



Mathematics

“Mathematics expresses values that reflect the cosmos, including orderliness, balance, harmony, logic, and abstract beauty.”

Deepak Chopra

Course content

In Year 9, pupils finish the Key Stage 3 curriculum around November, then move onto Key Stage 4, where they do either the Higher or Foundation course, as appropriate to each pupil, though there is always scope to move between the two. Pupils will have much opportunity to develop their problem solving skills, which are of prime importance in the new curriculum.

Topics taught build sequentially upon what has been taught at Key Stage 3, and, as time goes on, what has already been taught at Key Stage 4. Ensuring pupils understand the links between core areas of Mathematics is especially important to our department, and so all topics are taught with this in mind.

Pupils are prepared for their GCSE qualifications via a set of **Pre-Qualification Expectations (PQEs)** that focus on key areas and skills needed ahead of GCSEs. Some of the PQEs are listed below, but pupils are advised to start their exam preparation early and speak to their teachers for further information.

Skills Developed

- Reasoning and deduction
- The ability to decipher a problem and apply the correct method
- Proficiency with scientific calculators and other mathematical equipment

For more information

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PQEs for Year 9

- Apply Pythagoras Theorem to solve functional problems
- Understand and use the rule for angles in parallel lines and angles in polygons
- Be able to estimate calculations effectively
- Find the volume of prisms
- Understand and use the relationships between compound measures (eg speed, distance and time)
- Be able to rearrange formulae

