



Mathematics

‘A person who never made a mistake never tried anything new.’ Albert Einstein

Curriculum Vision

Mathematics is a key life skill and is a language through which ideas can be explored, explained, and developed. The underlying aim in all mathematics teaching is to give children an understanding of the patterns and processes of mathematics. Through problem solving, the focus is to enable them to see the uses and purposes of what they are learning and its application to life skills, and to be resilient and independent learners.

Year 9 Topic Map

	AUTUMN		SPRING		SUMMER	
Topics	Reasoning with number	Constructing in 2 and 3 Dimensions	Reasoning with Algebra	Reasoning with Geometry	Reasoning with proportion	Probability and Algebraic Representation
Key Knowledge <i>(not exhaustive)</i>	Numbers Using percentages Maths and money	3D shapes Constructions and congruency	Straight Line Graphs Forming and solving equations Testing conjectures	Deduction Rotation and translation Pythagoras	Enlargement and similarity Solving ratio and proportion problems	Rates Probability Algebraic representation
Key Skills	<p>Use and apply standard techniques: accurately recall facts, terminology, and definition; use and interpret notation correctly; accurately carry out routine procedures or set tasks requiring multi-step solutions.</p> <p>Reason, interpret and communicate mathematically: make deductions, inferences and draw conclusions from mathematical information; construct chains of reasoning to achieve a given result; interpret and communicate information accurately; present arguments and proofs; assess the validity of an argument and critically evaluate a given way of presenting information.</p> <p>Solve problems within mathematics and in other contexts: translate problems in mathematical or non-mathematical contexts into a process or a series of mathematical processes; make and use connections between different parts of mathematics; interpret results in the context of the given problem; evaluate methods used and results obtained; evaluate solutions to identify how they may have been affected by assumptions made.</p>					
Key Vocabulary <i>(not exhaustive)</i>	Integer, real, rational, irrational, face, edge, congruent, identical, invariant, corresponding side, parallel, horizontal, vertical, gradient, slope, steep, coordinate, y-intercept, rearrange, interpret, direct proportion, real life, curve, asymptote, centre of rotation, hypotenuse, scale factor, event, outcome, biased, relative frequency, expected, independent, Venn diagram, intersection, union, quadratic, parabola, reciprocal, exponential, simultaneous.					