

The Programme of Study for Maths is derived from the National Curriculum for Maths in England, which provides a coherent and structured framework for the progression of mathematical knowledge and skills from the Early Years Foundation Stage (EYFS) through to Key Stage 4 (KS4). It outlines a carefully sequenced body of knowledge and key concepts, ensuring continuity and progression across all key stages. Many of these concepts are revisited and developed in greater depth throughout the primary and secondary phases, supporting cumulative learning and mastery over time.

Prior learning: KS3	Number
	understand and use place value for decimals, measures and integers of any size order positive and negative integers, decimals and fractions; use the number line as a model for ordering of the real numbers; use the symbols =, ≠, <, >, ≤, ≥ use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and the unique factorisation property use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative use conventional notation for the priority of operations, including brackets, powers, roots and reciprocals recognise and use relationships between operations including inverse operations use integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 and distinguish between exact representations of roots and their decimal approximations interpret and compare numbers in standard form $A \times 10^n$ $1 \leq A < 10$, where n is a positive or negative integer or zero work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and $2\frac{1}{2}$ or 0.375 and $\frac{3}{8}$) define percentage as ‘number of parts per hundred’, interpret percentages and percentage changes as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities using percentages, and work with percentages greater than 100%

	interpret fractions and percentages as operators use standard units of mass, length, time, money and other measures, including with decimal quantities round numbers and measures to an appropriate degree of accuracy [for example, to a number of decimal places or significant figures] use approximation through rounding to estimate answers and calculate possible resulting errors expressed using inequality notation use a calculator and other technologies to calculate results accurately and then interpret them appropriately appreciate the infinite nature of the sets of integers, real and rational numbers
	Number
	Structure and calculation: N1 order positive and negative integers, decimals and fractions. N2 apply the four operations, including formal written methods, to integers, decimals and simple fractions N3 use inverse operations N4 use the concepts and vocabulary of prime numbers, factors (divisors), multiples, common factors, common multiples, highest common factor, lowest common multiple, N5 apply systematic listing strategies N6 use positive integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 N7 calculate with roots N8 calculate exactly with fractions and multiples of π N9 calculate with and interpret standard form Fractions, decimals and Percentages N10 work interchangeably with terminating decimals and their corresponding fractions

	N11 identify and work with fractions in ratio problems N12 interpret fractions and percentages as operators Measures and accuracy N13 use standard units of mass, length, time, money and other measures (including standard compound measures) using decimal quantities where appropriate N14 estimate answers; check calculations using approximation and estimation, including answers obtained using technology N15 round numbers and measures to an appropriate degree of accuracy (e.g. to a specified number of decimal places or significant figures); use inequality notation to specify simple error intervals due to truncation or rounding N16 apply and interpret limits of accuracy
Subsequent learning: Higher paper	Structure and calculation N1 use the symbols =, ≠, <, >, ≤, ≥ N2 apply using mixed numbers – all both positive and negative; understand and use place value N3 use conventional notation for order of operations, including brackets, powers, roots and reciprocals N4 Express a number as a product of its prime factors N5 Multiply the number of outcomes for each event to find the total number of combinations N6 estimate powers and roots of any given positive number N7 calculate with fractional indices N8 calculate exactly with surds and simplify surd expressions involving squares (e.g. $\sqrt{12} = \sqrt{4 \times 3} = \sqrt{4} \times \sqrt{3} = 2\sqrt{3}$) and rationalise denominators N9 calculate with and interpret standard form $A \times 10^n$, where $1 \leq A < 10$ and n is an integer Fractions, Decimals and Percentages N10 change recurring decimals into their corresponding fractions and vice versa

	Measures and accuracy
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	N15 use inequality notation($>$, $\geq$, $<$, $\leq$, $\neq$) to specify simple error intervals due to rounding
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	N16 apply and interpret limits of accuracy, including upper and lower bounds
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