

# BARNSTON PRIMARY SCHOOL MEDIUM TERM PLANNING SPRING



**SUBJECT:** Mathematics

**YEAR GROUP:** Year 3

**YEAR IN CYCLE:** Yearly

	NATIONAL CURRICULUM	ADDITIONAL SCHOOL CURRICULUM
<b>Spring</b>	<p><b>Number and Place Value</b></p> <ul style="list-style-type: none"> <li>Identify, represent and estimate numbers using different representations.</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> </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>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> <p><b>Multiplication and Division</b></p> <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> </ul> <p><b>Measurement</b></p> <ul style="list-style-type: none"> <li>Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g).</li> <li>Measure the perimeter of simple 2-D shapes.</li> <li>Tell and write the time from an analogue clock, including using Roman</li> </ul>	<p>They use larger numbers to at least 1000, applying partitioning related to place value using varied and increasingly complex problems, building on work in year 2 (for example, <math>146 = 100 + 40 + 6</math>, <math>146 = 130 + 16</math>).</p> <p>Using a variety of representations, including those related to measure, pupils continue to count in ones, tens and hundreds, so that they become fluent in the order and place value of numbers to 1000.</p> <p>Pupils practise solving varied addition and subtraction questions. For mental calculations with two-digit numbers, the answers could exceed 100.</p> <p>Pupils solve simple problems in contexts, deciding which of the four operations to use and why. These include measuring and scaling contexts, (for example, four times as high, eight times as long etc.) and correspondence problems in which m objects are connected to n objects (for example, 3 hats and 4 coats, how many different outfits?; 12 sweets shared equally between 4 children; 4 cakes shared equally between 8 children).</p> <p>Telling the time throughout the day: when does school start/end, when does lunch start/end.</p> <p>Pupils continue to become fluent in recognising the value of coins, by adding and subtracting amounts, including mixed units, and giving change using manageable</p>

	<p>numerals from I to XII, and 12-hour and 24-hour clocks.</p> <ul style="list-style-type: none"> <li>Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.</li> </ul> <p><b>Geometry</b></p> <ul style="list-style-type: none"> <li>Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</li> </ul> <p><b>Fractions</b></p> <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>Add and subtract fractions with the same denominator within one whole [for example, <math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math> ].</li> </ul> <p><b>Statistics</b></p> <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 [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.</li> </ul>	<p>amounts. They record £ and p separately. The decimal recording of money is introduced formally in year 4. Pupils use both analogue and digital 12-hour clocks and record their times. In this way they become fluent in and prepared for using digital 24-hour clocks in year 4.</p> <p>Pupils understand the relation between unit fractions as operators (fractions of), and division by integers. They continue to recognise fractions in the context of parts of a whole, numbers, measurements, a shape, and unit fractions as a division of a quantity. Pupils practise adding and subtracting fractions with the same denominator through a variety of increasingly complex problems to improve fluency.</p> <p>Pupils understand and use simple scales (for example, 2, 5, 10 units per cm) in pictograms and bar charts with increasing accuracy.</p>
	<b>ENTERPRISE</b>	<b>SOCIAL, SPIRITUAL, MORAL &amp; CULTURAL</b>
<b>SCHOOL DRIVERS</b>	<ul style="list-style-type: none"> <li>Mental Maths test every other week to improve mental capability to solve problems quickly.</li> <li>Opportunities for children to solve problems that arise through their learning.</li> <li>Remind children that mistakes are OK.</li> </ul>	<p>Children to become team players and allow collaborative sharing of ideas and resources. Children to take responsibility of their own learning. Children to work effectively on their own, but at times are able to work as part of a team. Children to become aware of their own desire to become more independent.</p>