

Year 8 Overview

Term	Units	General Topics
Autumn 1	Unit 2: Investigating Number Systems	Interpret standard form (i.e. convert into and out of) Round numbers to appropriate accuracy (including dp and sf)
	Unit 3: Solving Calculation Problems	Calculate with numbers in standard form Apply four operations to integers, decimals and fractions (including mixed numbers); use conventional order of operations for these calculations Substitute into formulae; change the subject of a formula; use algebraic notation.
	Unit 7: Discovering Equivalence	Work with percentages greater than 100%; Solve percentage change problems including original amount and simple interest problems; Work interchangeably with terminating decimals and their fraction equivalents
Autumn 2	Unit 13a: Proportional Reasoning Ratios	Recognise a ratio problem; apply ratio to real problems; Express a multiplicative relationship as a ratio or fraction; Understand and use proportion as equality of ratios; Relate ratio to fractions and to linear functions;
	Unit 1: Pattern Sniffing	Generate a sequence from a term-to-term rule and position-to-term rule; nth term of linear sequences Prime numbers, highest common factors, lowest common multiples, prime factorisation, product notation and unique factorisation theorem.
	Unit 4: Exploring Shape ASSESSMENT Week 6: wb 5 th December	Angles on parallel lines Derive and use sum of angles in a triangle; interior and exterior angles of regular polygons
Spring 1	Unit 10: Reasoning with Fractions	Calculate exactly with fractions Apply the property of probabilities summing to 1 Enumerate sets, outcomes etc systematically using tables, grids and Venn diagrams Construct theoretical possibility spaces and use them to calculate theoretical probabilities

	Unit 8: Investigating Statistics	Use and interpret scatter graphs; Recongise correlation Interpret, analyse and compare the distributions of data sets through appropriate graphical representation (discrete, continuous and grouped data). Interpret, analyse and compare the distributions of data sets through appropriate measures of central tendency and spread Apply statistics to describe a population
Spring 2	Unit 6: Reasoning with Measure	Calculate perimeters of 2D shapes including circles; Calculate areas of circles and composite shapes; Know and apply formulae to calculate volumes of right prisms and cylinders
	Unit 13b: Proportional Reasoning Applied	Compare lengths, areas and volumes using ratio notation; Use scale factors, scale diagrams and maps; identify and work with fractions in ratio problems; solve problems involving direct and inverse proportion using graphical and algebraic representations.
	Unit 5: Generalising Arithmetic	Review four operations for integers, decimals, fractions and mixed numbers; order of operations. Review algebraic notation usage and interpretation. Simplify and manipulate algebraic expressions by factorising; simplify expressions involving sums, differences and products including the laws of indices. Understand and write simple inequalities
Summer 1	Unit 9: Solving Number Problems	Solve linear equations with unknown on both sides Find approximate solutions to linear equations using a graph
	Unit 12: Exploring Change	Plot graphs of equations that correspond to straight line graphs Identify and interpret gradients and intercepts of functions graphically and algebraically Recognise, sketch and interpret graphs of linear and quadratic functions
Summer 2	Unit 15: Measuring and Estimating	Use compound units; change freely between compound units in numerical contexts Plot and interpret graphs of non-standard functions in real contexts and use to solve simple kinematic problems
	Revision and Assessment	

