

MATHEMATICS – A Level



“Mathematics, rightly viewed, possesses not only truth, but extreme beauty.”

Bertrand Russell

Overview

A Level Mathematics will follow on from several strands of the GCSE curriculum, and develop them further. A key thread throughout the course is algebraic manipulation, reasoning and proof, as well as further work on trigonometrical ratios, geometry and probability. There are also key new elements such as differential calculus, as well as statistical analysis and using Newton's laws to solve physical problems.

Year 12

Learn about algebra and functions, co-ordinate geometry in the xy plane, trigonometry, statistical sampling, interpreting data, further algebra, probability, hypothesis testing, Newton's Laws, exponentials and logarithms, differentiation and kinematics

Year 13

Building on previous work you will be learn about proof, partial fractions, functions, series, binomial, projectiles, further trigonometry, parametric equations, further differentiation, integration, numerical methods, regression and correlation, probability, moments, 3D vectors, normal distribution, forces and further kinematics.

Assessment method

At the end of Year 12 you will sit end of year exams, these will not count towards your final results.

There are three final written examinations at A level.

Additional information

In addition to homework you will also be expected to carry out a minimum of 5 hours independent study per fortnight in each subject studied. You will be expected to solve problems, complete exercises and complete practice exam papers.

Students require a calculator with the same functionality as the Casio Classwiz FX-991. Students will be able to purchase these through the school at the start of the course.

Course books will be made available digitally, and students will also have the option to buy a physical copy at the start of the course.

Entry requirements

Five GCSE Grade 6 to 9 including English. Students require a GCSE Grade 7 in Mathematics.

For more information contact

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Exam board

