Mathematics KS3

In important aim in the mathematics department is that each student, on leaving school, is numerate, has sufficient mathematical skill for the career of his/her choice, and understands the mathematics likely to be encountered in everyday life.

In all key stages students are internally assessed six times a year. Feedback is given to the student for all of these and remediation takes place to address areas of misunderstanding.

Set changes take place as appropriate, both throughout and at the end of the year.

Homework is set twice a week, one from a homework book and the other on Hegartymaths. Hegartymaths is used via the internet and students are supplied with the necessary log in details. This site is also a valuable site for students to use for revision as it has many questions to practice and teaching videos to assist students in their learning.

It is expected all students will arrive at mathematics lessons equipped with a pen, a purple pen, a pencil and a ruler but for mathematics it is useful if students also have a pencil sharpener and eraser and a scientific calculator. In lessons, we do lend students a calculator but it is important that students have their own and learn how to use it by bringing it to all lessons as calculators do not all work in the same way.

To enhance students' enjoyment and appreciation of mathematics, quizzes and activities involving the use of maths in real life situations are regularly used and from September 2018, there will be a new maths club.

Year 7 and Y8

During Year 7, students strengthen their knowledge and ability in the core areas of number, algebra, ratio, proportion and rates of change, geometry and measures, probability and statistics.   Lessons will include an element of consolidation and of stretch and challenge as appropriate and these will enable students to develop recall and retention skills and problem solving ability.

From September, students are placed in ability sets and work on topics at an appropriate level according to their ability. At all times, the larger picture is kept in mind so all the maths studied supports the desired final outcomes in Y11.

Mathematics KS4

Mathematics is a compulsory subject as it is an essential life skill. It also supports the learning in many other subject areas.

Year 9 to 11

In September, Year 9 students start their GCSE course for which the foundations will have been put in place in Year 7 and Year 8. Again, students will study several areas of mathematics; number, algebra, ratio, proportion and rates of change, geometry and measures, probability and statistics. Students will continue to work in setted classes according to ability and outcomes on previous assessments.

Each set will follow an individual scheme of work, targeting specific GCSE grades from 1 – 9; grade 9 being the highest. Students sit either the higher or the foundation tier and this is determined by their progress and ability to master the skills required, as evidenced in lessons and on assessment tests.

Assessments are held 6 times in each of the three years. Following each assessment, feedback is given to each student and remediation takes place in all areas with less than expected performance.

This information will enable the teacher to ensure students are entered for the GCSE tier that will enable them to achieve the best grade they can.

The mathematics GCSE exam consists of three papers; the first a non-calculator and in the remaining two a calculator is allowed.

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Homework will be on Hegartymaths, using the internet, and there will also be a skills check booklet to complete a section of each week. These homeworks will be used to revisit and consolidate learning in previously taught topics so enhancing the ability for students to retain the learning and recall it when necessary.

To enhance students' enjoyment and appreciation of mathematics, quizzes and activities involving the use of maths in real life situations are regularly used and from September 2018, there will be a new maths club.

Exam Board: Edexcel
Specification: 1MA1

Mathematics KS5

A level mathematics is a challenging and rewarding subject to study that brings an insight to how the world in interpreted and why we study the maths we do.

The A level in mathematics is a two year course of study working towards three examinations at the end of Year 13 upon which the A Level grade is awarded. Throughout the two year course regular progress assessments take place.

The course consists of pure, mechanics and statistics and these are taught concurrently over the two years. Students will need to be in possession of a CASIO CLASSWIZ calculator for use in statistics. This calculator will also be appropriate for the pure and mechanics elements. Please contact the maths department if you require any other information about this.

The mathematic skills and understanding used in GCSE mathematics are extended at A Level and at A Level we see the introduction of calculus which is a main area of mathematics. It is expected students who join the A Level mathematics course will have shown, at GCSE, they are able to access the higher level content.

The techniques and understanding of mathematics developed whilst studying A Level mathematics do support many other subjects. To support students in creating a greater interest in mathematics they are encouraged to read around the subject. The Code Book, Fermat's Last Theorem and The Mathematical Tourist are examples of accessible insights into the history and journey of mathematics.

Preparing to Study A Level Mathematics

As students will not have studied mathematics in the period of time from taking the GCSE exam to beginning A level study, it is advisable students remind themselves of some of the areas of GCSE mathematics that link to A Level.   With that in mind please find on this website a link to 'Preparation for studying A Level Mathematics' .

Exam Board   AQA

A Level Mathematics   7357

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