

## Why study A Level Mathematics?

Choosing A Level Mathematics is a great choice for your future. Mathematics is a very wide subject area and therefore provides a good foundation for careers in many areas.

A good grade in A Level Mathematics is highly regarded and can increase earning power by up to 10%. Researchers have found that: people with Mathematics A Level go on to earn significantly more than their peers with equivalent qualifications.

Studying A Level Mathematics can also help you with your studies in other A Level subjects. For example, the mechanics module links to Physics and the statistics module links to research methods for many of the Social Sciences. You will also develop skills in reasoning logically and solving problems.

## What new skills will I learn?

Students attend five hours of lessons a week and are expected to take an increasing responsibility for their own learning by completing at least four hours of additional work per week. Work must be handed in regularly and regular feedback is made on progress.

Students who choose A Level Mathematics are taught by experienced and enthusiastic teaching staff who are committed to supporting students both in and out of lessons in order to achieve success.

## Career routes in Mathematics

Well done! You've made it through over a decade of compulsory education, a key part of which has been Maths. Choosing to study A Level Mathematics will impress both prospective employers and university admission tutors. It shows you can think logically, accurately process information, and skilfully manipulate numbers.

If you really enjoy Maths, you might also consider taking Further Maths at A Level. You don't need to study Further Maths to get a place to study Mathematics at university but extra study is always an advantage. Some universities may require Further Maths so make sure you are aware of the entry qualifications when choosing a university and course. A Level Mathematics can lead to many academic and career choices including engineering, science, technology, finance and business.

**A Level Mathematics may not be an easy option...  
but the rewards, in terms of job satisfaction and a lucrative  
financial package, could be well worth it.**

# Course Outline

## Core Year 12

- Algebra
- Coordinate Geometry
- Differentiation
- Integration.
- Algebra and Functions
- Sequences and Series
- Trigonometry
- Exponentials and Logarithms
- Differentiation
- Integration.

## Statistics

- Numerical Measures
- Probability
- Binomial Distribution
- Normal Distribution
- Estimation
- Correlation and Regression.

## Core Year 13

- Algebra and Functions
- Trigonometry
- Exponentials and Logarithms
- Differentiation
- Integration
- Numerical Methods.
- Algebra and Functions
- Coordinate Geometry in the x, y plane
- Sequences and Series
- Trigonometry
- Exponentials and Logarithms
- Differentiation and Integration
- Vectors.

## Mechanics

- Mathematical modelling
- Kinematics in One and Two Dimensions
- Statistics and Forces
- Momentum
- Newton's Laws of Motion
- Connected Particles
- Projectiles

**Lead Teachers:** Mr D Bright

**Exam Board:** EDEXCEL

## Sixth Form Entry Requirements:

To study **Level 3** (academic A Level) courses students must have a minimum of at least **five** GCSEs at 9 - 4 grades (or equivalent).

These must include a grade 4 and 5 in English Language and Mathematics (either way round, but higher grade must support subject choices).

## Additional requirements:

GCSE grade 6 or above in Mathematics, on the Higher Tier paper.

GCSE grade 8 or above in Mathematics is needed for Further Mathematics

## Assessment:

### Year 12

Two thirds Core, one sixth Statistics and one sixth Mechanics

### Year 13

Two thirds Core, one sixth Statistics and one sixth Mechanics

**Find out more ... visit our website [www.bbs.calderdale.sch.uk](http://www.bbs.calderdale.sch.uk)**

**Here to help ... speak to the course tutor or your form tutor**

**Call us on 01422 328928. Email [admin@bbs.calderdale.sch.uk](mailto:admin@bbs.calderdale.sch.uk)**

