

## Maths - Key Learning Points

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1 Counts to and across 100, forwards and backwards, beginning with zero or one, or from any given number	1 Compares and orders numbers from 0 up to 100 using < > and = signs	1 Count from zero in multiples of four, eight, 50 and 100.	1 Count in multiples of six, seven, nine, 25 and 1000	1 Read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit; including counting forwards and backwards in steps of powers of 10.	1 Round any whole number to a required degree of accuracy.
2 Counting, reading and writing numbers to 100 in numerals and numbers one to 20 in numerals and words; counting in multiples of two, five and ten	2 Recognise the place value of each digit in a 2-digit number	2 Recognise the place value of each digit in a 3-digit number and find 100 more or less than a given number.	2 Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) and find 1000 more or less than a given number	2 Use and interpret negative numbers in context, and calculate intervals across zero.	2 Decide which methods to use when solving multi-step problems involving addition, subtraction, multiplication and division, using estimation to check answers.
3 Given a number within 100, identifying one more and one less	3 Count in steps of two, three and five from zero, and in tens from any number, forward and backward	3 Use place value and number facts to solve number problems and practical problems.	3 Round any number to the nearest ten, hundred or thousand	3 Add and subtract whole numbers with more than 4 digits flexibly.	3 Divide numbers up to 4 digits by a one- or two-digit whole number using the appropriate formal written methods of short and long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate.
4 Representing and using number bonds and related subtraction facts within 20	4 Recall and use addition and subtraction facts to 20 fluently	4 Add and subtract number mentally, including: a 3-digit number and ones; a 3-digit number and tens; a 3-digit number and hundreds.	4 Solve addition and subtraction two-step problems in contexts, including measures and money, deciding which operations and methods to use and why, including columnar addition and subtraction where appropriate	4 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.	4 Identify common factors, common multiples and prime numbers.
5 Solving one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and solving missing-number problems	5 Solves problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures	5 Apply addition and subtraction to numbers with up to three digits using the columnar addition method.	5 Solve multiplication and division problems using recall of the multiplication tables up to $12 \times 12$ including integer scaling and correspondence problems	5 Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.	5 Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
6 Solving problems that involve grouping and sharing, including halving and doubling	6 Recall and use multiplication and division facts for the two, five and ten multiplication tables, including recognising odd and even numbers	6 Solve scaling and correspondence problems for multiplication and division using the multiplication tables that are known, including problems that involve multiplying a two-digit number by a one-digit number.	6 Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit and record using formal written layout where appropriate	6 Compare and order fractions, including mixed number and improper fractions whose denominators are all multiples of the same number.	6 Multiply simple pairs of proper fractions and divide a proper fraction by a whole number, writing answers in their simplest form.
7 Comparing, describing and solving practical problems for length and height, mass or weight, and capacity and volume	7 Solves problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts	7 Recognise, find and write fractions of a discrete set of objects, including unit fractions and non-unit fractions with small denominators.	7 Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number	7 Solve problems involving numbers up to 3 decimal places including reading, writing, ordering and comparing numbers.	7 Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.
8 Comparing, describing and solving practical problems for time and telling the time to the hour and half past the hour; drawing the hands on a clock face to show these times	8 Recognise, find, name and write fractions one half, one third, one quarter, two quarters, and three quarters of a length, shape, set of objects or quantity	8 Measure, compare, add and subtract: lengths (m, cm, mm); mass (kg, g); volume or capacity (l, ml).	8 Recognise equivalent fractions and write decimal equivalents to one quarter, one half, three quarters and any number of tenths or hundredths including in the context of simple measure and money problems	8 Use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation, including scaling.	8 Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison.
9 Recognising and naming common 2-D shapes, including rectangles (including squares), circles and triangles	9 Solves simple problems in a practical context involving addition and subtraction of mass, capacity, length and money including giving change	9 Telling and writing the time from an analogue clock and in 12-hour format, and comparing durations of events.	9 Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	9 Convert between different units of measure (e.g. kilometre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).	9 Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.
10 Recognising and naming common 3-D shapes, including cuboids (including cubes), pyramids and spheres.	10 Compare and sort common 2-D and 3-D shapes and everyday objects and order and arrange combinations in patterns and sequences	10 Identify right angles; recognise that two right angles make a half-turn, three right angles make three quarters of a turn and four right angles a complete turn; identifying whether angles are greater than or less than a right angle.	10 Read, write and convert time between analogue and digital 12- and 24-hour clocks	10 Calculate and compare the areas of rectangles, including standard units of square cm and square m, and estimate the area of irregular shapes.	10 Understand and use algebraic notation to solve simple problems.
	11 Use mathematical vocabulary to describe position, direction and movement including movement in a straight line, and distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)	11 Interpreting and presenting data using bar charts, pictograms and tables.	11 Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days	11 Know angles are measured in degrees and estimate, compare, draw and measure acute, obtuse and reflex angles.	11 Use, read and write standard units; converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places.
	12 Ask and answer question about totalling and comparing categorical data		12 Identify lines of symmetry in 2-D shapes presented in different orientations	12 Identify angles at a point and one whole turn (total 360°); angles at a point on a straight line and half a turn (total 180°); other multiples of 90°.	12 Choose and use the appropriate formula for finding the area of 2-D shapes, including parallelograms and triangles.
	13 13. Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times		13 Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	13 Identify, describe and represent coordinates in the first quadrant.	13 Compare and classify geometric shapes based on their properties and sizes and find unknown angles in triangles, quadrilaterals and regular polygons.
				14 Complete, read and interpret information in tables, including timetables.	14 Draw 2-D shapes using given dimensions and angles.
					15 Draw and translate simple shapes on the coordinate plane, in all four quadrants, and reflect them in the axes.
					16 Interpret data and construct pie charts and line graphs, using these to solve problems and calculate and interpret the mean as an average.