

YEAR 5	
Number and Place Value	<ul style="list-style-type: none"> • Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit • Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000 • Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero • Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 • Solve number problems and practical problems that involve all of the above • Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
Fractions	<ul style="list-style-type: none"> • Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. • Compare and order fractions whose denominators are all multiples of the same number. • Read, write, order and compare numbers with up to three decimal places. • Round decimals with two decimal places to the nearest whole number and to one decimal place. • Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths. • Read and write decimal numbers as fractions (e.g. $0.71 = \frac{71}{100}$). • Recognise the per cent symbol (%) and understand that per cent relates to “number of parts per hundred”, and write percentages as a fraction with denominator 100 as a decimal fraction. • Add and subtract fractions with the same denominator and multiples of the same number. • Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (e.g. $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$). • Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.
Ratio and Proportion	<ul style="list-style-type: none"> • Pupils use multiplication and division as inverses to support the introduction of ratio in year 6, for example, by multiplying and dividing by powers of 10 in scale drawings or by multiplying and dividing by powers of a 1000 in converting between units such as kilometres and metres. • Pupils should be taught throughout that percentages, decimals and fractions are different ways of expressing proportions. • They recognise that percentages are proportions of quantities as well as operators on quantities.
Addition and Subtraction	<ul style="list-style-type: none"> • Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) • Add and subtract numbers mentally with increasingly large numbers. • Use rounding 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
Multiplication and Division	<ul style="list-style-type: none"> • Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. • Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers • Establish whether a number up to 100 is prime and recall prime numbers up to 19 • Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers • Multiply and divide numbers mentally drawing upon known facts • Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context
Geometry - Shape	<ul style="list-style-type: none"> • Identify 3-D shapes, including cubes and other cuboids, from 2-D representations • Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles • Draw given angles, and measure them in degrees (o) • Identify: <ul style="list-style-type: none"> -angles at a point and one whole turn (total 360°) -angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°) -other multiples of 90° • Use the properties of rectangles to deduce related facts and find missing lengths and angles • Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.

Statistics	<ul style="list-style-type: none">• Complete, read and interpret information in tables, including timetables.• Solve comparison, sum and difference problems using information presented in a line graph• To find the mode, median, mean and range of data.
Measures	<ul style="list-style-type: none">• Convert units of measurement for length, weight & capacity.• Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.• Measure & calculate the perimeter of composite rectilinear shapes in cm & m.• Calculate & compare the area rectangles (including squares) and including standard units, square cm and square m.• Estimate area of irregular shapes.• Estimate volume and capacity.• To solve problems involving converting between units of time.• To use all 4 operations to solve problems involving measure (length, mass, volume & money) using decimal notation, including scaling.