



Number: Place value			
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 including through zero.			
Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10000 and 100000			
Solve number problems and practical problems that involve reading, ordering, comparing and rounding increasingly large numbers and negative numbers.			
Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.			
Number: Addition and subtraction			
Add and subtract numbers mentally with increasingly large numbers.			
Add and subtract whole numbers, with more than 4 digits, including using formal columnar addition and subtraction written methods.			
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.			
Number: Multiplication and division			
Multiply and divide numbers mentally drawing upon known facts.			
Multiply and divide whole numbers and decimal numbers by 10, 100 and 1000.			
Multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for 2-digit numbers.			
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.			
Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.			
Recognise and use square numbers and cube numbers and the notation for squared (2) and cubed (3)			
Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.			
Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign.			
Number: Prime 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			
Number: Fractions			
Compare and order fractions whose denominators are multiples of the same number.			
Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths.			
Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example $2/5 + 4/5 = 6/5 = 1 \frac{1}{5}$]			
Add and subtract fractions with the same denominator and denominators that are multiples of the same number.			
Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.			
Read and write decimal numbers as fractions [for example $0.71 = 71/100$]			
Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.			
Numbers: Decimals			
Count with fractions and decimals including bridging 0, for example using a number line.			
Read, write, order and compare numbers with up to three decimal places.			
Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.			

Round decimals with two decimal places to the nearest whole number and to one decimal place.			
Solve problems involving numbers with up to three decimal places.			
Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.			
Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling; and check the reasonableness of their answers to problems.			
Number: Percentages			
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, and as a decimal.			
Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.			
Measurement: Length, Mass, Capacity and Volume			
Convert between different units of metric measure (for example, km and m; cm and m; cm and mm; g and kg; l and ml) and solve problems involving different units of metric measure.			
Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.			
Solve problems involving converting between units of time.			
Estimate volume [for example using 1 cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water]			
Use all four operations to solve problems involving measure using decimal notation, including scaling.			
Measurement: Perimeter and Area			
Measure and calculate the perimeter of composite rectilinear shapes in cm and m			
Calculate and compare the area of rectangles (including squares), and including using standard units, cm^2 , m^2 estimate the area of irregular shapes.			
Geometry: Properties of Shapes and Angles			
Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.			
Draw given angles, and measure them in degrees ($^\circ$)			
Identify: 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.			
Identify 3D shapes, including cubes and other cuboids, from 2D representations.			
Draw parallel and perpendicular lines accurately and use conventional markings to show right angles.			
Solve problems using angle sum facts to find missing angles.			
Geometry: Position and direction			
Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.			
Statistics			
Solve comparison, sum and difference problems using information presented in a line graph.			
Complete, read and interpret information in tables including timetables.			