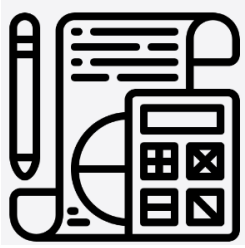
# A-Level MATHEMATICS



***Going places with Maths!***

- Apply logical approach to solving problems; learn how to identify problems and break them down into smaller parts.
- A-Level Maths can help you stay ahead in the job market, and people with a maths A-level earn 11% more over their lifetime than those without.
- A-Level Maths is a foundation for many careers, including those in science, technology, engineering, and maths (STEM), finance, medicine, and agriculture.

**Opportunities**

Mathematics students are taught by experienced, passionate subject specialists. Our students become vital assets to the whole school community by helping out in extra-curricular activities in addition to supporting in KS3 and KS4 Maths lessons; developing professional skills. Students participate in challenges (such as UKMT) and University visits for the Popular Maths Lecture and open days in addition to residential trips, to cities such as London, in order to develop rich cultural experiences and promote ambitions .

**Why study this course at Bellerive FCJ Sixth Form?**

Mathematics is a subject that is held in high esteem by job providers and universities. This subject is challenging but highly rewarding; providing students with vital skills that can be applied to a wide variety of job opportunities/career paths in ways that may be unexpected.

At Bellerive, we are passionate about providing our students with the tools they need to succeed in A Level Maths and beyond. We are a caring, experienced department who nurture students' ambitions and aim to illuminate the path to success. We know that achieving A Level Maths opens many doors to the future and strive to enable our students to utilise this, along with a well-rounded cultural experience through extra-curricular and enrichment opportunities, to guide our students to a limitless future.

"Understand well as I may, my comprehension can only be an infinitesimal fraction of all I want to understand."

*Ada Lovelace*

## What will I study?

Pure Mathematics:

Algebraic methods, Graphs and Transformations, Binomial expansion, Trigonometry, Vectors, Differentiation, Integration, Exponentials and Logarithms, Functions, Sequences and Series, Parametric equations, Iteration, Newton-Raphson method.

Applied Mathematics:

Statistics – Data collection and representation, Measures of location and spread, Correlation, Probability, Statistical Distributions and Hypothesis Testing.

Mechanics – Modelling in mechanics, Acceleration (constant and variable), Forces and motion, Projectiles

## How will I be assessed?

Three exams at the end of 2 years study. Pure 1, Pure 2 and Applied, each 2 hours long.

## What are the entry requirements?

Students are required to obtain grade 7 or above at GCSE in order to be accepted onto this course.


## What can the course lead on to?

A-level Mathematics is one of the most widely accepted and respected subject choices by universities and is likely to enhance your options rather than close them down according to Maths Careers.

Some of the careers A Level Maths can lead to are:

- Accounting
- Engineering
- Actuarial science
- Data science
- Cyber intelligence
- Acoustics
- Banking
- Economics
- Construction and trades
- Interior design

In addition, many 'non-Maths' careers look upon A Level Mathematics with extemely high regard – so Maths really can take you anywhere.

Trip to Bletchley Park October 2024