

# A-LEVEL MATHEMATICS



**INFORMATION** for students and parents

**2026 ENTRY** 

# **MATHEMATICS**

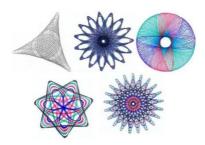
### WHY CHOOSE MATHEMATICS AT THE MAYNARD?

Maths is the most popular A-level in the UK – and for good reason. It goes with everything. Whether your strengths lie in the sciences, humanities, or creative subjects, Mathematics builds essential skills that enhance your performance across the board.

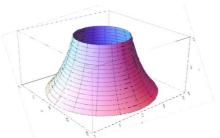
From solving real-world problems to analysing complex data, Maths trains you to think logically, work systematically, and tackle challenges with confidence. A-level Maths helps you to build a toolkit of transferable skills that are highly valued by universities and employers alike, including:

- · Logical and analytical thinking
- · Strong numeracy and problem-solving
- Confidence with abstract and complex concepts
- · Independent working and perseverance
- · Data interpretation and critical analysis

These are not just academic skills - they're life skills, equipping you to thrive in a fast-changing world.



In A-level Mathematics, parametric equations create beautiful patterns and have applications in physics, navigation, and graphic design.



Volumes of revolution, studied in Further Mathematics, have a range of applications including engineering, material design, and medical imaging and diagnostics.

# **HOW MATHS BOOSTS YOUR A-LEVEL OPTIONS**

Maths is a subject that strengthens and supports a wide variety of A-level choices. It complements both STEM and humanities subjects, making it one of the most flexible and future-proof options you can take.

Planning to study Biology or Chemistry?

Research shows that students who also take Maths or Further Maths achieve significantly higher grades across the board. It's one of the most successful subject combinations for applying to Medicine, Dentistry, Veterinary Science, and Natural Sciences.

- Thinking about Economics, Psychology or Geography? Maths enhances your ability to analyse data and understand statistical models, making your written work stronger and more evidence-based.
- Interested in Engineering or Computer Science? Maths is essential - and Further Maths is highly recommended if you're aiming for top university courses.

It's also a great choice if you're not 100% sure what you want to do next - because it keeps so many options open. And if you're taking subjects like History or Art, Maths adds academic breadth and demonstrates rigorous thinking, which can strengthen your application to competitive universities.

# WHERE CAN A-LEVEL MATHS TAKE YOU?

Maths is a facilitating subject, recognised by the Russell Group of universities as opening the widest range of degree options. It keeps your future flexible.

#### Popular University Courses Include:

- Mathematics, Statistics and Data Science
- Medicine, Dentistry and Veterinary Science Software Development and AI
- Physics, Chemistry and Natural Sciences
- Engineering (all disciplines)
- Computer Science and Al
- Architecture and Design
- Economics, Finance and Accounting
- Psychology, Geography and Environmental Science

#### Potential Careers Include:

- Engineering and Scientific Research
- Data Analytics and Cybersecurity
- Medicine and Healthcare Innovation
- Finance, Banking and Actuarial Science
- Architecture and Urban Planning
- Education, Law, and Public Policy

From robotics to climate modelling, AI to medical breakthroughs — Maths is crucial for innovation.

# **A-LEVEL MATHEMATICS**

A-level Mathematics develops your knowledge of areas such as algebra, geometry, and statistics, while also advancing exciting new topics like calculus and infinite series. Together, these enhance your problem-solving ability and analytical thinking, making Maths one of the most valuable and respected subjects you can study.

A-level Mathematics is separated into Pure and Applied sections, with twice as much Pure Mathematics as Applied. The Applied section is split evenly into Mechanics and Statistics.

The A-level Mathematics qualification follows a three-paper model, with calculators allowed in all papers.

Paper 1 Paper 2 Paper 3 Pure Mathematics 1 Pure Mathematics 2 Statistics and Mechanics (2 hours) (2 hours) (2 hours)

# A-LEVEL FURTHER MATHEMATICS

If you really enjoy Maths and want to explore it at a deeper level — especially if you're considering a STEM degree — Further Maths is a fantastic choice. Introducing advanced concepts such as matrices and complex numbers, it explores how mathematical ideas interconnect in powerful ways, and develops the building blocks needed for degrees in engineering, material science, data science, and beyond.

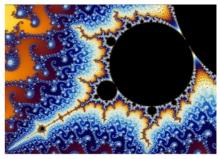
The A-level Further Mathematics qualification follows a four-paper model.

Paper 1	Paper 2	Paper 3	Paper 4
Core Pure	Core Pure	Further Pure	Further
Mathematics 1	Mathematics 2	Mathematics 1	Mechanics 1
(1.5 hours)	(1.5 hours)	(1.5 hours)	(1.5 hours)

#### MATHS OR FURTHER MATHS?

Mathematics gives you the tools to understand and shape the modern world. From the algorithms behind AI and social media to the models that drive climate science, medicine, and economics, Mathematics underpins almost every field of scientific study. It's essential for subjects like physics, engineering, computer science, architecture, and economics, and it opens doors to a huge range of careers.

Further Mathematics takes this further. giving you a deeper understanding of advanced ideas such as matrices, complex numbers, and differential equations, and exploring how mathematical concepts



The Mandelbrot set uses Pure Mathematics and Further Mathematics concepts such as sequences, roots of polynomials and imaginary numbers to create an infinite complex fractal.

interconnect in unexpected and powerful ways. These are the building blocks for degrees in engineering, material science, data science, physics, and beyond. It's challenging, exciting, and highly valued if you're considering a degree in STEM, especially by top tier universities.



MADE FOR GIRLS AGE 4 - 18

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