A Level Mathematics (Edexcel)
Head of Department: Mrs G Kelly

52% A*-A in 2024

The two year course comprises of ten x one hour lessons per fortnight and is taught exclusively by Maths specialists; we are proud that the Department's expertise allows students to make a seamless transition from GCSE to the A Level course. The popularity of the subject allows us to offer it on multiple option lines.

All examination boards now offer the same 100% core material and this comprises of topics in Pure Mathematics, Statistics and Mechanics.

Pure Mathematics topics:
- Proof
- Algebra and functions
- Coordinate geometry
- Sequences and series
- Trigonometry
- Exponentials and logarithms
- Differentiation
- Integration
- Vectors
- Numerical methods

Topics in Statistics:
- Statistical sampling
- Data presentation and interpretation
- Probability
- Statistical distributions
- Statistical hypothesis testing

Topics in Mechanics:
- Quantities and units in mechanics
- Kinematics
- Forces and Newton's laws
- Moments

About two thirds of the work will consist of topics in Pure Mathematics and the remainder will comprise the applications of these to Statistics and Mechanics.

Examinations
Students will sit internal examinations throughout the course and three external examinations will be taken in the summer of Year 13. To reflect the balance of topics studied, these will comprise of two papers in Pure Mathematics and one which will be split between Statistics and Mechanics. Each paper will be worth 100 marks and will take two hours, giving a maximum 300 marks over the 6 hours. Calculators are allowed in all papers.

General
A Level Mathematics is an excellent companion for a wide range of other A Level courses, either for its rigour in supporting the Sciences and Social Sciences or because it offers a logical way of thinking; students who include Biology, the Arts subjects or the Social Sciences in their A Level choices will tend to find that Statistics supports them while those who choose Physics, or who wish to follow an Engineering career, will find that studying Mechanics complements their studies. Mathematics is highly valued by universities and employers as evidence of students' logical and problem solving abilities.

Entry requirements
For entry to Mathematics at A Level, the minimum requirement is a Grade 7 obtained at GCSE, however a grade 8 or 9 is desirable as this creates a stronger foundation to build on for the A Level course. GCSE topics will become the baseline for the A Level course.