Exam Board: Edexcel

Aims of the Course

- Extend their range of mathematical skills, and techniques and use them in more difficult unstructured problems.
- Recognise how a situation may be represented mathematically and understand the relationship between 'real world' problems and standard and other mathematical models and how these can be refined and improved.
- Use mathematics as an effective means of communication.
- Develop an awareness of the relevance of mathematics to other fields of study, to the world of work and to society in general.
- Take increasing responsibility for their own learning and the evaluation of their own mathematical development.

Types of Learning Experience:

The course content is delivered through lectures, classroom discussion, practical activities and use of IT.

Link Subjects:

Mathematics may be taken with any other subjects and it is particularly valuable to Economics, Business Studies, Physics and Chemistry.

Progressing to Higher Education:

The problem solving skills and the ability to tackle tasks logically gained from maths, make mathematics relevant to many subjects at Higher Education and university. Mathematics is a highly recognised Advanced Level subject for entry to University and Higher Education and it is a useful stepping stone to Engineering, Sciences, Computing and Business related subjects.

Careers:

Mathematics is especially relevant to those wishing to pursue careers in Finance, Business, Research, Engineering, Education, Accountancy and IT

Year 1 Students will cover the following topics:

Pure Mathematics

- Algebra
- Polynomials
- Coordinate geometry and graphs
- Differentiation
- Trigonometry
- Sequences and series
- The Binomial Expansion
- Integration
- Logs and Exponentials

<u>Assessment</u>

All assessments are completed at the end of year 2

Mechanics

- Force as a vector
- Equilibrium of a particle
- Kinematics of motion in a straight line
- Newton's laws of motion

Statistics

- Representation of Data and Sampling
- Probability
- Distributions
- Hypothesis Testing

Entry requirements:

A minimum of 5 grades 9-4 at GCSE including English. You must have a GCSE grade 7 or above in Maths

