

## Mathematics in Year 1

Throughout KS1 pupils will develop their confidence and mental fluency with whole numbers, counting and place value. Pupils will work with numerals, words and the four operations including working with practical resources (for example, beads, counters, money, measuring tools). Pupils will develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. They will be taught to use a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. By the end of KS1 pupils should know the number bonds to 20 and be precise in using and understanding place value. Pupils will develop their ability to read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.

In year 1, pupils will be taught mathematics in the following areas:

- ✚ Number and Place Value
- ✚ Addition and Subtraction
- ✚ Multiplication and Division
- ✚ Fractions
- ✚ Measurement
- ✚ Properties of Shapes
- ✚ Position and direction of shape.

The following outlines further detail of the mathematical understanding which will be developed in year 1.

<b>NUMBER</b>	
<b>Number and place value:</b>	Pupils will count to and across 100 (forwards and backwards). They will begin at 0 or 1 and then count from any given number.
	Pupils will count, read and write numbers to 100 in numerals. They will be able to count in multiples of twos, fives and tens.

	<p>Pupils will be able to identify one more and one less when given a number.</p> <p>Pupils will be able to identify and represent numbers using concrete objects and pictorial representation including a number line. They will become more confident using the language of: equal to, more than, less than (fewer), most, least.</p> <p>Pupils will be able to read and write numbers from 1 to 20 in numerals and words.</p>
<b>Addition and Subtraction</b>	<p>Pupils will be able to read, write and understand mathematical statements involving addition (+), subtraction (-) and equals (=).</p> <p>Pupils will be able to represent and use number bonds to 20. They will become confident in using related subtraction facts within 20.</p> <p>Pupils will begin to add and subtract one-digit and two-digit numbers to 20, including 0.</p> <p>Pupils will become more confident in solving one-step problems involving addition and subtraction, using concrete objects and pictorial representation.</p> <p>Pupils will begin to solve missing number problems such as <math>7 = ? - 9</math></p>
<b>Multiplication and Division</b>	<p>Pupils will begin to solve one-step problems involving multiplication and division. They will use concrete objects and pictorial representation to represent their solutions.</p>
<b>Fractions</b>	<p>Pupils will develop their understanding of fractions recognising, finding and naming a half. They will know that this is one of two equal parts of an object, shape or quantity.</p> <p>Pupils will develop their understanding of fractions recognising, finding and naming a quarter. They will know that this is one of four equal parts of an object, shape or quantity.</p>
<b>MEASUREMENT</b>	
<b>Language</b>	<p>Pupils will compare, describe and solve practical problems for lengths and heights (long/short, longer/shorter, tall/short, double/half).</p>

	<p>Pupils will compare, describe and solve practical problems for mass/weight (heavy/light, heavier than, lighter than)</p> <p>Pupils will compare, describe and solve practical problems for capacity and volume (full/empty, more than, less than, half, half full, quarter)</p> <p>Pupils will compare, describe and solve practical problems for time (quicker, slower, earlier, later).</p>
<b>Measure and record</b>	Pupils will begin to measure and record lengths, heights, mass/weight, capacity/volume and time (hours, minutes and seconds).
<b>Money</b>	Pupils will recognise and know the value of different denominations of coins and notes.
<b>Time</b>	Pupils will be able to sequence events in chronological order using appropriate language (before, after, next, first, today, yesterday, tomorrow, morning, afternoon, evening).
	Pupils will recognise and use language relating to dates: days of the week, weeks, months and years.
	Pupils will become more confident in telling the time to the hour and half past the hour; draw hands on a clock face to show these times.
<b>GEOMETRY</b>	
<b>Properties of Shapes</b>	Pupils will learn to recognise and name common 2-D shapes including rectangles (and squares), circles and triangles.
	Pupils will learn to recognise and name common 3-D shapes including cuboids (and cubes), pyramids and spheres.
<b>Properties of Shapes</b>	Pupils will be able to describe the position, direction and movement of shapes and objects. This will include understanding and using whole, half, quarter and three quarter turn.