

## Mathematics and Statistics

The department consists of a team of enthusiastic, qualified and experienced Mathematics teachers whose aim is to bring Mathematics and Statistics alive – stimulating a genuine interest in the subjects. These lessons are delivered in one of four well-equipped dedicated Mathematics classrooms.

All pupils in years 7-11 follow the National Curriculum for Mathematics. At GCSE level, pupils in years 9, 10 and 11 follow the Edexcel Level GCSE (9-1) in Mathematics. The GCSE examinations have tiered Foundation and Higher entry levels to cater for pupils of all abilities. Pupils begin the course in year 9. The foundation tier is aimed at levels 5-1 and the higher tier is aimed at levels 9-5.

Pupils in years 10 and 11 can also follow a GCSE Statistics course. The tiers are the same as for Mathematics. The examination board is AQA.

As a department we set pupils according to their mathematical ability from year 7. Pupils are assessed half termly and this directly relates to the recognition of each pupil's progress ensuring that pupils work to their ability and are stretched to extend their development. Homework is set regularly on a weekly basis and is handed in the next day for assessment.

In years 7 and 8 pupils follow a two year accelerated programme covering topics in line with the National Curriculum. As an independent school we have the flexibility to tailor the course according to our pupils' needs ensuring that they are ready to commence their GCSE course in year 9.

The importance of mathematics to the individuals' life today and in the future cannot be underestimated. A sound knowledge and understanding of the applications of the subject in the home, to science and technology as well as business, commerce and industry is clearly in evidence in everyday life. The communication of information through the use of diagrams, tables, graphs and symbols demands the ability to read and interpret information. Mathematics is therefore a problem solving activity which requires the interpretation of a comprehensive network of interrelated ideas; it requires flexibility of mind, initiative and imagination.

The mathematics team aims to enable each individual to enjoy Mathematics, to develop pupils' mathematical skills and understanding to their full potential, regardless of academic ability, gender or ethnic background. The aim is to develop the confidence of the individual in their ability to do mathematics and to give pupils breadth and depth of experience. This can be achieved through providing mathematical activity using a variety of approaches to emphasise the broad range of applications of mathematical knowledge and understanding as a single subject, across the curriculum and the world beyond school.

In addition to providing pupils with a good, sound mathematical education we aim to foster the personal skills essential to the study of mathematics. These include - the ability to work systematically, to persevere in tackling and solving problems, to work independently and follow their own line of enquiry, to work cooperatively and to make contributions to group tasks through the discussion of mathematical ideas and communication of results in a variety of forms.

Every pupil deserves our best efforts and attention. By encouraging positive attitudes towards mathematics and high expectations of each individual academically and personally, we can affect the pupil's attainment in mathematics. The department runs lunchtime support classes throughout the week where staff are available for pupils to receive support and enrichment. Pupils' mathematical experience throughout their pre sixteen education will affect their performance at sixteen and beyond. To this end we should regularly evaluate the opportunities we offer our pupils, our teaching methodology and assessment procedures. The mathematical team should aim to work together, to have confidence in the approaches being adopted and the experience being presented to the pupil.

All pupils are involved with the Annual Inter-House Pi Competition. Additionally, we encourage participation in the UK Maths Challenge Competition which particularly challenges the more able pupils. We also offer puzzle days and work with the STEM initiative to further encourage enrichment opportunities in Mathematics.