Mathematics Department

Departmental Staff and Resources:

There are currently ten teachers in the department. All full time teachers have their own Mathematics room
The Department is well resourced and situated in a suite of adjoining classrooms, organised around a central office and large resources store. Each classroom is equipped with an interactive whiteboard.
All department members have access to MyMaths, Mathswatch and other online resources.

Curriculum Summary: Year 7 & 8 (8 set groups)
In Year 7 pupils are placed into sets based upon the KS2 Maths SAT test level.
In Year 8 pupils are placed into sets based upon their end of Year 7 examination result. The sets are reviewed twice in the year – at the October and February half term assessment windows.

The curriculum across Years 7 & 8 covers the following broad subject headings:

Number e.g. written methods of calculation, fractions, decimals, percentages, types of numbers etc. Algebra e.g. notation, substitution, solving equations, graphs etc.
Ratio, Proportion and rates of change e.g. units of measure, ratio and related problems, speed etc. Geometry and measures e.g. area, volume, shape and their properties, congruence etc.
Probability e.g. probability of events occurring, Venn diagrams, sample space diagrams etc. Statistics e.g. record and represent data

Year 9 (8 set groups – 6 at Higher, the remainder at Foundation)
Year 10 & 11 (10 set groups - 8 at Higher the remainder at Foundation)

Edexcel GCSE Mathematics Linear is studied.
The curriculum covers the same broad headings as in Years 7 & 8 but extends the learning to a higher level.

For those students who find access to the GCSE course challenging, a decision may be made to enter them for the Edexcel Certificate in Maths (Levels 1, 2 & 3) before making a decision on entry to GCSE.

Year 12 (2 or 3 teaching groups) & 13 (2 or 3 teaching groups) Edexcel A Level Mathematics is studied.

In Year 12, students study:
Core 1 e.g. Algebra & functions, Coordinate geometry, Series, Calculus
Core 2 e.g. Extending the topics listed above, Trigonometry, Logarithms
Decision Mathematics e.g. Algorithms, Networks, Linear Programming, Route Inspection, Critical Path Analysis

In Year 13, students study:
Core 3 e.g. Algebra & functions, trigonometry, exponentials & logarithms, calculus, numerical methods
Core 4 e.g. Extending topics listed above, the Binomial series, vectors
Statistics e.g. Representation and summary of data, probability, correlation & regression, discrete random variables, the Normal distribution

Mathematics Department Cont.

Student Performance summary:

KS4
In 2016 the Mathematics element of P8 was +0.27 which was significantly above the national average and in the top 25% of schools in the country.

Mathematics made a significant contribution to the overall P8 score of +0.20 which again was in the top 25% of P8 scores. 77% of GCSE students achieved A* - C in Mathematics and 28% achieved A* - A, considered significantly above the national average.

KS5
In 2016 the A level pass rate was 92% with 83% of grades being A* - C