

Mathematics

Curriculum Intent

Mathematics is vital in everyday life. Our aim is to improve students' understanding of the purpose of Mathematics both in their school journey and throughout their lifetime. This five-year journey provides a clear vision of how mathematics forms the cornerstone of modern existence and how, with a good understanding of the laws of mathematics, we can accomplish exceptional things.

Students will develop a love of mathematics, an eagerness to tackle challenges, and the passion to pursue the subject beyond GCSE, within a supportive yet challenging environment where students believe that they can achieve.

Carnforth High strives to achieve this vision embodying mathematical skills in line with the school values: *Confidence, Purpose and Respect*.

We dispel negative perceptions of mathematics as complex, elitist and inaccessible, fostering confidence through a curriculum bursting with the skills and knowledge to create numerate learners who possess a 'toolkit' of mathematical skills needed for the rest of their lives. These learners are confident to use mathematics to solve problems in school and in real-life situations; they understand and interpret mathematical information and fluently translate between forms. Learners develop patience, reasoning, resourcefulness, and persistence becoming logical thinkers and able problem solvers.

Students will recognise that mathematics is all pervasive and significantly impacts all facets of life. We build on this, showing students' the importance and purpose of mathematics, by exemplifying how maths is used in everyday life and work, linking with STEM subjects, careers advisors, and industry.

Through team work and problem solving, students learn to respect one another and work together towards common goals. Students will develop the knowledge, attitudes and skills necessary to prepare them for the future, opening up new opportunities. We create a safe and encouraging environment where students feel confident taking risks and learning from mistakes.

Our five-year curriculum pathway enables students to continuously build on prior learning, following a series of carefully sequenced steps within phases, allowing students to link between topics, improve retention, develop fluency, and solve problems in a variety of contexts.

Implementation

KS3 & KS4

Our curriculum is a five-year pathway, designed to equip young people with the numerical and mathematical skills to function in society, as well as preparing them for mathematics study beyond GCSE.

The carefully sequenced steps within phases ensure that students appreciate the interlinking nature of mathematics as well as developing problem solving, reasoning and logic skills across a variety of situations.

Throughout KS4, students will cover a range of topics within the following areas of mathematics:

- Number
- Ratio and Proportion
- Algebra
- Geometry
- Statistics

The exact content within each area will differ depending on the phase of the scheme of learning that a student follows as we consider the different starting points of pupils when studying mathematics.

Impact

Assessment

Students are assessed at regular intervals throughout their course using unit assessments with questions from Exampro, and past papers from the exam board to enable them to apply the knowledge and skills learned. Feedback is provided to learners with strengths and areas to improve identified in order to allow them to make further progress.

Formative assessments and multi-choice quizzes will also be used in class to assess retention and understanding.

In the exam series the students will be assessed as outlined below.

KS4

Edexcel GCSE Mathematics – 1MA1	Weighting	Assessment	When
Paper 1 - Non calculator	80 marks	Equally weighted exams sat either at Foundation or Higher tier. All exams are 1 hour 30 minutes.	Year 11
Paper 2 - Calculator	80 marks		Year 11
Paper 3 - Calculator	80 marks		Year 11

Department

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