






















# Maths Learning Ladders



Year 2	Areas of Study
<p>Number: Place Value</p>	<ul style="list-style-type: none"> <li> Read and write numbers to at least 100 in numerals and in words.</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 <math>&lt;</math>, <math>&gt;</math> and <math>=</math> signs.</li> <li> Use place value and number facts to solve problems.</li> <li> Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward.</li> </ul>
<p>Number: Addition and Subtraction</p>	<ul style="list-style-type: none"> <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: a two-digit number and ones; a two-digit number and tens; two two-digit numbers; adding three one-digit numbers.</li> <li> Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.</li> <li> Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods.</li> <li> Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.</li> </ul>
<p>Number: Multiplication and Division</p>	<ul style="list-style-type: none"> <li> Recall and use multiplication and division facts for the 2, 5 and 10 times 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 (<math>\times</math>), division (<math>\div</math>) and equals (<math>=</math>) signs.</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> <li> Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</li> </ul>

<p>Number: Fractions</p>	<ul style="list-style-type: none"> <li> Recognise, find, name and write fractions <math>1/3</math>, <math>1/4</math>, <math>2/4</math> and <math>3/4</math> of a length, shape, set of objects or quantity.</li> <li> Write simple fractions for example, <math>1/2</math> of <math>6 = 3</math> and recognise the equivalence of <math>2/4</math> and <math>1/2</math>.</li> </ul>
<p>Measurement</p>	<ul style="list-style-type: none"> <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> Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (<math>^{\circ}\text{C}</math>); 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 <math>&gt;</math>, <math>&lt;</math> and <math>=</math></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> <li> Know the number of minutes in an hour and the number of hours in a day.</li> <li> Compare and sequence intervals of time.</li> </ul>
<p>Geometry: Properties of Shape</p>	<ul style="list-style-type: none"> <li> Identify and describe the properties of 2-D shapes, including the number of sides and line 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>Geometry: Position and Direction</p>	<ul style="list-style-type: none"> <li> 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 turns (clockwise and anti-clockwise).</li> <li> Order and arrange combinations of mathematical objects in patterns and sequences</li> </ul>
<p>Statistics</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>