

MATHEMATICS A LEVEL

Subject Leader: **Mr Appiah**

Syllabus: **Edexcel**

Course Specification : **8371/9371**

Course Overview

A level Mathematics is an interesting and challenging course which extends the methods you learned at GCSE and includes optional applications of mathematics, such as Statistics, Mechanics and Decision Mathematics. An A Level in Mathematics is highly respected among universities and employers. A Level Mathematics will give you transferable skills for the real world. Most notably logical skills, analytical skills and the ability to problem solve.

Course Requirements

5 GCSEs grades 9 – 5 including English grade 5 and Maths at grade 6.

You will study Pure Mathematics (67%) alongside Statistics and Mechanics (33%). This will lead to an A Level Mathematics qualification at the end of year 13. All the content is compulsory, and require the use of a scientific calculator.

Pure Mathematics

Similar to the content of the Core 1 to 4 of the old specification, the new specification (2017) specification Pure Maths consists of Algebra, Functions, Sequences and Series, Proof, Coordinate Geometry, Trigonometry, Exponentials and Logarithms, Differentiation and Integration, Vectors and Numerical Methods.

Statistics

You will be studying statistical sampling, data presentations and interpretation using such statistical diagrams as histograms, scatter graphs and calculations as mean, variance, standard deviation, quartiles and percentiles; and statistical distributions as normal and binomial distributions. There is also a new content on hypothesis testing.

Mechanics

The mechanics content involves the study of motion of objects including displacement, velocity, acceleration, forces, Newton's Laws and moments.

Assessment Information

You will be assessed on the above content by means of three 2 hour papers, each 100 marks at the end of the 2 year course. All three papers will be taken in May/June of the same year. Paper 1 covers all the Pure Maths content to AS level. Paper 2 covers all the Pure content to A2 level. It should be noted that all the content from Paper 1 is assumed knowledge in Paper 2 and therefore can be assessed in the latter. Paper 3 is the applied paper (Statistics and Mechanics). The weightings of the 3 papers are equal..

Teaching and Learning Styles

The main body of knowledge and skills will be taught through teacher-led sessions. In addition, students will be given a range of challenging enrichment activities and encouraged to share their knowledge and skills with the class and to support each other in their learning.

Independent study

Students are expected to complete an hour of independent study for every hour that is taught.

