

## Mathematics Scheme of Work – YEAR 3

Mathematics Strand	NC Requirement	Resources/Time	Success Criteria (Outcome)
<p><b>NUMBER</b> Number and place value</p>	<p><b>By the end of Year 3:</b></p> <ul style="list-style-type: none"> <li>• count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</li> <li>• recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>• compare and order numbers up to 1000</li> <li>• identify, represent and estimate numbers using different representations</li> <li>• read and write numbers up to 1000 in numerals and in words</li> <li>• solve number problems and practical problems involving these ideas.</li> </ul>	<ul style="list-style-type: none"> <li>• Number cards – 1000</li> <li>• Number lines 0-100,</li> <li>• Hundred squares.</li> <li>• Numicon</li> <li>• Place value cards (THTO)</li> </ul>	<ul style="list-style-type: none"> <li>• Children fluently read, count, order and write in numerals and words to 1000.</li> <li>• To secure counting in intervals of 4, 8, 50, and 100.</li> <li>• To identify 10/100 more and less.</li> <li>• To secure understanding of place value of 3 and 4 digit numbers.</li> <li>• To solve a range of problems using acquired skills.</li> </ul>
<p><b>Addition and subtraction</b></p>	<ul style="list-style-type: none"> <li>• add and subtract numbers mentally, including:               <ul style="list-style-type: none"> <li>- a three-digit number and ones</li> <li>- a three-digit number and tens</li> <li>- a three-digit number and hundreds</li> </ul> </li> <li>• add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</li> <li>• estimate the answer to a calculation and use inverse operations to check answers</li> <li>• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>	<ul style="list-style-type: none"> <li>• Number cards,</li> <li>• Number lines 0-100,</li> <li>• Hundred squares.</li> <li>• Numicon</li> </ul>	<ul style="list-style-type: none"> <li>• To solve addition and subtraction using mental methods up to 3 digits.</li> <li>• Add and subtract using the column method.</li> <li>• Estimate then solve addition and subtraction problems using the inverse to check answers.</li> <li>• Secure understanding of correct order of calculations.</li> </ul>

<b>Multiplication and division</b>	<ul style="list-style-type: none"> <li>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</li> <li>write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</li> <li>solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which n objects are connected to m objects.</li> </ul>	<ul style="list-style-type: none"> <li>Number cards,</li> <li>Number lines 0-100,</li> <li>Hundred squares.</li> <li>Numicon</li> <li>Multiplication Squares</li> </ul>	<ul style="list-style-type: none"> <li>Children use various mental and written methods to solve multiplication and division problems.</li> <li>To secure 3, 4 and 8 times tables.</li> <li>Multiply and divide to solve integer and correspondence problems.</li> </ul>
<b>Fractions</b>	<ul style="list-style-type: none"> <li>count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10</li> <li>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <li>recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</li> <li>recognise and show, using diagrams, equivalent fractions with small denominators</li> <li>add and subtract fractions with the same denominator within one whole (e.g. <math>5/7 + 1/7 = 6/7</math>)</li> <li>compare and order unit fractions, and fractions with the same denominators</li> <li>solve problems that involve all of the above.</li> </ul>	<ul style="list-style-type: none"> <li>Fraction fans/boards</li> </ul>	<ul style="list-style-type: none"> <li>To confidently identify, count and compare fractions including tenths.</li> <li>Secure understanding of equivalent fractions.</li> <li>To add and subtract fractions with the same denominator.</li> <li>To solve practical problems that include fractions.</li> </ul>
<b>MEASUREMENT</b>	<ul style="list-style-type: none"> <li>measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li> <li>measure the perimeter of simple 2-D shapes</li> </ul>	<ul style="list-style-type: none"> <li>Metre rulers</li> <li>Rulers</li> <li>Tape measures</li> <li>Scales</li> <li>Balance scales</li> </ul>	<ul style="list-style-type: none"> <li>To measure, compare and calculate length, weight and capacity using the correct units of measurement.</li> </ul>

	<ul style="list-style-type: none"> <li>• add and subtract amounts of money to give change, using both £ and p in practical contexts</li> <li>• tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</li> <li>• estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, hours and o'clock; use vocabulary such as a.m./p.m., morning, afternoon, noon and midnight</li> <li>• know the number of seconds in a minute and the number of days in each month, year and leap year</li> <li>• compare durations of events, for example to calculate the time taken by particular events or tasks.</li> </ul>	<ul style="list-style-type: none"> <li>• Measuring jugs/tubes</li> <li>• Numicon</li> <li>• 1p, 2p, 5p, 10p, 20p, 50p, £1, £2 coins</li> <li>• £5, £10 and £20 notes</li> <li>• Clocks (analogue &amp; digital)</li> <li>• Calendars/timetables</li> </ul>	<ul style="list-style-type: none"> <li>• To understand perimeter and using it to measure simple 2D shapes.</li> <li>• To calculate amounts and change using addition and subtraction including within practical problems.</li> <li>• Children to record and tell the time accurately to the nearest minute.</li> <li>• Secure sequencing vocabulary and time based problems.</li> <li>• To compare periods of time accurately.</li> </ul>
<b>GEOMETRY</b> <b>Properties of shapes</b>	<ul style="list-style-type: none"> <li>• draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</li> <li>• recognise that angles are a property of shape or a description of a turn</li> <li>• identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle</li> <li>• identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</li> </ul>	<ul style="list-style-type: none"> <li>• 2D/3D shapes</li> <li>• 3D nets</li> <li>• Protractors</li> <li>• Compasses</li> </ul>	<ul style="list-style-type: none"> <li>• To recognise and name 2D and 3D shapes fluently including within different orientations.</li> <li>• To identify properties of 2D and 3D shapes including specific lines.</li> <li>• To identify and compare angles within shapes and turns.</li> </ul>
<b>STATISTICS</b>	<ul style="list-style-type: none"> <li>• interpret and present data using bar charts, pictograms and tables</li> <li>• solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts and pictograms and tables.</li> </ul>	<ul style="list-style-type: none"> <li>• Laptops/iPads</li> <li>• Rulers</li> <li>• Colouring pencils</li> </ul>	<ul style="list-style-type: none"> <li>• To collect and interpret data in different ways including 2 step questions.</li> </ul>