

## Mathematics Curriculum

### YEAR ONE

<p><b>Number and place value</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>▪ count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</li> <li>▪ count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens</li> <li>▪ given a number, identify one more and one less</li> <li>▪ identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least</li> <li>▪ read and write numbers from 1 to 20 in numerals and words.</li> </ul>	<p><b>Addition and subtraction</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>• read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs</li> <li>• represent and use number bonds and related subtraction facts within 20</li> <li>• add and subtract one-digit and two-digit numbers to 20, including zero</li> <li>• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = \square - 9</math>.</li> </ul>	<p><b>Multiplication and division</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>▪ 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.</li> </ul>	<p><b>Fractions</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>▪ recognise, find and name a half as one of two equal parts of an object, shape or quantity</li> <li>▪ recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</li> </ul>
<p><b>Measurement</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>▪ compare, describe and solve practical problems for: <ul style="list-style-type: none"> <li>▪ lengths and heights (e.g. long/short, longer/shorter, tall/short, double/half)</li> <li>▪ mass or weight (e.g. heavy/light, heavier than, lighter than)</li> <li>▪ capacity/volume (full/empty, more than, less than, quarter)</li> <li>▪ time (quicker, slower, earlier, later)</li> </ul> </li> <li>▪ measure and begin to record the following: <ul style="list-style-type: none"> <li>▪ lengths and heights</li> <li>▪ mass/weight</li> <li>▪ capacity and volume</li> <li>▪ time (hours, minutes, seconds)</li> </ul> </li> <li>▪ recognise and know the value of different denominations of coins and notes</li> <li>▪ sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening <ul style="list-style-type: none"> <li>• recognise and use language relating to dates, including days of the week, weeks, months and years</li> <li>• tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</li> </ul> </li> </ul>	<p><b>Geometry</b> <b>Properties of shapes</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>▪ recognise and name common 2-D and 3-D shapes, including: <ul style="list-style-type: none"> <li>▪ 2-D shapes (e.g. rectangles (including squares), circles and triangles)</li> <li>▪ 3-D shapes (e.g. cuboids (including cubes), pyramids and spheres).</li> </ul> </li> </ul>	<p><b>Position and direction</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>▪ describe position, directions and movements, including half, quarter and three-quarter turns.</li> </ul>	

## YEAR TWO

<p><b>Number and place value</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>-count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward</li> <li>-recognise the place value of each digit in a two-digit number (tens, ones)</li> <li>-identify, represent and estimate numbers using different representations, including the number line</li> <li>-compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs</li> <li>- read and write numbers to at least 100 in numerals and in words</li> <li>-use place value and number facts to solve problems.</li> </ul>	<p><b>Addition and subtraction</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>-solve problems with addition and subtraction:</li> <li>-using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>-applying their increasing knowledge of mental and written methods</li> <li>-recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</li> <li>-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> </li> <li>-show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</li> <li>-recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</li> </ul>	<p><b>Multiplication and division</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>-recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</li> <li>- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs</li> <li>-show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</li> <li>- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.</li> </ul>	<p><b>Fractions</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>- recognise, find, name and write fractions <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity</li> <li>-write simple fractions e.g. <math>\frac{1}{2}</math> of 6 = 3 and recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math>.</li> </ul>
<p><b>Measurement</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>- choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</li> <li>-compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =</li> <li>-recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</li> <li>- find different combinations of coins that equal the same amounts of money</li> <li>-solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</li> <li>-compare and sequence intervals of time</li> <li>- 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.</li> </ul>	<p><b>Geometry</b> <b>Properties of shapes</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>-identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line</li> <li>- identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces</li> <li>-identify 2-D shapes on the surface of 3-D shapes, for example a circle on a cylinder and a triangle on a pyramid</li> <li>-compare and sort common 2-D and 3-D shapes and everyday objects.</li> </ul>	<p><b>Position and direction</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>-order and arrange combinations of mathematical objects in patterns</li> <li>- use mathematical vocabulary to describe position, direction and movement including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise), and movement in a straight line.</li> </ul>	<p><b>Statistics</b> Pupils should be taught to:</p> <ul style="list-style-type: none"> <li>- interpret and construct simple pictograms, tally charts, block diagrams and simple tables</li> <li>- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</li> <li>- ask and answer questions about totalling and comparing categorical data.</li> </ul>