MATHEMATICS

EXAM BOARD: EDEXCEL   COURSE DURATION: 2 YEARS
The course comprises two thirds Pure Mathematics and a further two modules in Applied Mathematics. The topics in Pure Mathematics are a mixture of the familiar and unfamiliar. There is plenty of algebra including quadratic and simultaneous equations together with trigonometry, coordinate geometry and graphs. Applied Mathmatics is made up of Mechanics and Statistics.

WHAT DOES 'MATHEMATICS' MEAN TO YOU?

Is it the study of patterns? Or is it a way of making new relationships between ideas such as graphs and algebra? Do you see Mathematics as a human activity that forms part of our culture? Perhaps it is a way of illuminating the relationships we see in the world around us?

Familiar topics such as Algebra and Functions, and Co-ordinate Geometry are studied alongside new topics including Sequences and Series, a wider view of Trigonometry, and Differentiation and Integration together known as Calculus. We add new topics such as Numerical Methods and an extension of Vectors which you may be familiar with from GCSE.

Alongside these areas of Pure Mathematics you will study:

MECHANICS - The Mathematics used to study the physical world, modelling motion of objects and the forces acting on them. This includes Newton's First, Second and Third Laws.

STATISTICS - This involves data presentation and probability, both of which follow on from topics at GCSE. This leads to the study of statistical distributions with special properties such as the Normal Distribution.

TEACHING & LEARNING METHODS

Students will be taught be specialist teachers and experience a wide variety of lesson activities such as investigation, group tasks and individual study. Students are expected to complete frequent homework tasks and are tested on a regular basis.

ASSESSMENT INFORMATION

The course is assessed by three external exams at the end of Year 13.

SUBJECT COMBINATIONS

A-level Mathematics works well alongside subjects that have some degree of mathematical content such as the Sciences, Accounting, Computer Science, Geography and Psychology.

CAREERS/HE INFORMATION

The skills developed through the study of Mathematics are in high demand from employers and Universities. In addition to developing the ability to solve problems and think logically, the study of Mathematics provides opportunities to develop team-working skills, resilience, effective communication of complex ideas and the ability to use your own initiative. A wide range of degree courses are open to students with A-level Mathematics. Mathematics, Physics and some Computer Science degrees require this subject.