Number	Place Value	Addition and Subtraction	Multiplication and Division	Statistics
YEAR 6 — Objectives to be covered during the Autumn Term	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. Multiply and divide by 10, 100 or 1000, where the answers are up to three decimal places. Investigate products of odd / even numbers. Round any whole number to a required degree of accuracy (10, 100, 1000) Use approximation before calculating Use known facts and place value to multiply and divide mentally.	Find pairs with sum of 100; multiples of 50 with sum 1000, decimals with sum of 0.1, 1, 10 Add/subtract any pair of two-digit numbers including crossing 100; Derive sums and differences, e.g. 760 ± 280. Add/subtract a multiple of 10, 100, 1000 and adjust. Extend written methods to column + and –numbers involving decimals. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Mixed operation problem solving.	Identify and use appropriate operations (including combinations of operations) to solve word problems. Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication Use relationship between multiplication and division. Multiply mentally any two-digit number by a one-digit number. Divide numbers up to 4-digits by a two-digit whole number using the formal written method of short division. Mixed operation problem solving. Find easy methods for multiplying and dividing by 50.	Represent, extract and interpret data in a line graph (for example miles to kilometres). Recognise that intermediate points have meaning Calculate and interpret the mean as an average Interpret a simple pie chart using fractions or percentages Solve a problem by representing, extracting and interpreting data in frequency tables and bar charts with grouped discrete data.

	Measurement	Geometry – Properties of Shapes	Geometry – Position, movement and scales	Fractions, Decimals and Percentages
YEAR 6 Objectives to be covered during the Autumn Term	Use, read and write standard metric units of length, km, m, cm, mm, including their abbreviations and relationships between them. Convert between units, such as m to km, cm or mm to m. This should include seconds and minutes as well. Solve problems involving the calculation and conversion of units of measure using decimal notation up to three decimals places where appropriate. Know mile and kilometre equivalents and approximate metric equivalents for pounds and ounces. Suggest suitable units and equipment to measure or estimate length. Record estimates and measurements from scales to a suitable degree of accuracy. Read scales. Use all four operations to solve measurement word problems including time.	Compare and classify geometric shapes based on their properties and sizes Find unknown angles in any triangles, quadrilaterals, and regular polygons Draw 2d shapes using given dimensions and angles. Recognise, describe and build simple 3d shapes including nets.	Read and plot co-ordinates in all four quadrants. Draw and translate simple shapes on the coordinate plain and reflect them in the axis.	Order fractions by converting to common denominator, and position them on a number line. Reduce fractions by cancelling. Change an improper fraction to a mixed number and vice versa. Use fractions as 'operators'; find fractions of numbers and quantities to include problem solving. Begin to convert fractions to decimal using division. Express simple fractions as percentages and find simple percentages of whole number quantities Use decimal notation for tenths and hundredths; extend to thousandths for measurements. Know what each digit represents. Give a decimal line between two others (e.g 3.4 and 3.5) Order a set of mixed numbers of measurements up to three decimal places. Mixed operation problem solving.

Number	Properties of number			
YEAR 6 Objectives to be covered during the Autumn Term	• Identify common factors and common multiples. • Use tests of divisibility • Find prime factors and factorise numbers into prime factors			