SUBJECT - Maths

Subject overview:

During mathematics lessons throughout key stage 3 and 4 students study a range of topics based on the key content areas of Number, Algebra, Geometry and Measures, and Statistics. The level of work is based on students' prior attainment and their targets, this allows teachers to plan activities to address any gaps in understanding, build on previous knowledge and reinforce and deepen students' skills and mathematical knowledge. Problem solving tasks are used to develop students' ability to use their skills to solve problems in unfamiliar contexts.

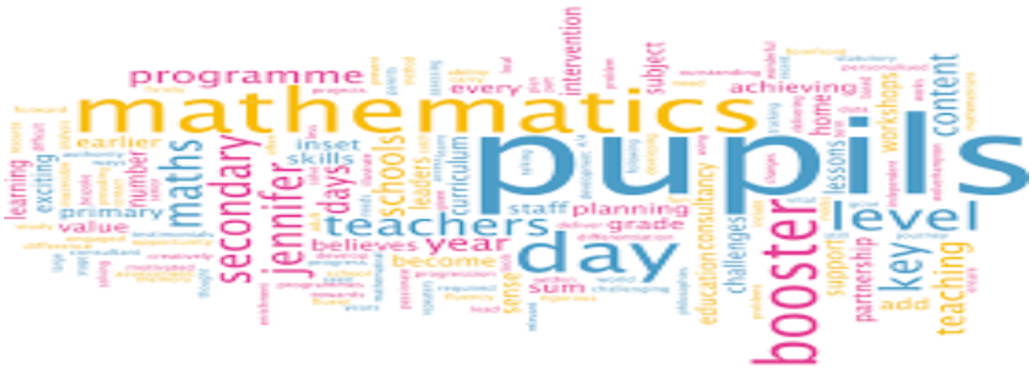
KS3:

We follow the White Rose Maths Scheme of work. Key topics studied across key stage 3 are:

- Algebra – using equations and formulas to solve more complex problems.
- Angles and Polygons – describing the properties of 2D and 3D shapes.
- Area, perimeter and volume – using a range of formulas with different shapes.
- Calculations – using written methods and efficient use of a calculator.
- Graphs – using coordinates and graphs to explore mathematical functions.
- Properties of numbers – building on times tables to understand factors, multiples and prime numbers.
- Proportional reasoning – fractions, decimals, percentages and ratios.
- Sequences and patterns – exploring and describing a range of number and shape patterns.
- Symmetry and Transformation – Using reflection, rotation, translation and enlargement to transform shapes.
- Statistics – using diagrams and averages and to analyse and compare data.
- Probability – understanding chance and calculating the probability of events

KS4:

In key stage 4 we follow the AQA syllabus. The Mathematics course offers two tiers of entry, Foundation and Higher. Students are set by ability with regular assessments used to judge progress and inform of any early interventions. All students study for the GCSE and a some students, who find Mathematics very challenging, are also entered for an Entry Level Certificate in Mathematics and Functional Skills Mathematics.

GCSE Mathematics is assessed by three terminal exams. All the exams cover a range of content – Number, Ratio and Proportion, Algebra, Geometry and Statistics. In Paper 1 a calculator is not allowed, whereas in Papers 2 and 3 a calculator is allowed.

There is no coursework. Exams are taken in the summer term at the end of Year 11.