

MATHEMATICS

A Level

This subject will suit you if:

- You really find Mathematics an interesting and you are willing to work hard to make progress both inside and outside of lessons.
- You want to be challenged and stretched by studying more difficult topics than those found at GCSE.
- You have a logical mind and want to develop your reasoning abilities.
- You are planning to study either Mathematics or a related degree at University.



What You'll Study

- Core Maths** - You'll develop and extend your existing knowledge of topics from GCSE focusing mainly on Algebra, Number, and trigonometry. Additionally, you'll study new topics including Calculus, Series, Circle Geometry and Logarithms.
- Mechanics** – All students will study topics including Kinematics, Forces, Newton's Laws of motion and Moments.
- Statistics** – All students will study topics including Sampling, Representing Data, Probability, Statistical Distributions and Hypothesis Testing.

In the first year you will study content across Core, Mechanics and Statistics that will be at a standard equivalent to an AS Level.

In the second year you will study additional content at A2 level across Core, Mechanics and Statistics as well as the original content for AS.



A Level Mathematics can be split into two different parts:
Mechanics combines well with the Physical Sciences.
Statistics combines well with Biology, Geography, Psychology, Law, Accounting & the Social Sciences

Provisional Entry Requirements

At least a Band 6 at GCSE Maths is essential.



PARRS WOOD | SIXTH FORM

Why I chose Maths

"I chose A level maths because I enjoyed the subject at G.C.S.E. There wasn't one thing that I enjoyed the most, but I liked that it was a step up from G.C.S.E, it was more challenging. I've learnt lots of mathematical skills, but also the ability to solve problems logically. A level maths is a requirement for the degree course that I want, Chemistry, so it means a lot for my future. I would recommend maths to anyone that enjoys maths, but also likes a challenge, it isn't easy, but it's definitely enjoyable."



Ideas for Progression

Our students regularly compete in the UKMT Senior Individual and Senior Team challenges. Students can attend a UKMT club where they are trained to apply their AS/A2 knowledge to questions asked in different contexts. We have had pupils achieve very high results and being invited to sit the Senior Kangaroo, invite only, Maths Challenge. We also offer a trip to the annual North West Maths Inspiration Lectures held at the RNCM. For those students who are aiming at achieving the highest grades we offer extra support to prepare them for the STEP examinations (required by some universities) and for Maths interviews at universities.

Current Success

We have had many successes with our previous students going on to achieve top grades and attending a wide range of universities including Manchester, Liverpool, Sheffield, Bangor, Cambridge, Cardiff and courses including Medicine, Accountancy, Engineering, Zoology, Natural Sciences and Astrophysics. We are confident that we will continue to build upon our success as we embark on the new specification for A Level Mathematics.

Sample UKMT Senior Team Challenge question



Find all 4 real values of x that satisfy $(x-5)^{x-4} = 1$.

Enrichment

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Why I chose Maths

"I transferred to Parrs Wood Sixth Form in Year 13 because the Maths Department has an excellent reputation amongst others in the local area."

As well as the fantastic Maths teachers, there are great facilities which make the whole experience very enjoyable. The subject also gives me a wide range of courses to choose at university"



Parrs Wood also offers Further Maths

To find out more you can visit our website: www.parrswood.manchester.sch.uk/sixthform
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