Autumn Term	Number: Place Value	Number: Addition and Subtraction, Multiplication and Division	Geometry: Position and Direction
	Read, write and 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. _____ RTP - Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000).now Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning. Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts. Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.	Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. Multiply multi-digit numbers up to 4 digits by a 2 digit number using the formal written method of long multiplication. Divide numbers up to 4 digits by 2 digit whole number using the formal written method of long division, and interpret remainders as a whole number, fractions or by rounding as appropriate for the context. Divide numbers up to 4 digits by 2 digit number using the formal written method of short division, interpreting remainders according to context. Perform mental 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 four operations. Solve problems involving addition, subtraction, multiplication and division. _____ RTP – Understand that 2 numbers can be related additively or multiplicatively and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. Solve problems with 2 unknowns.	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.

Spring Term	Number: Fractions	Number: Decimals	Number: Percentages	Number: Algebra	Measure: Converting Units Perimeter, Volume and Area	Number: Ratio
	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions greater than 1. Generate and describe linear number sequences (with fractions). Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answer in its simplest form (for example, ¼ ×1/2 = 1/8). Divide proper fractions by whole numbers (for example, 1/3 divided by 2 = 1/6). Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. RTP - Recognise when fractions can be simplified and use common factors to simplify fractions. Express fractions in a common denomination and use this to compare fractions that are similar in value. Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.	Identify the value of each digit in numbers given to three decimal places and multiply numbers by 10, 100 and 1000 giving answers up to 3 decimal places. Multiply one digit numbers with up to 2dp by whole numbers. Use written division methods in cases where the answer has up to two 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 such as 15% of 360) and the use of percentages for comparison. Recall and use equivalences between FDP including in different contexts.	Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Enumerate possibilities of combinations of two variables. Find pairs of numbers that satisfy an equation with two numbers. RTP - Solve problems with 2 unknowns.	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3DP where appropriate. Use, read, write and convert between standard units, converting units of measure, length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation up to 3dp. 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 volumes of cubes and cuboids using standard units, including cm and m cubed and extending to other units (mm and km cubed).	Solve problems involving 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. RTP - Solve problems involving ratio relationships.

Summer Term	Geometry: Properties of Shape	Problem Solving – four operations	Statistics	Investigations
	Draw 2D 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. Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and missing angles. Illustrate and name parts of a circle including radius, diameter and circumference and know that the diameter is twice the radius. RTP - Draw, compose, and decompose shapes according to given properties, including dimensions, angles, and area, and solve related problems.	Solve problems involving addition, subtraction, multiplication and division. Solve problems which require answers to be rounded to specified degrees of accuracy. Solve problems with 2 unknowns.	Interpret and construct pie charts and line graphs and use these to solve problems. Calculate the mean as an average.	Post SATS work working on choosing, using, applying and reasoning about a range of mathematical skills and knowledge in a range of different contexts.