

## Year 1 & 2 Mathematics Assessment (NC 2014)

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<p><b>At the end of the year, pupils working at EXPECTED levels should be able to:</b></p> <p><b>Year 1</b></p> <p><b>Range: 1c-1a</b></p>	<b>Number and place value</b>	<b>Addition and subtraction</b>	<b>Multiplication and division</b>	<b>Fractions, Decimals &amp; Percentages</b>
	<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>	<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>	<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>	<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>At the end of the year, pupils working at EXPECTED levels should be able to:</b></p> <p><b>Year 2</b></p> <p><b>Range: 1a-2b</b></p>	<b>Measurement</b>	<b>Geometry - Properties of Shapes</b>	<b>Geometry - Position and Direction</b>	<b>Statistics</b>
	<ul style="list-style-type: none"> <li>compare, describe and solve practical problems for:                             <ul style="list-style-type: none"> <li>lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]</li> <li>mass/weight [for example, heavy/light, heavier than, lighter than]</li> <li>capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</li> <li>time [for example, 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 [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</li> <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>	<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 [for example, rectangles (including squares), circles and triangles]</li> <li>3-D shapes [for example, cuboids (including cubes), pyramids and spheres].</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>describe, position, direction and movement including whole, half, quarter and three quarter turns.</li> </ul>	<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>
<p><b>At the end of the year, pupils working at EXPECTED levels should be able to:</b></p> <p><b>Year 2</b></p> <p><b>Range: 1a-2b</b></p>	<b>Number and place value</b>	<b>Addition and subtraction</b>	<b>Multiplication and division</b>	<b>Fractions, Decimals &amp; Percentages</b>
	<ul style="list-style-type: none"> <li>count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and 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>	<ul style="list-style-type: none"> <li>solve problems with addition and subtraction:                             <ul style="list-style-type: none"> <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> </ul> </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 solve missing number problems.</li> </ul>	<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>	<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>, <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><b>At the end of the year, pupils working at EXPECTED levels should be able to:</b></p> <p><b>Year 2</b></p> <p><b>Range: 1a-2b</b></p>	<b>Measurement</b>	<b>Geometry - Properties of Shapes</b>	<b>Geometry - Position and Direction</b>	<b>Statistics</b>
	<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> <li>know the number of minutes in an hour and the number of hours in a day.</li> </ul>	<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>	<ul style="list-style-type: none"> <li>order and arrange combinations of mathematical objects in patterns and sequences</li> <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 anticlockwise).</li> </ul>	<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>

### Milestone 1