

FURTHER MATHEMATICS

WJEC A LEVEL

A Level Further Mathematics is fun and rewarding. It broadens your mathematical skills and promotes deeper mathematical thinking. You will be introduced to interesting new areas of pure mathematics such as complex numbers and apply mathematics in a wider range of contexts. Studying it is likely to improve your grade in A Level Mathematics. The extra time, additional practice, further consolidation and development of techniques contribute to improved results in A Level Mathematics.

The Course Involves:

Year One:

- **AS Unit 1 - Further Pure 1** - including Proof, Complex Numbers, Matrices, Further Algebra and Functions and Further Vectors
- **AS Unit 2 - Further Statistics** - including Random Variables and Poisson Processes and Goodness of Fit
- **AS Unit 3 - Further Mechanics** - including Momentum and Impulse, Hooke's Law, Work, Energy, Power, Circular Motion and Differentiation and Integration of Vectors

Year Two:

- **A Level Unit 4 - Further Pure Mathematics** – including Complex Numbers, Further Trigonometry, Matrices, Further Algebra and Functions, Further Calculus, Polar Coordinates, Hyperbolic Functions and Differential Equations
- **A Level Unit 5 or 6 - Further Statistics or Further Mechanics** - extending units 2 and 3 respectively

Assessment

- **Unit 1** - Written Paper - 13 ⅓% A Level
- **Unit 2** - Written Paper - 13 ⅓% A Level
- **Unit 3** - Written Paper - 13 ⅓% A Level
- **Unit 4** - Written Paper - 30% A Level
- **Unit 5 or 6** - Written Paper - 30% A Level

Particular Subjects, Skills or Interests

You must love maths. Students will require grade A/7 or above at GCSE Mathematics. You will also need to have opted for A Level Mathematics.

Post-18 Opportunities

For progression to many courses at university it is important to have strong mathematics skills. For most science, technology, engineering and mathematics (STEM) degree courses, A Level Mathematics is a requirement and AS or A Level Further Mathematics is often a preferred subject. Anyone applying to study a degree in a STEM subject should consider taking Further Mathematics to at least AS Level as the additional content helps ensure a successful progression to university. Having A Level Further Mathematics on your university application is a way to make it stand out.

Subject Leader: Mr A Bright

Subject Champions

2021/22



Edward Neale

Studying: Welsh Baccalaureate, Further Maths, Maths and Physics.
Future aspirations: to study mathematics at university.

Matthew Wright

Studying: Further Maths, Maths and Physics.
Future aspirations: to study accounting & mathematics at university.

"Having chosen further maths, along with maths, it helps with the understanding of other subjects, such as physics, and in some cases the reverse. It is enjoyable to be able to complete complex maths questions, think about them deeply and understand them. We study a greater variety of topics at A Level and we enjoy the challenges that these bring."