

Maths

Intent “Go down deep enough into anything and you will find mathematics.” – **Dean Schlichter**

HEBBURN
Comprehensive School



WORK HARD | BE KIND | ASPIRE

Mathematics is a profoundly creative and interconnected discipline, shaped over centuries to solve some of humanity’s most fascinating challenges. It underpins everyday life, drives innovation in science, technology, and engineering, and is vital for financial literacy and a wide range of careers. A high-quality mathematics education equips learners with the tools to understand the world, reason logically, appreciate the elegance and power of mathematical thinking, and cultivate a lasting sense of curiosity and enjoyment. **Our curriculum is designed to build fluency in mathematical fundamentals through varied and frequent practice, gradually increasing in complexity.** This approach fosters deep conceptual understanding and enables students to recall and apply knowledge with speed and precision. As their mathematical repertoire expands, so too does their capacity to use mathematics as a powerful tool for modelling and interpreting real-world situations.

	7	8	9	10	11
Topics (Year 10 and Year 11 – HT means higher tier only)	<u>Assessment Cycle 1:</u> written calculations, angles, formulae and expressions, powers and roots, sequences, probability, area and perimeter, plotting graphs, transformations and vectors, calculations and checking, handling data (interpreting results) <u>Assessment Cycle 2:</u> fractions, decimals and percentages, metric conversions, solving equations, ratio and proportion, volume and surface area, calculations and checking, construct and solve equations, plans and elevations, scale drawings, equations of linear graphs, data collection, constructions <u>Summer Term:</u> problem solving			<u>OCR GCSE</u> <u>Assessment Cycle 1:</u> powers and roots, order of operations, substitution, rounding, algebraic expressions, fractions, decimals and percentages, equations, perimeter and area, Pythagoras Theorem, trigonometry, surds (HT), coordinates, linear graphs, sequences <u>Assessment Cycle 2:</u> inequalities, averages, boxplots (HT), ratio, vectors, transformations, percentages, formulae, angle facts, graphs and charts, simultaneous equations, vectors (HT), plans and elevations	<u>OCR GCSE</u> <u>Assessment Cycle 1:</u> trigonometry, circle theorem (HT), surds (HT), compound units (speed, density), quadratic equations, probability, growth and decay, standard form, maps and scale drawings, similarity and congruence, plotting graphs (quadratic, cubic, reciprocal), inverse proportion, real-life graphs <u>Assessment Cycle 2:</u> quadratic equations, transformation of graphs (HT), algebraic proof (HT), simultaneous equations, iteration (HT), graphs of functions (HT), parallel and perpendicular lines