

**A year 1 mathematician**
**Number**

- I can count reliably to 100.
- I can count on and back in 1s, 2s, 5s and 10s from any given number up to 100.
- I can write all numbers in words to 20.
- I can say the number that is one more or one less than a number to 100.
- I can recall all pairs of addition and subtraction number bonds to 20.
- I can add and subtract 1-digit and 2-digit numbers to 20, including zero.
- I know the signs + - =.
- I can solve a missing number problem.
- I can solve a one-step problem using addition and subtraction, using concrete objects and pictorial representations.

**Measurement and geometry**

- I recognise all coins.
- I recognise and can name the 2D shapes: circle, triangle, square and rectangle.
- I recognise and can name the 3D shapes: cuboid, pyramid, sphere.
- I can name the days of the week and months of the year.
- I can tell the time to o'clock and half past the hour.

**A year 2 mathematician**
**Number**

- I can read and write all numbers to at least 100 in numerals and words.
- I recognise odd and even numbers to 100.
- I can count in steps of 2, 3 and 5 from 0.
- I recognise and can define the place value of each digit in a 2 digit number.
- I can compare and order numbers from 0 to 100 using the  $<$   $>$  and  $=$  signs.
- I can name the fractions  $\frac{1}{3}$ ,  $\frac{1}{4}$ ,  $\frac{1}{2}$  and  $\frac{3}{4}$  and can find fractional values of shapes, lengths and numbers.
- I can recall and use multiplication and division facts for the 2, 5 and 10x tables.
- I can add and subtract a 2-digit number and ones.
- I can add and subtract a 2-digit number and tens.
- I can add and subtract two 2-digit numbers.
- I can add three 1-digit numbers.
- I can solve problems involving addition and subtraction.
- I understand and can use commutivity in relation to addition, subtraction, multiplication and division.

**Measurement, geometry and statistics**

- I can choose and use appropriate standard units to estimate length, height, temperature and capacity.
- I can tell and write the time to 5 minute intervals.
- I recognise and can use the symbols  $\pounds$  and  $p$  when solving problems involving addition and subtraction of money.
- I can describe the properties of 2D and 3D shapes to include edges, vertices and faces.
- I can interpret and construct pictograms, tally charts, block diagram and simple tables.

**A year 3 mathematician**
**Number**

- I can compare and order numbers to 1000 and read and write numbers to 1000 in numerals and words.
- I can count from 0 in multiples of 4, 8, 50 and 100.
- I can recognise the value of each digit in a 3-digit number.
- I understand and can count in tenths, and find the fractional value of a given set.
- I can add and subtract fractions with a common denominator.
- I can derive and recall multiplication facts for 3, 4 and 8x tables.
- I can add and subtract mentally combinations of 1-digit and 2-digit numbers.
- I can add and subtract numbers with up to 3-digits using formal written methods.
- I can write and calculate mathematical statements for multiplication and division using the 2x, 3x, 4x, 5x, 8x and 10x tables.
- I can calculate 2-digit x 1-digit.
- I can solve number problems using one and two step problems

**Measurement, geometry and statistics**

- I can identify right angles and can compare other angles stating whether they are greater or smaller than a right angle.
- I can identify horizontal and vertical lines and pairs of perpendicular and parallel lines.
- I can tell the time to the nearest minute and use specific vocabulary, including seconds, am & pm.
- I can measure, compare, add and subtract using common metric measures.
- I can solve one and two step problems using information presented in scaled bar charts, pictograms and tables.

**A year 4 mathematician**
**Number**

- I can recall all multiplication facts to 12 x 12.
- I can round any number to the nearest 10, 100 or 1000 and decimals with one decimal place to the nearest whole number.
- I can count backwards through zero to include negative numbers.
- I can compare numbers with the same number of decimal places up to 2-decimal places.
- I can recognise and write decimal equivalents of any number of tenths or hundredths.
- I can add and subtract with up to 4-decimal places using formal written methods of columnar addition and subtraction.
- I can divide a 1 or 2-digit number by 10 or 100 identifying the value of the digits in the answer as units, tenths and hundredths.
- I can multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout.
- I can solve two step addition and subtraction problems in context.
- I can solve problems involving multiplication.

**Measurement, geometry and statistics**

- I can compare and classify geometrical shapes, including quadrilaterals and triangles, based on their properties and sizes.
- I know that angles are measured in degrees and can identify acute and obtuse angles.
- I can compare and order angles up to two right angles by size.
- I can measure and calculate the perimeter of a rectilinear figure in cm and m.
- I can read, write and convert between analogue and digital 12 and 24 hour times.
- I can interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.



**A year 5 mathematician**
**Number**

- I can count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000.
- I recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.
- I recognise mixed numbers and improper fractions and can convert from one to the other.
- I can read and write decimal numbers as fractions.
- I recognise the % symbol and understand percent relates to a number of parts per hundred.
- I can write percentages as a fraction with denominator hundred and as a decimal fraction.
- I can compare and add fractions whose denominators are all multiples of the same number.
- I can multiply and divide numbers mentally drawing on known facts up to  $12 \times 12$ .
- I can round decimals with 2dp to the nearest whole number and to 1dp.
- I recognise and use square numbers and cube numbers; and can use the notation  $^2$  and  $^3$ .
- I can multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.
- I can multiply numbers up to 4-digit by a 1 or 2-digit number using formal written methods, including long multiplication for a 2-digit number.
- I can divide numbers up to 4-digits by a 1-digit number.
- I can solve problems involving multiplication and division where large numbers are used by decomposing them into factors.
- I can solve addition and subtraction multi-step problems in context, deciding which operations and methods to use and why.
- I can solve problems involving numbers up to 3dp.

**Measurement, geometry and statistics**

- I know that angles are measured in degrees.
- I can estimate and compare acute, obtuse and reflex angles.
- I can draw given angles and measure them in degrees.
- I can convert between different units of metric measures and estimate volume and capacity.
- I can measure and calculate the perimeter of composite rectilinear shapes in cm and m.
- I can calculate and compare the areas of squares and rectangles including using standard units ( $\text{cm}^2$  and  $\text{m}^2$ ).
- I can solve comparison, sum and difference problems using information presented in a line graph.



**A year 6 mathematician**
**Number**

- I can use negative numbers in context, and calculate intervals across zero.
- I can round any whole number to a required degree of accuracy and solve problems which require answers to be rounded to a specific degree of accuracy.
- I can solve problems involving the relative sizes of two quantities where the missing values can be found by using integer multiplication and division facts.
- I can use common factors to simplify fractions; use common multiples to express fractions in the same denomination.
- I can solve problems involving the calculation of percentages.
- I can multiply 1-digit numbers with up to two decimal places by whole numbers.
- I can perform mental calculations, including with mixed operations with large numbers.
- I can divide numbers up to 4-digits by a 2-digit whole number using formal written methods of long division and interpret remainder in various ways.
- I use my knowledge of order of operations to carry out calculations involving all four operations.
- I can add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
- I can multiply simple pairs of proper fractions, writing the answer in its simplest form.
- I can divide proper fractions by whole numbers.
- I can associate a fraction with division and calculate decimal fraction equivalents.
- I can express missing number problems algebraically.
- I can find pairs of numbers that satisfy number sentences involving two unknowns.

**Measurement, geometry and statistics**

- I can recognise, describe and build simple 3D shapes, including making nets.
- I can compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangle, quadrilateral and regular polygons.
- I can illustrate and name parts of circles, including radius, diameter and circumference and know that the radius is half the diameter.
- I can 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 visa versa, using decimal notation to up to 3 decimal places.
- I can calculate the area of a parallelogram and triangles and calculate, estimate and compare volume of cubes and cuboids using standard units.
- I can interpret and construct pie charts and line graphs and use these to solve problems.



