

Maths - Year 9

 Topic list Autumn 1	Topic list Autumn 2	Topic list Spring 1	Topic list Spring 2	Topic list Summer 1	Topic list Summer 2
- Properties of number - Percentages - Area and volume - Equations, inequalities and formulae	- Fractions - Rates - Standard form	- Maths and money - Straight line graphs - Ratio and proportion	- Constructions and congruence - Similarity - Algebraic manipulation	- Pythagoras theorem - Non-linear graphs - Probability	- Transformations - Simultaneous equations - Trigonometry
Why this Why Now	Why this Why Now	Why this Why Now	Why this Why Now	Why this Why Now	Why this Why Now
- Strengthens number sense and prepares pupils for algebraic manipulation and problem-solving - Develops fluency in percentage increase and decrease, reverse percentages and compound interest. - Introduces inequalities, formula substitution and rearrangement for problem-solving.	- Consolidates understanding of addition, subtraction, multiplication and division of fractions, including mixed and improper fractions. - Encourages proportional reasoning and the ability to interpret and compare quantities effectively. - Develops fluency with powers of ten and scientific notation, essential for science, engineering and higher-level maths.	- Develops financial literacy, including understanding budgeting, profit and loss, interest, and tax - Strengthens links between algebra and geometry, allowing pupils to visualize relationships between variables. - Strengthens skills in solving problems involving direct and inverse proportion	- Develops geometric reasoning and precision through construction triangles, bisectors, perpendiculars and loci - Develops understanding of shapes, scale factors and proportional reasoning. - Strengthens skills needed for solving linear and quadratic equations	- Introduces pupils to a fundamental geometric relationship between the sides of right-angled triangles. - Extends knowledge of coordinates and straight-line graphs to quadratic, cubic and reciprocal functions. - Introduces systematic methods, including sample space and tree diagrams, to calculate theoretical probabilities.	- Builds fluency in recognizing and performing geometric transformations - Introduces a systematic way of solving problems involving two unknowns. - Introduces a tool for finding unknown lengths and angles in a right-angles triangle
Tier 3 Vocabulary and Reading		Tier 3 Vocabulary and Reading		Tier 3 Vocabulary and Reading	
Equal, Schmequal by V Kroll <u>Keywords:</u> Highest common factor, lowest common multiple, surface area, nets, prism, cylinder, sphere, inequalities	Math curse by Jon Scieszka <u>Keywords:</u> Numerator, denominator, mixed number, improper fraction, rate, speed, density, significant figures, indices.	Number devil by Hans Magnus <u>Keywords:</u> Spending, pay, save, investing, borrowing, budgeting, loans, insurance, rearrange, intercepts, direct, inverse.	The man who counted by Maliba Tahan <u>Keywords:</u> Construction, compass, bisector, perpendicular, congruence, similar, linear, quadratic.	Probably Pistachio by Stuart Murphy <u>Keywords:</u> Hypotenuse, square, square root, theorem, quadratic, cubic, reciprocal graphs, turning point, intercept.	Love triangle by Matt Parker <u>Keywords:</u> Reflection, rotation, clockwise, anticlockwise, translation, vector, enlargement, scale factor, variable, point of intersection, hypotenuse, opposite, adjacent