What is the course about?

A Level Mathematics gives students the opportunity to study topics such as geometry, calculus and trigonometry (pure mathematics) and to use these ideas within the 'applied' topics such as mechanics and statistics.

Course content

- **Pure Mathematics – ** mathematical argument, problem solving, proof, algebra, graphs, sequences, logarithms, trigonometry, calculus, functions, numerical methods, vectors and differential equations

- **Statistics – ** working with a large data set to make inferences about the underlying population, probability calculations, using the Binomial and Normal distributions and statistical hypothesis testing

- **Mechanics – ** kinematics, working with forces and Newton's laws, motion under gravity, friction, projectiles and simple moments

Assessment

Three terminal examinations.

Career pathways

Study maths, engineering, physic related degree courses at higher education.

Employment opportunities: analyst, actuary, accountancy, scientist, statistician, systems developer.

Entry criteria

Minimum of five 5 to 9 grades at GCSE, including at least grade 6 GCSE in Mathematics.

MATHEMATICS A LEVEL