

Mathematics	
Teacher in charge of subject	Mrs A Sutch
Type of qualification	A level
Exam board and subject code	Edexcel 8MAO
Entry requirements	
Specific subject requirement	Grade 7 in GCSE Mathematics
Course details	
<p>A level Mathematics supports the study of a wide range of other A level subjects. Physics, Chemistry, and Biology rely on good algebraic and graphical skills, statistical techniques, and the use of a range of functions including logarithms and trigonometry. In addition, Economics, Psychology, Business, Computing and Geography all benefit from students having fluent and confident numerical, algebraic, graphical, and statistical skills.</p> <p>Two thirds of the course is Core Mathematics and one third is Applied. Core Mathematics includes topics such as Algebra, Trigonometry and Calculus. If you enjoy problem solving and are keen to further your experience of Pure Mathematics, you will enjoy this part of the course.</p> <p>The Applied topics give you the chance to use your mathematical skills in real-life situations. Applied is split into two sections Mechanics and Statistics each with the same weighting. Mechanics is the mathematics used to study the physical world, modelling the motion of objects and the forces acting on them. This includes moments, where the turning effect of a force is considered. Statistics involves statistical sampling, data presentation and probability, all of which follow on from topics met at GCSE, leading to the study of statistical distributions with special properties, such as the Binomial Distribution.</p> <p>Students are expected to use technology such as graphical calculators, graphing software and spreadsheets throughout the course.</p>	
Assessment	
<p>There are three two hour papers.</p> <ul style="list-style-type: none"> • Papers 1 and 2 are Pure Mathematics (Core) each paper is worth 33%. • Paper 3 is Statistics and Mechanics and is worth 33%. <p>A calculator is allowed for all three papers and there is no coursework element.</p>	
Career options	
<p>Whatever Mathematics means to you, the breadth of applications is immense. Mathematics underpins most of science, technology and engineering and is also important in areas as diverse as business, law, nutrition, sports science and psychology. There are many opportunities to use mathematics to make a difference in society, for example through the analysis involved in medical research, developing new technology, modelling epidemics or in the study of patterns of criminal activity to identify trends.</p> <p>Many areas of employment see Mathematics A Level to be an important qualification. Higher Education courses and careers which require or strongly recommend A Level Mathematics include: Accountancy, Architecture, Economics, Engineering, Environmental Studies, ICT, Medicine, Psychology and Teaching. Mechanics has links with Sports Science as well as Physics/Engineering. Statistics fits Business/Commerce, Insurance/Actuarial work.</p>	