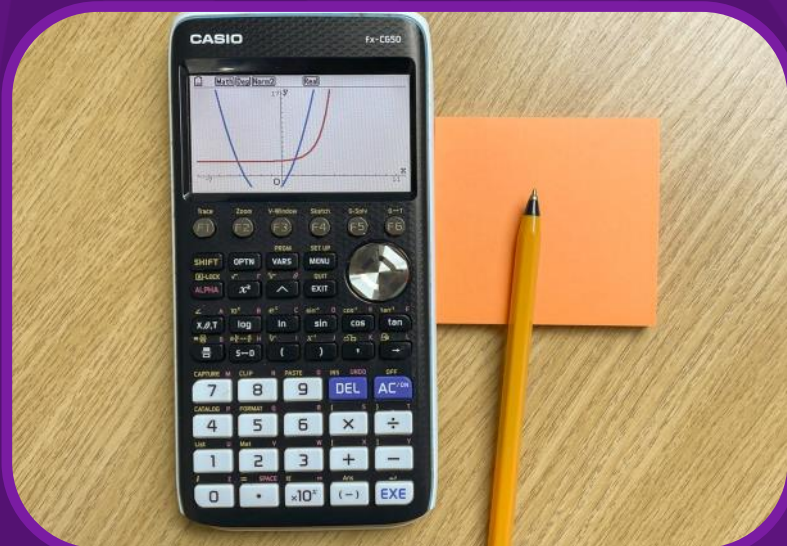# 6 SPRINGBOARD
A-Level Maths / Further Maths

ⓘ OUR COURSE DETAILS

The **Maths A-Level** Course opens up opportunities both in employment and higher education in the field of mathematics and related subjects. This course develops hardworking, organised and resilient students with strong problem solving and logical processing skills, which will be valuable for a wide variety of workplaces and HE courses.

The specification for A-Level Maths is standardised across the country, regardless of exam board. We have chosen the **AQA exam board** for the Maths A level course as the style of questioning and layout of the exam papers is one which is most accessible to our students. The order in which we cover the topics means that students see both pure and applied maths throughout all the course, with the later topics building on the knowledge from earlier ones. It also facilitates the students to study AS/A-Level Further Maths alongside the Maths A-Level course. The Maths course can lead to careers in engineering, science, actuarial sciences, statistics, finance and many more.

🖥 PREPARING FOR STUDY

Revision of algebraic skills from GCSE is a must! Make sure you can factorise, expand, simplify expressions including rational functions and work with algebraic fractions.

We can highly recommend the CPG book Head Start to A-Level Maths.

The 'Preparing for A-level Maths' sessions on YouTube with Hegarty Maths are very helpful to work through before you start

Click Here

👤 EMPLOYABILITY

There are a myriad of careers linked to Maths – you could check out a few of them at

www.prospects.ac.uk

Some careers that you may not know much about are Actuary, Software engineer and Radiation protection practitioner.

🎞 FILMS

- A Beautiful Mind
- Stand and Deliver
- Good Will Hunting
- The Imitation Game

🎓 UNIVERSITY COURSES

There are plenty of great places to study Maths at University – this is a link to the Guardian's University Guide for Maths 2020 -

www.theguardian.com

Equally there are plenty of degrees where Maths A-level is useful and sometimes essential....some of them can be found on the Maths careers link-

www.mathscareers.org.uk

📖 OUR TOP READS

- The Music of the Primes – Marcus Du Sautoy
- Fermat's Last Theorem – Simon Singh
- How Many Socks Make a Pair ? – Rob Eastaway

🌐 USEFUL ONLINE LINKS

- **Numberphile**
- **Mathologer**
- **Standupmaths**
- **Dr Frost Maths**
- **BBCIplayer: More or Less (Radio 4)**

🔗 LINKS TO THE SPECIFICATIONS

filestore.aqa.org.uk

👥 PEOPLE TO RESEARCH

The A-Level Maths course starts by revisiting some of the ideas you met at GCSE in Coordinate Geometry.

The Cartesian (x,y) coordinate system was named after **René Descartes.**
The mechanics element of the course we look at **Isaac Newton's** Laws of Motion and meet a method of finding roots of equations that he published with his friend **Joseph Raphson**.

In the second year of the course in statistics, you will meet the Normal Distribution Curve which was first discovered by **Carl Frederick Gauss**.