



## Year 2 Autumn 2

### Starter suggestions for Number

- Read and write numbers to 100 in figures and words.
- Count on and back in 1s from any one or two-digit number.
- Count on and back in multiples of 2, 5 and 10.
- Order a set of random numbers to 100.
- Recall addition and subtraction facts for each number up to 20.
- Recall doubles of simple 2-digit numbers i.e. numbers in which the ones total less than 10.
- Recall halves of simple even numbers i.e. numbers in which the tens are even.
- Add a single digit number to any 2-digit number.
- Take away a single digit number from 2-digit number.
- Identify number patterns on number lines and hundred squares.

### Starter suggestions for Measurement, Geometry and Statistics

- Identify 2-D shapes in different orientations and begin to describe them.
- Identify 3-D shapes in different orientations and begin to describe them.
- Compare and sort common 2-D and 3-D shapes and everyday objects.
- Order and arrange combinations of mathematical objects in patterns and sequences.
- Describe position, direction and movement, including whole, half, quarter and three-quarter turns.
- Estimate the length and height of familiar items using standard units.
- Tell the time using o'clock, half past, quarter past and quarter to.
- Recognise and count amounts of money.

	Main learning	Rationale
<b>Week 1</b> <b>Counting, multiplication and sorting</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><i>Understand multiplication as repeated addition.</i></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>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 (<i>using repeated addition</i>) within the multiplication tables and write them using the multiplication (<math>\times</math>), and equals (<math>=</math>) signs.</li> <li><i>Compare and sort numbers according to their properties.</i></li> </ul>	<p>When counting, children should be encouraged to identify patterns in the sequences and reason as to why these patterns emerge.</p> <p>Rote counting should be linked to repeated addition and the creation of arrays. Children should learn that multiplication is a convenient way of repeatedly adding a number to itself e.g. <math>2+2+2+2+2+2</math> can be said as <math>2 \times 6</math> (2 added to itself 6 times). The array created can then be used to demonstrate commutativity i.e. that <math>2 \times 6</math> is the same as <math>6 \times 2</math>. Children should make links to real life application of multiplication as repeated addition.</p> <p>Children should begin to relate counting in steps of 2, 3, 5 and 10 to the multiplication tables. The <math>2x</math> table and counting in 2s from different starting points should be used alongside practical equipment to enable children to understand even and odd numbers.</p> <p>Children's work on sorting can be used to consolidate understanding of the properties of numbers, including comparing numbers, odd and even and sequences.</p>
<b>Week 2</b> <b>Statistics</b>	<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> <li><i>Understand subtraction as take away and difference (how many more, how many less/fewer).</i></li> </ul>	<p>Children apply their knowledge of counting in equal steps to work with scales on graphs and charts that count in steps of 2, 5 or 10 or to pictograms in which each symbol is worth more than 1. They also apply their knowledge of place value and calculation to the context of statistics, with a particular focus on difference '<i>How many more...?</i>' and '<i>How many fewer/less...?</i>'</p>
<b>Week 3</b> <b>Fractions and measurement (capacity and volume)</b>	<ul style="list-style-type: none"> <li><i>Understand and use the terms numerator and denominator.</i></li> <li><i>Understand that a fraction can describe part of a set.</i></li> <li><i>Understand that the larger the denominator is, the more pieces it is split into and therefore the smaller each part will be.</i></li> <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>Count on and back in steps of <math>\frac{1}{2}</math> and <math>\frac{1}{4}</math>.</li> <li>Choose and use appropriate standard units to estimate and measure capacity and volume (litres/ml) to the nearest appropriate unit using measuring vessels.</li> <li>Compare and order volume/capacity and record the results using <math>&gt;</math>, <math>&lt;</math> and <math>=</math>.</li> </ul>	<p>Children's knowledge and understanding of fractions develops to include the names of each number in a written fraction and what each number represents. Practical and visual approaches should be used to allow children to see what the numerator and denominator are and how they go together to form a fraction of a shape or quantity.</p> <p>Children are introduced to <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> as the first examples of non-unit fractions.</p> <p>Children also count in fraction steps and see these on a number line, understanding how many halves, quarters and thirds make one whole one/unit.</p> <p>Children learn about liquid volume and use standard units to measure volume and capacity. Place value knowledge is applied in this context when ordering volumes and capacities. The fraction understanding can also be applied to volume and capacity, finding out that it takes four cupfuls to fill the jug, therefore one cupful is <math>\frac{1}{4}</math> of the capacity of the jug and using this information to estimate when the jug is three-quarters full. This should be extended to thirds.</p>



	Main learning	Rationale
<b>Week 4</b> Money	<ul style="list-style-type: none"><li>Recognise and use symbols for pounds (£) and pence (p).</li><li>Combine amounts to make a particular value.</li><li>Find different combinations of coins that equal the same amounts of money.</li><li>Add and subtract money of the same unit, including giving change.</li><li>Solve simple problems in a practical context involving addition and subtraction of money.</li></ul>	<p>Children should become fluent in recognising the values of different coins. Children continue to understand how many pennies each coin is worth and exchange between pennies and 2p, 5p, 10p and 20p coins. This could be done in a Bank role play area.</p> <p>Shop role play could be used when teaching about paying for amounts exactly. This is a good opportunity for children to experience finding all possibilities problems. Combining coins to make given amounts should be linked to addition and number sentences e.g. how many ways can you pay exactly for an item costing 14p?</p> <p>At this stage, children should record £ and p separately. Formal recording of money using decimal places occurs in Year 4.</p>
<b>Week 5</b> Time	<ul style="list-style-type: none"><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>When teaching time, links need to be made with fractions half and quarter, and also counting in 5s. Children should experience geared analogue clocks to recognise how the hour hand moves as the minute hand moves around the clock. The idea of minutes past the hour and minutes to the next hour can be explored and linked to rounding numbers and also number bonds of multiples of 5 to 60.</p> <p>Children should explore how long certain activities take and also how many times certain things can be done in a given time period e.g. one minute.</p>
<b>Week 6</b> Assess and review	Assess and review week	It is useful at regular intervals for teachers to consider the learning that has taken place over a term (or half term), assess and review children's understanding of the learning and use this to inform where the children need to go next.