

Maths

Year 7

What are the aims and intentions of this curriculum?

Term	Set 1, 2 and 3	Set 4 and 5	Assessment
Autumn 1	Solve problems with Prime Numbers Solve problems with Highest Common Factor and Lowest Common Multiple Explore powers and roots and number patterns To be able to compare and order numbers To be able to use written methods to multiply and divide To be able to apply the correct order of operations	Identify the value of each digit in numbers given to three decimal places multiply and divide numbers by 10, 100 and 1000 Use negative numbers in context Identify common factors, common multiples and prime numbers Extend written multiplication methods Know and use the order of operations Solve problems involving addition, subtraction and multiplication	Mini topic assessments after each section of work
Autumn 2	●To be able to use conventional terms and notations ●To be able to recognise line and rotational symmetry ●To be able to draw diagrams from a written description ●Investigate the properties of 3D shapes ●Know the properties of triangles and quadrilaterals ●Apply the properties of triangles and quadrilaterals to solve problems	Develop written methods of division Deal with remainders when carrying out division Solve problems involving division Construct lines and angles accurately Know and use the mathematical language of 3D shapes Explore the nets of 3D shapes	Mini topic assessments after each section of work and a written assessment covering all the work completed so far.
Spring 1	 ●To be able to simplify expressions ●To be able to expand a single bracket ●To understand how to use function machines ●To be able to convert between fractions and percentages ●To be able to simplify a ratio ●To be able to share in a ratio 	To be able to identify properties of triangles and quadrilaterals To be able to use the angle sum of triangles and quadrilaterals to solve problems To be able to calculate the angle sums of regular polygons Explore the equivalence of fractions Apply the equivalence of fractions for comparing size Explore the equivalence between fractions, decimals and percentages	Mini topic assessments after each section of work
Spring 2	To measure lines and angles accurately To convert between metric units of length, mass and capacity To apply angle rules Apply the four operations to fractions Apply the four operations to mixed numbers and improper fractions Use the multiplier method for percentages	Apply proportional reasoning to problems with costs/recipes Use and understand scale factors in enlargement Use division and multiplication to solve grouping and sharing problems To measure lines and angles accurately To convert between metric units of length, mass and capacity To apply angle rules	Mini topic assessments after each section of work and a written assessment covering all the work completed so far.
Summer 1	●To solve one step equations ●To solve two step equations ●To solve three step equations ●To calculate area and perimeter of rectangles and triangles ●To calculate area of parallelograms and trapezia ●To calculate volume and surface area of cuboids	Add and subtract fractions with different denominators Apply multiplication and division to fractions Calculate percentages of quantities To solve missing number problems To explore area To investigate volume	Mini topic assessments after each section of work
Summer 2	Draw and Describe Reflections Draw and Describe Rotations Draw and Describe Translations To be able to construct and complete frequency tables To be able to construct and interpret pictograms and bar charts To be able to construct pie charts	To calculate area of triangles and parallelograms To calculate volume of cuboids To convert units of area and volume Use coordinates to describe the position of a point Draw points using coordinates Translate and Reflect shapes	Mini topic assessments after each section of work. End of Year written assessments