

Mathematics

A Level Mathematics is a course for anyone wishing to build on their GCSE knowledge. The course begins with familiar topics such as indices, surds, factorising quadratics, graph transformations trigonometry and inequalities. Then students will look at new topics such as differentiation and integration, logarithms and the discriminant of a quadratic.

As well as the pure elements students will also look at Statistics and Mechanics. The statistics includes the binomial and normal distribution, mean, median, mode, range and standard deviation. Many of these skills are used in Geography, Sociology and other social sciences.

On the Mechanics side, students begin with looking at SI units, then introduce 'SUVAT' equations which link displacement, velocity and acceleration. This is followed by using velocity – time graphs and finally using the calculus learnt on the pure side to calculate variable acceleration.

HOW WILL I BE ASSESSED?

It is possible to take an AS in A level Mathematics which is assessed by 2 papers which last an hour and a half each. The first paper is on some of the pure topics and the Statistics element, the second paper is on the rest of the Pure and the Mechanics topics.

For the full A level there are three papers, each of which last 2 hours. The first is on Pure topics, the second is Pure and Statistics and the third one is Pure and Mechanics.

HOW WILL I BE TAUGHT?

In lessons students will use a range of resources such as textbooks, graphical calculators, graph plotting software, use of the 'large data set' which is some of the data from the last 2 censuses and will undertake some practical mechanics experiments using pulleys, timers and weights.

WHY STUDY IT?

The course is particularly helpful for students studying Physics, Computer Science, but many of the topics covered will help with social sciences, Chemistry, Biology, Economics, Business and Engineering.

Some of our students who have studied A level Mathematics have gone on to study, Mathematics, Computer Science, Environmental Science, Medicine, Dentistry, Engineering, Biology or Architecture or find apprenticeships in a range of fields from Mechanics to Energy Production.

A Level

Board: OCR

2 Year Course/AS Option Available

ENTRY REQUIREMENTS

Our entrance requirements are 6 GCSE/ BTEC passes at Grade 4 (or equivalent) or above. It is also desirable for students to achieve a Grade 5 or above in the subject (or related subjects) that they wish to study at Sixth Form.

If you would like to study Maths, Biology, Chemistry or Physics at A Level it is desirable for you to achieve a Grade 6 or above in the subject you wish to study.

FOR MORE INFORMATION ON THIS SUBJECT

It is essential that you discuss your subject choices fully with teachers and parents.

The subject page is available to view below.



Contact Mr Adams
radams@kesgrave.suffolk.sch.uk