



## Mathematics Long Term Plan

Owl 2023-2024

### Autumn

	National Curriculum Objectives	Small Steps
<b>Number: Place Value (within 10)</b>  <b>5 weeks</b>	<ul style="list-style-type: none"> <li>Count to ten, forwards and backwards, beginning with 0 or 1, or from any given number.</li> <li>Count, read and write numbers to 10 in numerals and words.</li> <li>Given a number, identify one more or 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> </ul>	<ul style="list-style-type: none"> <li>Sort objects</li> <li>Count objects</li> <li>Count objects from a larger group</li> <li>Represent objects</li> <li>Recognise numbers as words</li> <li>Count on from any number</li> <li>1 more</li> <li>Count backwards within 10</li> <li>1 less</li> <li>Compare groups by matching</li> <li>Fewer, more, same</li> <li>Less than, greater than, equal to</li> <li>Compare numbers</li> </ul>

	National Curriculum Objectives	Small Steps
<b>Number: Place Value</b>  <b>4 weeks</b>	<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</li> </ul>	<ul style="list-style-type: none"> <li>Number to 20</li> <li>Count objects to 100 by making 10s</li> <li>Recognise tens and ones</li> <li>Use a place value chart</li> <li>Partition numbers to 100</li> <li>Write numbers to 100 in words</li> <li>Flexibly partition numbers to 100</li> <li>Write numbers to 100 in expanded form</li> <li>10s on the number line to 100</li> <li>10s and 1s on the number line to 100</li> <li>Estimate numbers on a number line</li> </ul>

		<ul style="list-style-type: none"> <li>Order objects and numbers</li> <li>The number line</li> </ul>
<p><b>Number: Addition and Subtraction (within 10)</b></p> <p><b>5 weeks</b></p>	<ul style="list-style-type: none"> <li>Represent and use number bonds and related subtraction facts within 10</li> <li>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</li> <li>Add and subtract one digit numbers to 10, including zero.</li> <li>Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.</li> </ul>	<ul style="list-style-type: none"> <li>Introduce parts and wholes</li> <li>Part-whole model</li> <li>Write number sentences</li> <li>Fact families – addition facts</li> <li>Number bonds within 10</li> <li>Systematic number bonds within 10</li> <li>Number bonds to 10</li> <li>Addition - add together</li> <li>Addition - add more</li> <li>Addition problems</li> <li>Find a part</li> <li>Subtraction – find a part</li> <li>Fact families – the eight facts</li> <li>Subtraction - take away/cross out (How many left?)</li> <li>Take away (How many left?)</li> <li>Subtraction on a number line</li> <li>Add or subtract 1 or 2</li> </ul>

	<p>problems.</p> <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> </ul>	<ul style="list-style-type: none"> <li>Compare objects</li> <li>Compare numbers</li> <li>Order objects and numbers</li> <li>Count in 2s, 5s and 10s</li> <li>Count in 3s</li> </ul>
<p><b>Number: Addition and Subtraction</b></p> <p><b>5 weeks</b></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,</li> </ul>	<ul style="list-style-type: none"> <li>Bonds to 10</li> <li>Fact families – addition and subtraction bonds within 20</li> <li>Related facts</li> <li>Bonds to 100 (tens)</li> <li>Add and subtract 1s</li> <li>Add by making 10</li> <li>Add three 1-digit numbers</li> <li>Add to the next 10</li> <li>Add across a 10</li> <li>Subtract across 10</li> <li>Subtract from a 10</li> <li>Subtract a 1-digit number from a 2-digit number (across a 10)</li> <li>10 more, 10 less</li> <li>Add and subtract 10s</li> <li>Add two 2-digit numbers (not across a ten)</li> <li>Add two 2-digit numbers (across a ten)</li> <li>Subtract two 2-digit numbers (not across a ten)</li> <li>Subtract two 2-digit numbers (across a ten)</li> <li>Mixed addition and subtraction</li> </ul>

<b>Geometry: Shape</b> <b>1 week</b>	<ul style="list-style-type: none"> <li>Recognise and name common 2-D shapes, including: (for example, rectangles (including squares), circles and triangles)</li> <li>Recognise and name common 3-D shapes, including: (for example, cuboids (including cubes), pyramids and spheres.)</li> </ul>	<ul style="list-style-type: none"> <li>Recognise and name 3-D shapes</li> <li>Sort 3-D shapes</li> <li>Recognise and name 2-D shapes</li> <li>Sort 2-D shapes</li> <li>Patterns with 2-D and 3-D shapes</li> </ul>
<b>Consolidation</b> <b>1 week</b>		

	<p>quantities and measures; applying their increasing knowledge of mental and written methods.</p> <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>	<ul style="list-style-type: none"> <li>Compare number sentences</li> <li>Missing number problems</li> </ul>
<b>Geometry: Properties of Shape</b> <b>3 weeks</b>	<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>Recognise 2-D and 3-D shapes</li> <li>Count sides on 2-D shapes</li> <li>Count vertices on 2-D shapes</li> <li>Draw 2-D shapes</li> <li>Lines of symmetry on shapes</li> <li>Use lines of symmetry to complete shapes</li> <li>Sort 2-D shapes</li> <li>Count faces on 3-D shapes</li> <li>Count edges on 3-D shapes</li> <li>Count vertices on 3-D shapes</li> <li>Sort 3-D shapes</li> <li>Make patterns with 2-D and 3-D shapes</li> </ul>

## Spring

	National Curriculum Objectives	Small Steps		National Curriculum Objectives	Small Steps
<p><b>Number: Place Value (within 20)</b></p> <p><b>3 weeks</b></p>	<ul style="list-style-type: none"> <li>Count to twenty, forwards and backwards, beginning with 0 or 1, from any given number.</li> <li>Count, read and write numbers to 20 in numerals and words.</li> <li>Given a number, identify one more or 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> </ul>	<ul style="list-style-type: none"> <li>Count within 20</li> <li>Understand 10</li> <li>Understand 11, 12 and 13</li> <li>Understand 14, 15 and 16</li> <li>Understand 17, 18 and 19</li> <li>Understand 20</li> <li>1 more and 1 less</li> <li>The number line to 20</li> <li>Use a number line to 20</li> <li>Estimate on a number line to 20</li> <li>Compare numbers to 20</li> <li>Order numbers to 20</li> </ul>	<p><b>Measurement: Money</b></p> <p><b>2 weeks</b></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> </ul>	<ul style="list-style-type: none"> <li>Count money – pence</li> <li>Count money – pounds (notes and coins)</li> <li>Count money – pounds and pence</li> <li>Choose notes and coins</li> <li>Make the same amount</li> <li>Compare amounts of money</li> <li>Calculate with money</li> <li>Make a pound</li> <li>Find change</li> <li>Two-step problems</li> </ul>
<p><b>Number: Addition and Subtraction (within 20)</b></p> <p><b>3 weeks</b></p>	<ul style="list-style-type: none"> <li>Represent and use number bonds and related subtraction facts within 20</li> <li>Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</li> <li>Add and subtract one-digit and two-digit numbers to 20, including zero.</li> </ul>	<ul style="list-style-type: none"> <li>Add by counting on within 20</li> <li>Add ones using number bonds</li> <li>Find and make number bonds to 20</li> <li>Doubles</li> <li>Near doubles</li> <li>Subtract ones using number bonds</li> <li>Subtraction – counting back</li> <li>Subtraction – finding</li> </ul>	<p><b>Number: Multiplication and Division</b></p> <p><b>5 weeks</b></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 (x),</li> </ul>	<ul style="list-style-type: none"> <li>Recognise equal groups</li> <li>Make equal groups</li> <li>Add equal groups</li> <li>Introduce the multiplication symbol</li> <li>Multiplication sentences</li> <li>Use arrays</li> <li>Make equal groups - grouping</li> <li>Make equal groups - sharing</li> <li>The 2 times-table</li> <li>Divide by 2</li> </ul>

	<ul style="list-style-type: none"> <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>	<p>the difference</p> <ul style="list-style-type: none"> <li>Related Facts</li> <li>Missing number problems</li> </ul>
<p><b>Number: Place Value (within 50)</b></p> <p><b>2 weeks</b></p>	<ul style="list-style-type: none"> <li>Count to 50 forwards and backwards, beginning with 0 or 1, or from any number.</li> <li>Count, read and write numbers to 50 in numerals.</li> <li>Given a number, identify one more or 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>Count in multiples of twos, fives and tens.</li> </ul>	<ul style="list-style-type: none"> <li>Count from 20 to 50</li> <li>20, 30, 40, 50</li> <li>Count by making groups of tens</li> <li>Groups of tens and ones</li> <li>Partition into tens and ones</li> <li>The number line to 50</li> <li>Estimate on a number line to 50</li> <li>1 more, 1 less</li> </ul>
<p><b>Measurement: Length and Height</b></p> <p><b>2 weeks</b></p>	<ul style="list-style-type: none"> <li>Measure and begin to record lengths and heights.</li> <li>Compare, describe and solve practical problems for: lengths and heights (for example,</li> </ul>	<ul style="list-style-type: none"> <li>Compare lengths and heights</li> <li>Measure length using objects</li> <li>Measure length in centimetres</li> </ul>

	<p>division (<math>\div</math>) and equals (=) sign.</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> <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>	<ul style="list-style-type: none"> <li>Doubling and halving</li> <li>Odd &amp; even numbers</li> <li>The 10 times-table</li> <li>Divide by 10</li> <li>The 5 times-table</li> <li>Divide by 5</li> <li>The 5 and 10 times-tables</li> </ul>
<p><b>Measurement: Length and Height</b></p> <p><b>2 weeks</b></p>	<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>);</li> </ul>	<ul style="list-style-type: none"> <li>Measure in centimetres</li> <li>Measure in metres</li> <li>Compare lengths and heights</li> <li>Order lengths and heights</li> <li>Four operations with</li> </ul>

	long/short, longer/shorter, tall/short, double/half)	
<b>Measurement: Mass and Volume</b> <b>2 weeks</b>	<ul style="list-style-type: none"> <li>• Measure and begin to record mass/weight, capacity and volume.</li> <li>• Compare, describe and solve practical problems for mass/weight: [for example, heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</li> </ul>	<ul style="list-style-type: none"> <li>• Heavier and lighter</li> <li>• Measure mass</li> <li>• Compare mass</li> <li>• Full and empty</li> <li>• Compare volume</li> <li>• Measure capacity</li> <li>• Compare capacity</li> </ul>

	capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels <ul style="list-style-type: none"> <li>• Compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =</li> </ul>	lengths and heights
<b>Measurement: Mass, Capacity and Temperature</b> <b>3 weeks</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> </ul>	<ul style="list-style-type: none"> <li>• Compare mass</li> <li>• Measure in grams</li> <li>• Measure in kilograms</li> <li>• Four operations with mass</li> <li>• Compare volume and capacity</li> <li>• Measure in millilitres</li> <li>• Measure in litres</li> <li>• Four operations with volume and capacity</li> <li>• Temperature</li> </ul>

## Summer

	National Curriculum Objectives	Small Steps
<b>Number: Multiplication and Division</b>  <b>3 weeks</b>	<ul style="list-style-type: none"> <li>Count in multiples of twos, fives and tens.</li> <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>Count in 2s</li> <li>Count in 10s</li> <li>Count in 5s</li> <li>Recognise equal groups</li> <li>Add equal groups</li> <li>Make arrays</li> <li>Make doubles</li> <li>Make equal groups - grouping</li> <li>Make equal groups - sharing</li> </ul>
<b>Number: Fractions</b>  <b>2 weeks</b>	<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 a half of an object or shape</li> <li>Find a half of an object or shape</li> <li>Recognise a half of a quantity</li> <li>Find a half of a quantity</li> <li>Recognise a quarter of an object or shape</li> <li>Find a quarter of an object or shape</li> <li>Recognise a quarter of a</li> </ul>

	National Curriculum Objectives	Small Steps
<b>Number: Fractions</b>  <b>3 weeks</b>	<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>Write simple fractions for example, <math>\frac{1}{2}</math> of <math>6 = 3</math> and recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math>.</li> </ul>	<ul style="list-style-type: none"> <li>Introduction to parts and wholes</li> <li>Equal and unequal parts</li> <li>Recognise a half</li> <li>Find a half</li> <li>Recognise a quarter</li> <li>Find a quarter</li> <li>Recognise a third</li> <li>Find a third</li> <li>Find the whole</li> <li>Unit fractions</li> <li>Non-unit fractions</li> <li>Recognise the equivalence of a half and two quarters</li> <li>Recognise three-quarters</li> <li>Find three-quarters</li> <li>Count in fractions up to a whole</li> </ul>
<b>Measurement: Time</b>  <b>3 weeks</b>	<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</li> </ul>	<ul style="list-style-type: none"> <li>O'clock and half past</li> <li>Quarter past and quarter to</li> <li>Tell time past the hour</li> <li>Tell time to the hour</li> <li>Tell the time to 5 minutes</li> <li>Minutes in an hour</li> <li>Hours in a day</li> </ul>

		<ul style="list-style-type: none"> <li>quantity</li> <li>Find a quarter of a quantity</li> </ul>
<b>Geometry: Position and Direction</b>  <b>1 week</b>	<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>Describe turns</li> <li>Describe position – left and right</li> <li>Describe position – forwards and backwards</li> <li>Describe position – above and below</li> <li>Ordinal numbers</li> </ul>
<b>Number: Place Value (within 100)</b>  <b>2 weeks</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.</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, most, least</li> </ul>	<ul style="list-style-type: none"> <li>Count from 50 to 100</li> <li>Tens to 100</li> <li>Partition into tens and ones</li> <li>The number line to 100</li> <li>1 more, 1 less</li> <li>Compare numbers with the same number of tens</li> <li>Compare any two numbers</li> </ul>
<b>Measurement: Money</b>  <b>1 week</b>	<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>Unitising</li> <li>Recognise coins</li> <li>Recognise notes</li> <li>Count in coins</li> </ul>
<b>Measurement: Time</b>	<ul style="list-style-type: none"> <li>Sequence events in chronological order</li> </ul>	<ul style="list-style-type: none"> <li>Before and after</li> <li>Days of the week</li> </ul>

	intervals of time.	
<b>Statistics</b>  <b>2 weeks</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> </ul>	<ul style="list-style-type: none"> <li>Make tally charts</li> <li>Tables</li> <li>Block diagrams</li> <li>Draw pictograms (1-1)</li> <li>Interpret pictograms (1-1)</li> <li>Draw pictograms (2, 5 and 10)</li> <li>Interpret pictograms (2, 5 and 10)</li> </ul>
<b>Position and Direction</b>  <b>2 weeks</b>	<ul style="list-style-type: none"> <li>Use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing</li> </ul>	<ul style="list-style-type: none"> <li>Language of position</li> <li>Describe movement</li> <li>Describe turns</li> <li>Describe movement and turns</li> <li>Shape patterns with</li> </ul>



<b>2 weeks</b>	<p>using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.</p> <ul style="list-style-type: none"> <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> <li>• Compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later]</li> <li>• Measure and begin to record time (hours, minutes, seconds)</li> </ul>	<ul style="list-style-type: none"> <li>• Months of the year</li> <li>• Hours, minutes and seconds</li> <li>• Tell the time to the hour</li> <li>• Tell the time to the half hour</li> </ul>
<b>Consolidation</b> <b>1 week</b>		

	<p>between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).</p> <ul style="list-style-type: none"> <li>• Order and arrange combinations of mathematical objects in patterns and sequences</li> </ul>	turns
<b>Consolidation</b> <b>2 weeks</b>		