entry Requirements:** Grade 7 at GCSE.

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## What will I study?

The first year course is comprised of two elements, Pure Mathematics and Applied Content in the ratio 2:1.

### Pure Mathematics

Proof, algebra and functions, coordinate geometry in the (x,y) plane, sequences and series, trigonometry, exponentials and logarithms, differentiation, integration and vectors.

### Statistics and Mechanics

**Statistics:** Statistical sampling, data presentation and interpretation, probability, statistical distributions and statistical hypothesis testing.

**Mechanics:** Quantities and units in mechanics, kinematics and forces and Newton's laws.

The second year course is comprised of two elements, Pure Mathematics and Applied Content in the ratio 2:1 up to an A level standard.

### Pure Mathematics

The Year 1 Pure Mathematics content plus additional content: proof, algebra and functions, coordinate geometry in the (x,y) plane, trigonometry, differentiation, integration and numerical methods.

### Statistics and Mechanics

**Statistics:** The Year 1 Mathematics Statistics content plus additional content: statistical sampling, data presentation and interpretation, probability, statistical distributions and statistical hypothesis testing.

**Mechanics:** The Year 1 Mathematics Mechanics content plus additional content: quantities and units in mechanics, kinematics, forces and Newton's laws and moments.

## How will I be assessed?

At the end of the second year, Mathematics is assessed in three examinations. A 2-hour Pure Mathematics exam that covers the Year 1 content, a 2 hour exam on the remaining Pure content which builds on and incorporates Year 1 content and a 2-hour exam on Statistics and Mechanics.

## Am I suited to this course?

You would be well suited to studying Mathematics at A level if you:

- have a logical mind and enjoy using Mathematics to solve problems in real-life situations
- want to develop your problem-solving techniques.

## What other subjects does it complement?

Mathematics complements a wide range of subjects.

The pure elements of the course combine well with Chemistry and Physics. There are also links to other subjects including Biology, Geography, Psychology and Sociology.

## Where can it lead?

Mathematics A level leads to the study of Mathematics in its own right or as a support to many other courses, such as Science, Business Studies, Medicine and Accountancy.

Careers in the financial sector, e.g. banking and insurance, often look for a mathematical qualification beyond GCSE.