The Mathematics Department   **July 2017**

The Mathematics department is currently made up of 6 full time and 1 member of SLT, all of whom are mathematics specialists and together form a strong team. All members of the department are highly professional, very hard working people who set high standards for themselves and their students. Everyone is expected to contribute to the smooth running of the department and to work closely with each other sharing resources and best practice.

The department is run to maximise the amount of time teachers can spend on preparing and delivering lessons.

Student numbers

Currently, there are approximately 120 pupils in 1st and 2nd form, which increases to 130 in 3rd form-5th form. In the Lower Sixth there are about than 90 students taking AS Mathematics and in the Upper Sixth about 70 students taking A2 Mathematics; of these there are about 12 students taking Further Mathematics.

Teaching time

In Key Stages 3 and 4, each class has 5 periods out of a 40 period week. At AS level, 7 periods per week are allocated and at A2, 8 periods.

Accommodation

There is a purpose built Mathematics and Engineering block that houses 5 classrooms used almost exclusively for the teaching of mathematics. There is also an office that is shared by all members of the department.

Textbooks

Throughout the school, students have access to a range of resources and textbooks. Homework books are available to all students.

In 1st and 2nd form, the CIMT materials form the basis of the course

At GCSE (3rd-5th form), pupils follow the Higher GCSE Maths 9-1 (Elmwood Press).

The students studying for GCSE Statistics use Key Maths for GCSE Statistics and the Edexcel recommended text (Pearson)

For the Sixth form students use one of the OCR modular books as well as C3 C4 (Cambridge University Press) Pure Mathematics (Elmwood) in the Upper Sixth.

Organisation of Classes

At present, the 1st year classes are taught in mixed ability groups. All pupils follow the same scheme of work and take common assessments.

From the 2nd year, setting is introduced, with two parallel alpha sets and three middle sets, two of which are parallel. These sets are continued into the 3rd year.

From 4th year onwards, there are no longer parallel sets. All classes follow the OCR 9-1 course. In addition, alpha1 students take the Edexcel GCSE in Statistics and the AQA Level 2 Certificate in Further Mathematics while the latter qualification is also taken by those students in set alpha2.

In the Sixth form, the OCR course is followed for Mathematics and Further Mathematics. The new A level does not allow for choice in the Mathematics course but in the Further Mathematics course, the department has opted for the mechanics and statistics options.

Each year several students go on to study mathematics or engineering courses at Oxbridge or Russell Group universities.

Outcomes

		2015	2016
GCSE	A* - A	70%	81%
	A* - B	88%	97%
	A* - C	99%	99%
AS	A - B	69%	71%
A2	A* - B	72%	75%

Technology

All the mathematics classrooms are equipped with an interactive whiteboard. Although the department does not have its own dedicated suite of computers there are three networked rooms that can be booked. Software packages such as Autograph, Geometer's Sketchpad, Boardworks are regularly used as well as many others. The department is registered for MyMaths.

Each pupil is expected to have their own scientific calculator and some A level students have their own graphic calculator. The Mathematics department owns a class set of Texas T183 graphic calculators.

Competitions and Extra Activities

- Pupils regularly enter for the UKMT challenges at junior, intermediate and senior levels as well as the Team Challenge.

- UKMT Maths Team challenges

- Games Club and Chess Club are also run by members of the maths department

Mr Neil White
Head of Mathematics