Mathematics Scheme of Work

Unit	Hours	Learning	Essential knowledge
Autumn 1		•	•
Numbers and the number system	9	• Use positive integer powers and associated real roots	• Know the first 6 cube numbers
Counting and comparing	4	• Apply the four operations with decimal numbers	• Know the first 12 triangular numbers
Calculating	9	• Write a quantity as a fraction or percentage of another	• Know the symbols =, ≠, <, >, ≤, ≥
End of term test		• Use multiplicative reasoning to interpret percentage change	• Know the order of operations including brackets
Autumn 2		• Add, subtract, multiply and divide with fractions and mixed numbers	• Know basic algebraic notation
Presentation of data	6	• Check calculations using approximation, estimation or inverse operations	• Know that area of a rectangle = l × w
Measuring data	5	• Simplify and manipulate expressions by collecting like terms	• Know that area of a triangle = b × h ÷ 2
Visualising and constructing	5	• Simplify and manipulate expressions by multiplying a single term over a bracket	• Know that area of a parallelogram = b × h
Investigating properties of shapes	6	• Substitute numbers into formulae	• Know that area of a trapezium = ((a + b) ÷ 2) × h
End of term test		• Solve linear equations in one unknown	• Know that volume of a cuboid = l × w × h
Spring 1		• Understand and use lines parallel to the axes, y = x and y = -x	• Know the meaning of faces, edges and vertices
Algebraic proficiency: tinkering	9	• Calculate surface area of cubes and cuboids	• Know the names of special triangles and quadrilaterals
Exploring fractions, decimals and percentages	3	• Understand and use geometric notation for labelling angles, lengths, equal lengths and parallel lines	• Know how to work out measures of central tendency
Proportional reasoning	4		• Know how to calculate the range
Patterns	3		
End of term test			
Spring 2			
Measuring space	5		
Investigating angles	3		
Calculating fractions, decimals and percentages	12		
End of term test			
Summer			
Solving equations and inequalities	6		
Calculating space	6		
Checking, approximating and estimating	2		
Mathematical movement	8		
End of year test			