A Level Mathematics

Why this subject?

A-Level Mathematics is an interesting and challenging course which extends the methods you learned at GCSE and expand to include the application of mathematics in Mechanics and Statistics. It is a genuine and versatile subject to study and can lead to careers in a variety of areas such as insurance, medicine, engineering and the sciences to name but a few. It is a subject that develops logical thinking and analytical and problem-solving skills.

Course Outline

The course is divided in to "Pure" and "Applied".

Pure units consist of fundamental knowledge such as: Algebra, Number, Trigonometry, Calculus, Exponentials and Logarithms and Vectors.

Applied breaks down into Statistics and Mechanics. In Statistics you study topics such as Collecting, Representing and Interpreting Data, Probability and Discrete Random Variables and Standard Deviation.

In Mechanics you study Kinematics, Forces, Newton's Laws, Moments, and Variable Acceleration. This closely follows Mechanics in A-Level Physics

Assessment Outline

The course is assessed via three examinations. Each paper is two hours in length and represent 33.33% of the qualification. Each paper is marked out of 100.

Papers 1 and 2 contain questions from the Pure topics from across both the year 12 and 13 course content.

Paper 3 covers the Applied topics from Statistics and Mechanics and is split in to two sections. Section A covers Statistics and Section B covers Mechanics.

Students must answer all of the questions and calculators are required for all examinations.

Careers and next steps

Mathematics is a versatile qualification, well-respected by employers and it is a "facilitating" subject for entry into higher education.

Careers for anyone with good mathematical skills are not only well paid, but they are also often interesting and rewarding. People who have studied Mathematics are in the fortunate position of having excellent career choices. Whilst the number of young people choosing to study A-Level Mathematics is increasing, there is still a huge demand from Science, Engineering and Manufacturing employers.

The mathematical skills you learn in A-Level Mathematics are of great benefit in other A-Level subjects such as Physics, Chemistry, Biology, Computing, Psychology, Economics and Business Studies.

Key Information

Exam Board	Edexcel
Qualification Type	A Level
Entry Requirements	A-Level Pathway (Grade 7 at GCSE)
Head of Department	Mrs Willerton