

KS4 Maths Curriculum - Year A (2026-27)

3-Year Rolling Programme | 73 x 45-minute sessions | Mondays & Wednesdays

Progression model: Secure -> Connect -> Apply -> Reason -> GCSE Problem Solving

Progressive KS4 Maths: Our three-year rolling KS4 Maths curriculum follows a spiral approach designed to strengthen essential mathematical understanding while steadily progressing towards GCSE-level application. Familiar concepts are deliberately revisited at increasing levels of complexity, allowing pupils to address gaps before applying knowledge through deeper reasoning, mathematical connections and multi-step GCSE-style problem solving. Returning learners therefore build upon previous learning rather than simply repeating earlier work.

Autumn Term 2026

28 sessions | 7 September - 16 December | Half term: 26-30 October

Ses s.	Date	Unit	Session focus	Progressive curriculum objective
1	Mon 7 Sept	Number Fluency: Precision, Strategy & GCSE Application	Number Fluency: Choosing Efficient Methods	Strengthen calculation with integers and decimals while progressing towards selecting efficient mental, written and calculator strategies in GCSE-style contexts.
2	Wed 9 Sept	Number Fluency: Precision, Strategy & GCSE Application	Negative Numbers: Extending Fluency	Apply operations with negative numbers to increasingly complex calculations, algebraic expressions and contextual problems.
3	Mon 14 Sept	Number Fluency: Precision, Strategy & GCSE Application	Order of Operations & Mathematical Structure	Apply operation priority to more complex expressions involving brackets, powers and negatives; identify and explain common errors.
4	Wed 16 Sept	Number Fluency: Precision, Strategy & GCSE Application	Factors, Multiples & Prime Structure	Develop prime factorisation and use it strategically to solve HCF/LCM and divisibility problems rather than simply identifying factors.
5	Mon 21 Sept	Number Fluency: Precision, Strategy & GCSE Application	Indices, Powers & Roots	Strengthen index knowledge and make connections between powers, roots and number structure, progressing towards GCSE index laws.
6	Wed 23 Sept	Number Fluency: Precision, Strategy & GCSE Application	Standard Form: Representing Extreme Numbers	Move between ordinary numbers and standard form and apply calculations in scientific and real-life contexts.
7	Mon 28 Sept	Number Fluency: Precision, Strategy & GCSE Application	Accuracy, Rounding & Significant Figures	Select appropriate levels of accuracy and evaluate the effect of rounding in calculations and contextual problems.
8	Wed 30 Sept	Number Fluency: Precision, Strategy & GCSE Application	Number Fluency GCSE Challenge	Combine number skills in unfamiliar multi-step problems where the required method is not explicitly given.
9	Mon 5 Oct	Algebraic Fluency: Manipulate, Solve & Generalise	Algebraic Manipulation: Developing Fluency	Strengthen collecting like terms and simplifying expressions before progressing to more complex manipulation involving powers and coefficients.
10	Wed 7 Oct	Algebraic Fluency: Manipulate, Solve & Generalise	Expanding & Factorising	Connect expansion and factorisation as inverse processes and apply them to increasingly complex expressions.
11	Mon 12 Oct	Algebraic Fluency: Manipulate, Solve & Generalise	Substitution With Precision	Substitute positive, negative and decimal values into formulae and expressions, including powers and multiple variables.
12	Wed 14 Oct	Algebraic Fluency: Manipulate, Solve & Generalise	Forming Expressions & Equations	Translate increasingly complex written and contextual information into algebra independently.
13	Mon 19 Oct	Algebraic Fluency: Manipulate, Solve & Generalise	Solving Linear Equations: Extending the Method	Progress from simple equations into brackets, unknowns on both sides and increasingly complex structures according to readiness.
14	Wed 21 Oct	Algebraic Fluency: Manipulate, Solve & Generalise	Algebraic Reasoning & GCSE Problem Solving	Apply manipulation and equation skills to unfamiliar problems, analyse errors and justify algebraic reasoning.
15	Mon 2 Nov	FDP: Fluency to Financial Reasoning	Fraction Fluency: Strengthening the Foundations	Secure operations with fractions before progressing into complex calculations and GCSE-style reasoning.
16	Wed 4 Nov	FDP: Fluency to Financial Reasoning	Fractions, Decimals & Percentages: Moving Flexibly	Convert efficiently between representations and select the form most useful for solving a problem.
17	Mon 9 Nov	FDP: Fluency to Financial Reasoning	Percentages of Amounts: Efficient Strategies	Progress from basic percentage calculations into non-standard percentages and selecting efficient mental or calculator methods.
18	Wed 11 Nov	FDP: Fluency to Financial Reasoning	Percentage Multipliers	Connect percentage increase and decrease to multiplication and use decimal multipliers efficiently.
19	Mon 16 Nov	FDP: Fluency to Financial Reasoning	Repeated Percentage Change	Apply multipliers to repeated growth and decay and interpret results in real contexts.
20	Wed 18 Nov	FDP: Fluency to Financial Reasoning	Reverse Percentages: Working	Develop inverse reasoning to determine original quantities following percentage change.

			Backwards	
21	Mon 23 Nov	FDP: Fluency to Financial Reasoning	Financial Maths & Percentage Reasoning	Apply percentages to discounts, profit/loss, interest and other financial contexts through multi-step problems.
22	Wed 25 Nov	FDP: Fluency to Financial Reasoning	Percentage GCSE Challenge	Distinguish between percentage-of, percentage-change and reverse-percentage problems and independently select appropriate strategies.
23	Mon 30 Nov	Ratio, Rates & Proportional Reasoning	Ratio: From Simplifying to Reasoning	Strengthen equivalent ratios and progress into increasingly complex missing-value and contextual problems.
24	Wed 2 Dec	Ratio, Rates & Proportional Reasoning	Sharing & Combining Ratios	Extend ratio sharing into more complex totals and relationships, including problems where only partial information is given.
25	Mon 7 Dec	Ratio, Rates & Proportional Reasoning	Direct Proportion & Scaling	Recognise and solve directly proportional relationships using scaling, unitary methods and multiplicative reasoning.
26	Wed 9 Dec	Ratio, Rates & Proportional Reasoning	Rates & Compound Measures	Connect proportional reasoning to rates such as speed, unit price and density at an appropriate level.
27	Mon 14 Dec	Ratio, Rates & Proportional Reasoning	Connecting Ratio, Fractions & Percentages	Move flexibly between representations and recognise proportional structure within unfamiliar problems.
28	Wed 16 Dec	Ratio, Rates & Proportional Reasoning	Autumn GCSE Maths Master Challenge	Combine number, algebra, percentages and proportion in multi-topic GCSE-style problems requiring independent method selection.