



## Progression of Knowledge, Skills and Understanding - Mathematics

	Year 1	Year 2
<b>Place Value: Counting</b>	Count to and across 100, forwards and backwards, beginning with 0 or 1, from any given number. Count numbers to 100 in numerals, count in multiples of twos, fives and tens	Count in steps of 2,3, and 5 from 0, and in tens from any number, forward and backward
<b>Place Value: Represent</b>	Identify and represent numbers using objects and pictorial representations. Read and write numbers to 100 in numerals Read and write numbers from 1 to 20 in numerals and in words.	Read and write numbers to at least 100 in numerals and in words. Identify, represent and estimate numbers using different representations including the number line.
<b>Place Value: Use Place Value and Compare</b>	Given a number, identify one more and one less  Begin to use > < and = signs	Recognise the place value of each digit in a two-digit number (tens, ones) Compare and order numbers from 0 up to 100 Use > < and = signs
<b>Place Value: Problems and Rounding</b>		Use Place value and number facts to solve problems

	<b>Year 1</b>	<b>Year 2</b>
<b>Addition &amp; Subtraction: Recall, Represent, Use</b>	Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. Represent and use number bonds and related subtraction facts within 20	Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100 Show that addition of two numbers can be done in any order (Commutative) and subtraction of one number from another cannot. Recognise and use the inverse relationship between addition and subtraction and use these to check calculations and solve missing number problems.
<b>Addition and Subtraction: Calculations</b>	Add and subtract one digit and two-digit numbers to 20 including zero	Add and subtract numbers using concrete objects, pictorial representations and mentally including: <ul style="list-style-type: none"> <li>- A two digit number and ones</li> <li>- A two digit number and tens</li> <li>- Two two digit numbers</li> <li>- Adding three one digit numbers</li> </ul>
<b>Addition and Subtraction: Solve Problems</b>	Solve one step problems that involve addition and subtraction using concrete objects and pictorial representations and missing number problems such as $7 = ? - 9$	Solve problems with addition and subtraction; Use concrete objects and pictorial representations including those involving numbers quantities and measures to solve problems using addition and subtraction Apply increasing knowledge of mental and written methods when solving problems with addition and subtraction
<b>Multiplication &amp; Division: Recall, Represent, Use</b>	Count in 2s, 5s, 10s	Recall and use multiplication and division facts for the 2,5 and 10 Multiplication tables, including recognising odd and even numbers. Show that multiplication of two numbers can be done in any order (Commutative) and division of one number by another cannot.

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<b>Multiplication &amp; Division: Calculations</b>		Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division ( $\div$ ) and (=) signs
<b>Multiplication &amp; Division: Solve Problems</b>	Solve one step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
<b>Fractions: Recognise and Write</b>	Recognise, find and name a half as one of two equal parts of an object, shape or quantity Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	Recognise, find name and write fractions $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{2}{4}$ , and $\frac{3}{4}$ of a length, shape, set of objects or quantity
<b>Fractions: Compare</b>		Recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$
<b>Fractions: Calculations</b>		Write simple fractions eg. $\frac{1}{2}$ of 6 = 3
<b>Measurement: Using Measures</b>	Compare, describe and solve practical problems for: Lengths and heights, Mass/weight, Capacity and volume, Time Measure and begin to record the following: Lengths and heights, Mass/weight, Capacity and volume, Time (hours, minutes, seconds)	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm), mass (kg/g), temperature $^{\circ}$ , capacity (Litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels Compare and order lengths, mass, volume/capacity and record the results using > < and =

	<b>Year 1</b>	<b>Year 2</b>
<b>Measurement: Money</b>	Recognise and know the different denominations of coins and notes	Recognise and use symbols for pounds (£) and pence (p) Combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money Solve simple problems in a practical context involving addition and subtraction of money of the same unit including giving change
<b>Measurement: Time</b>	Sequence events in chronological order and use language (e.g. before and after, next, first, today, yesterday, tomorrow, morning, afternoon, evening) Recognise and use language relating to dates including days of the week, weeks, months and years. Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	Compare and sequence intervals of time. Tell and write the time to five minutes including quarter past/to the hour and draw the hands on the clock face to show these times. Know the number of minutes in an hour and the number of hours in the day.
<b>Geometry: 2 D Shapes</b>	Recognise and name common 2 D shapes (e.g., rectangles (including squares), circles and triangles)	Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line. Identify 2D shapes on the surface of 3D shapes (e.g., a circle on a cylinder and a triangle on a pyramid) Compare and sort common 2D shapes and everyday objects.
<b>Geometry: 3 D Shapes</b>	Recognise and name common 3D shapes (e.g., cuboids (including cubes), pyramids and spheres)	Recognise and name common 3D shapes (e.g., cuboids (including cubes) pyramids and spheres) Compare and sort common 3D shapes and everyday objects

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<b>Geometry: Position &amp; Direction</b>	Describe position, direction and movement, including whole, half, quarter and three-quarter turns	Order and arrange combinations of mathematical objects in patterns and sequences Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three quarter, half and three quarter turns
<b>Statistics:: Present and Interpret</b>	Begin to interpret class block diagrams	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.
<b>Statistics:: Solve Problems</b>		Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity Ask and answer questions about totalling and comparing categorical data
<b>Algebra</b>	Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = ? - 9$	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems