

YEAR 6	
Number and Place Value	<ul style="list-style-type: none"> • Use negative numbers in context, and calculate intervals across zero • Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit • Identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places • Round any whole number to a required degree of accuracy • Solve number and practical problems that involve all of the above
Fractions	<ul style="list-style-type: none"> • Compare and order fractions, including fractions >1. • Identify the value of each digit in numbers given to three decimal places. • Solve problems which require answers to be rounded to specified degrees of accuracy. • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Associate a fraction with division and calculate decimal fraction equivalents (e.g. 0.375) for a simple fraction (e.g. $\frac{3}{8}$). • Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. • Multiply simple pairs of proper fractions, writing the answer in its simplest form (e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$). • Multiply one-digit numbers with up to two decimal places by whole numbers. • Divide proper fractions by whole numbers (e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$).
Ratio and Proportion	<ul style="list-style-type: none"> • Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts • Solve problems involving the calculation of percentages (e.g. of measures) such as 15% of 360 and the use of percentages for comparison • Solve problems involving similar shapes where the scale factor is known or can be found • Solve problems involving unequal sharing or grouping using knowledge of fractions and multiples
Addition and Subtraction	<ul style="list-style-type: none"> • Perform mental calculations, including with mixed operations and large numbers. • Use their knowledge of the order of operations to carry out calculations involving the four operations. • Use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy. • Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. • Solve problems involving addition, subtraction, multiplication and division.
Multiplication and Division	<ul style="list-style-type: none"> • Count in decimal steps. • Use multiplication and division facts (12x12) to derive decimal multiplication and division facts. • Perform mental calculations, including with mixed operations and large numbers. • Solve problems involving addition, subtraction, multiplication and division. • Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication. • Divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division where appropriate for the context divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.
Algebra	<ul style="list-style-type: none"> • Express missing number problems algebraically. • Find pairs of numbers that satisfy number sentences involving two unknowns. • Enumerate all possibilities of combinations of two variables use simple formulae. • Generate and describe linear number sequences.
Geometry - Shape	<ul style="list-style-type: none"> • Draw 2-D shapes using given dimensions and angles • Recognise, describe and build simple 3-D shapes, including making nets • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.

Statistics	<ul style="list-style-type: none"> • Interpret and construct pie charts and line graphs and use these to solve problems • Calculate and interpret the mean as an average.
Measures	<ul style="list-style-type: none"> • Calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (cm^3) and cubic metres (m^3), and extending to other units such as mm^3 and km^3. • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. • Recognise that shapes with the same areas can have different perimeters and vice versa. • Calculate the area of parallelograms and triangles. • Recognise when it is possible to use formulae for area and volume of shapes. • Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places. • Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate . • Convert between miles and kilometres.