

Mathematics overview: Year 6

Topics	Essential skills	Essential knowledge
Numbers and the number system	<ul style="list-style-type: none"> • Multiply and divide numbers with up to three decimal places by 10, 100, and 1000 • Use long division to divide numbers up to four digits by a two-digit number • Use simple formulae expressed in words • Generate and describe linear number sequences • Use simple ratio to compare quantities • Write a fraction in its lowest terms by cancelling common factors • Add and subtract fractions and mixed numbers with different denominators • Multiply pairs of fractions in simple cases • Find percentages of quantities • Solve missing angle problems involving triangles, quadrilaterals, angles at a point and angles on a straight line • Calculate the volume of cubes and cuboids • Use coordinates in all four quadrants • Calculate and interpret the mean as an average of a set of discrete data 	<ul style="list-style-type: none"> • Know percentage and decimal equivalents for fractions with a denominator of 2, 3, 4, 5, 8 and 10 • Know the rough equivalence between miles and kilometres • Know that vertically opposite angles are equal • Know that the area of a triangle = $\text{base} \times \text{height} \div 2$ • Know that the area of a parallelogram = $\text{base} \times \text{height}$ • Know that volume is measured in cubes • Know the names of parts of a circle • Know that the diameter of a circle is twice the radius • Know the conventions for a 2D coordinate grid • Know that $\text{mean} = \text{sum of data} \div \text{number of pieces of data}$
Calculating		
Calculating: division		
Visualising and constructing		
Investigating properties of shapes		
Algebraic proficiency: using formulae		
Exploring fractions, decimals and percentages		
Proportional reasoning		
Pattern sniffing		
Measuring space		
Investigating angles		
Calculating fractions, decimals and percentages		
Solving equations and inequalities		
Calculating space		
Checking, approximating and estimating		
Mathematical movement		
Presentation of data		
Measuring data		