


CARRINGTON INFANT SCHOOL – PROGRESSION DOCUMENT– MATHS

 <b>Maths Skills and Knowledge Progression</b>	<b>EYFS</b>  <b>Children at the expected level of development will:</b>	<b>Year 1</b>	<b>Year 2</b>
Place Value	<ul style="list-style-type: none"> <li>• Count objects, actions and sounds.</li> <li>• Compare numbers</li> <li>• Link the number symbol (numeral) with its cardinal number value.</li> <li>• Count beyond 10</li> <li>• Explore the composition of numbers to 10</li> <li>• Subitise (recognise quantities without counting) up to 5</li> </ul>	<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 numbers to 100 in numerals; count in multiples of twos, fives and Tens</li> <li>• Identify and represent numbers using objects and pictorial representations</li> <li>• Read and write numbers to 100 in numerals</li> <li>• Read and write numbers from 1 to 20 in numerals and words</li> <li>• Given a number, identify one more and one less</li> </ul>	<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>• Read and write numbers to at least 100 in numerals and in words</li> <li>• Identify, represent and estimate numbers using different representations, including the number line</li> <li>• Recognise the place value of each digit in a two digit number (tens, ones)</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> </ul>

<p>Addition &amp; Subtraction</p>	<ul style="list-style-type: none"> <li>• Understand the 'one more than/one less than' relationship between consecutive numbers</li> <li>• Automatically recall number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts</li> </ul>	<ul style="list-style-type: none"> <li>• Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=)</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>• 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>• Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>• Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</li> <li>• Applying their increasing knowledge of mental and written methods</li> <li>• Show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot</li> </ul>
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Addition & Subtraction			<ul style="list-style-type: none"> <li>Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</li> </ul>
Multiplication & Division		<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>Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</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>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 (=) signs</li> </ul>

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<p>Multiplication &amp; Division</p>			<ul style="list-style-type: none"> <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>Fractions</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>	<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>Recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math> write simple fractions for example, <math>\frac{1}{2}</math> of <math>6 = 3</math></li> </ul>
<p>Measurement</p>	<ul style="list-style-type: none"> <li>Compare length, weight and capacity</li> </ul>	<ul style="list-style-type: none"> <li>Compare, describe and solve practical problems for:                             <ul style="list-style-type: none"> <li>Lengths and heights,</li> <li>Mass/weight</li> <li>Capacity and volume</li> <li>Time,</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> </ul>	<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 (<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> </ul>

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<p>Money</p>		<ul style="list-style-type: none"> <li>• Recognise and know the value of different denominations of coins and notes</li> </ul>	<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> </ul>
<p>Time</p>		<ul style="list-style-type: none"> <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>• 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>

<p>Geometry</p>	<ul style="list-style-type: none"> <li>• Select, rotate and manipulate shapes in order to develop spatial reasoning skills.</li> <li>• Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can</li> <li>• Continue, copy and create recreating patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Recognise and name common 2D shapes [for example, rectangles (including squares), circles and triangles]</li> <li>• Recognise and name common 3D shapes [for example, cuboids (including cubes), pyramids and spheres]</li> <li>• Describe position, direction and movement, including whole, half, quarter and three quarter turns</li> </ul>	<ul style="list-style-type: none"> <li>• Identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line</li> <li>• Identify 2D 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 shapes and everyday objects</li> <li>• Recognise and name common 3 D shapes [for example, cuboids (including cubes), pyramids and spheres]</li> <li>• Identify and describe the properties of 3D shapes {for example edges, vertices and faces]</li> <li>• Compare and sort common 3 D shapes and everyday objects</li> <li>• Order and arrange combinations of mathematical objects in patterns and sequences</li> </ul>
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Geometry			<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> </ul>
Statistics			<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>