Year 6 Term by Term Objectives

	Place Value	Addition and Subtraction	Multiplication and division	Fractions
Autumn	Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. Round any whole number to a required degree of accuracy. Use negative numbers in context and calculate intervals across zero. Solve number and practical problems that involve all of the above.	Solve addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why. Perform metal calculations, including with mixed operations and large numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations. Solve problems involving addition and subtraction. Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.	Multiply multi-digit numbers up to 4 digits by 2-digit number using the formal written method of long multiplication. Divide numbers up to 4-digits by a 2-digit number using the formal written method of long division and interpret remainders as a whole number remainders, fractions or by rounding as appropriate for the context. Divide numbers up to 4 digits by 2-digits using the formal written method of short division, interpreting remainders according to the context. Perform metal calculations, including with mixed operations and large numbers. Identify common factors, common multiples and prime numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations. Solve problems involving multiplication and division. Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare an order fractions, including fractions greater than 1 Generate and describe linear number sequences with fractions Add and subtraction fractions with different denominations and mixed numbers, using the concept of equivalent fractions. Multiply simple paris of proper fractions, writing the answer in its simplest form. (eg. $\frac{1}{4} \times \frac{1}{2} = 1/8$) Divide proper fractions by whole numbers (eg. $1/3 \div 2 = 1/6$) Associate a fraction with division and calculate decimal fraction equivalents (eg. 0.375) for a simple fraction (eg. 1/8) Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.

	Decimals and Percentages	Ratio and Proportion	Algebra	Measurement	Geometry: Shape	Geometry: Position and Direction	Statistics
Spring	Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. Multiply 1-digit numbers with up to 2 decimal places by whole numbers. Use written division methods in cases where the answer has up to 2 decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy. Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison. Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.	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 similar shapes where the scale factor is known or can be found. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.	Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables.	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. 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 3 dp. Convert between miles and kilometres. Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes. Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm3 , m3 and extending to other units (mm3 , km3)	Draw 2-D shapes using given dimensions and angles. Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangle, quadrilaterals and regular polygons. Recognise angles where they meet at a point, are on a straight line, or are vertically opposite and find missing angles.	Describe positions on the full coordinate grid (all four quadrants) Draw and translate simple shapes on the coordinate plane and reflect them in the axes.	Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Interpret and construct pie charts and line graphs and use these to solve problems. Calculate the mean as an average.

Summer	Consolidation and preparation for SATs	Maths investigations and time to revisit topics that needed more coverage.