

Autumn 1	
Number - Number and place value	<ul style="list-style-type: none"> • Read and write seven-digit numbers • Identify the value of each digit in a seven-digit number • Use the value of the digits to compare and order numbers • Round any whole number to the required degree of accuracy
Number -Addition and subtraction	<ul style="list-style-type: none"> • Add a multiple of 10, 100 or 1000, 10 000, 100 000 from a six- or seven-digit number • Subtract a multiple of 10, 100 or 1000, 10 000, 100 000 from an even six- or seven-digit number • Add and subtract decimals with both one or two decimal places • Add and subtract decimals a combination of one or two decimal places
Number - Multiplication and division	<ul style="list-style-type: none"> • Make a reasonable estimate of the answer to a calculation and use this to check the answer • Use a written method to calculate multiplication of ThHTO x O • Use a written method to calculate multiplication of TO x TO
Number - Fractions	<ul style="list-style-type: none"> • Recognise common factors and common multiples • Simplify fractions by cancelling common factors • Identify and create equivalent fractions • Order a set of fractions by converting them to fractions with a common denominator • Add and subtract fractions with different denominators and mixed numbers
Geometry - Properties of 2d shape	<p>To know the properties of parallelograms, rhombuses and trapezia</p> <p>To sort quadrilaterals</p> <p>To identify and organise shapes according to properties</p>
Geometry – Position and direction	<ul style="list-style-type: none"> • Use coordinates to describe the positions of shapes in all four quadrants • Plot and label rectangles, squares, parallelograms and rhombuses in all four quadrants • Use the properties of shapes to predict missing coordinates • Translate shapes into all four quadrants using coordinates • Use the properties of shapes to predict missing coordinates • Use coordinates to reflect shapes in the axes into all four quadrants

Autumn 2	
Number – Addition and subtraction	<ul style="list-style-type: none"> • Add six- seven-digit numbers using the formal written method of columnar addition • Subtract six- seven-digit numbers using the formal written method of columnar subtraction • Add numbers with up to two decimal places using the formal written method of columnar addition • Subtract numbers with up to two decimal places using the formal written method of columnar subtraction • Estimate and check the answer to a calculation
Number - Decimals	<ul style="list-style-type: none"> • Identify the value of each digit in numbers with three decimal places • Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • Multiply decimals by whole numbers, using and applying known multiplication tables, and in the context of measures and money • Solve problems which require the answer to be rounded to specified degrees of accuracy
Measurement - Length	<ul style="list-style-type: none"> • Convert from one unit of length to another, using decimal notation up to three decimal places where appropriate • Calculate and convert between standard units of length to solve problems • Convert and make approximate conversions between miles and kilometres • Interpret a miles to kilometres graph
Number - Multiplication and division	<ul style="list-style-type: none"> • Identify common factors and common multiples • Make a reasonable estimate of the answer to a calculation and use this to check the answer • Use the formal method of short division to calculate $\text{ThHTO} \div 0$, $\text{ThHTO} \div 11$ and $\text{ThHTO} \div 12$ • Express a remainder in a division calculation as a whole number, a fraction or a decimal • Determine whether to round up or down a remainder in a division calculation according to the context
Number - Fractions (including decimals and percentages)	<ul style="list-style-type: none"> • Associate a fraction with division • Calculate decimal fraction equivalents • Recall equivalences between simple fractions, decimals and percentages • Solve problems involving the calculation of percentages
Measurement (time)	<ul style="list-style-type: none"> • Convert from smaller to larger standard units of time and vice versa • Calculate and convert between standard units of time to solve problems • Calculate the average speed of a journey in kilometres per hour and in miles per hour • Calculate the average speed of travel using a range of compound units • Apply the calculation of speed to subjects such as science

Spring 1	
Number –Four operations including place value	<ul style="list-style-type: none"> •To perform mental calculations, including with mixed operations and large numbers •To use negative numbers in context, and calculate intervals across zero •To understand the order of operations- use the BODMAS rule involving four operations and brackets •To practise addition and subtraction for larger numbers, including both mental and written methods
Algebra	<ul style="list-style-type: none"> • To generate a simple formula to fit a problem and solve simple formulae for given values • To substitute values into a simple formula • To continue or complete linear number sequences • To describe and calculate the nth term of a number sequence • To construct an algebraic formula for a problem in words and then symbols • To find solutions to equations involving two unknowns using a suitable strategy
Properties of shapes	<ul style="list-style-type: none"> • To draw 2-D shapes using given dimensions and angles • To use measuring tools and conventional markings and labels for lines and angles • To use properties and sizes to compare and classify geometric shapes
Properties of angles	<ul style="list-style-type: none"> • To find unknown angles in triangles, quadrilaterals and regular polygons • To identify and name angles where they are vertically opposite • To identify angles where they meet at a point, are on a straight line, or are vertically opposite • To find missing angles expressing relationships algebraically, e.g. $a = 180 - (b + c)$
Multiplication and division	<ul style="list-style-type: none"> • To make a reasonable estimate of the answer to a calculation and use this to check the answer • To use a written method to calculate multiplication of $HTO \times TO$ • To use written methods of division
Measurement (mass)	<ul style="list-style-type: none"> • To convert from one unit of mass to another, using decimal notation up to three decimal places • To calculate and convert between grams and kilograms to solve problems involving mass

Spring 2	
Statistics	<ul style="list-style-type: none"> • To interpret and construct pie charts and use them to solve problems • To interpret and construct line graphs relating two variables and use them to solve problems • To solve problems by collecting and organising data from an enquiry • To calculate and interpret the mean as an average
Ratio and Proportion	<ul style="list-style-type: none"> • To recognise and solve proportion problems • To understand and use ratios to solve problems involving numbers, shapes and scale drawings • To solve problems involving similar shapes where the scale factor is known or can be found • To solve missing value ratio problems using multiplication and division • To solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Fractions	<ul style="list-style-type: none"> • To work out the lowest common denominators • To convert fractions and add/subtract them • To write the answer as a mixed number • To divide proper fractions by whole numbers • To multiply simple pairs of proper fractions, writing the answer in its simplest form • To solve problems that involve adding, subtracting, multiplying and dividing fractions. • Use common factors to simplify fractions
Measurement (perimeter and area)	<ul style="list-style-type: none"> • To know that shapes with the same areas can have different perimeters and vice versa • To know when it is possible to use formulae for area of shapes • To calculate the area of a triangle using the rule $A = \frac{1}{2}bh$ • To calculate the area of a parallelogram using the rule $A = bh$ • To calculate area of a circle • To be able to calculate area of compound shapes
3D Shape	<ul style="list-style-type: none"> • To revise properties of 3D shapes • To accurately make and draw 3D shapes • To use the formula for area of rectangles and squares to calculate the surface area of cubes and cuboids

