## **Mathematics and Further Mathematics**

Examination board: Edexcel

## Mathematics

Mathematics in the KES Sixth Form consists of a blend of Pure Mathematics, Mechanics and Statistics.

Pure Mathematics is the core part of the course. It involves a further study of the algebra, trigonometry and vectors begun in the lower school, and rewards confidence and accuracy in pupils' algebraic skills. The theory, techniques and methods learned in this part of the course develop Maths to be the language of problem solving, developing pupils' ability to solve abstract problems which are to be used elsewhere. Most pure maths at this level is either Calculus or is in the service or future Calculus, whilst mathematical modelling of real situations is also developed. Different in tone from IGCSE, this course increasingly rewards your understanding of the Maths above the ability to repeat mathematical algorithms.

Mechanics analyses simplified models of the physical world, particularly those associates with movement. The forces causing and affecting motion are considered and predictions about subsequent actions can be made.

Statistics studies methods of collecting, displaying and analysing data about the physical world. Skills acquired at GCSE are extended to deal with more complex problems.

The final assessment for A Level Mathematics consists of three papers each lasting two hours. Two of the papers examine Pure Mathematics and the third paper is an applied paper of Mechanics and Statistics. A link to the specification is given <u>here</u>.

## **Further Mathematics**

Further Maths is an additional A Level, which needs to be selected alongside A Level Maths. No university course is disappointed to see the study of Further Maths, since the resilience, attention to detail and rigorousness that study of the subject to this level engenders will transfer to all programmes. The rigour, algebraic depth & development of Mathematical and modelling techniques (mostly with respect to Calculus) are also highly valued by many courses and careers.

Which modules we sit, how many we cover and the allocation of teachers will be determined shortly.