



# Year 3 Maths Overview

## Bowerham Primary and Nursery School

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Place Value	Addition and Subtraction	Multiplication and Division B	Fractions A	Fractions B	Time
Addition and Subtraction	Multiplication and Division A	Length and Perimeter	Mass and Capacity	Money	Shape
				Time	Statistics

Topic	End of Year Expectation
Number and Place Value	<ul style="list-style-type: none"><li>Count from 0 in multiples of 4, 8, 50 and 100</li><li>Count up and down in tenths</li><li>Read and write numbers up to 1000 in numerals and in words</li><li>Read and write numbers with one decimal place</li><li>Identify, represent and estimate numbers using different representations (including the number line)</li><li>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li><li>Identify the value of each digit to one decimal place</li><li>Partition numbers in different ways (e.g. <math>146 = 100+40+6</math> and <math>146 = 130+16</math>)</li><li>Compare and order numbers up to 1000</li><li>Compare and order numbers with one decimal place</li><li>Find 1, 10 or 100 more or less than a given number</li><li>Round numbers to at least 1000 to the nearest 10 or 100</li><li>Find the effect of multiplying a one- or two-digit number by 10 and 100, identify the value of the digits in the answer</li><li>Describe and extend number sequences involving counting on or back in different steps</li><li>Read Roman numerals from I to XII</li><li>Solve number problems and concrete problems involving these ideas</li></ul>
Addition and Subtraction	<ul style="list-style-type: none"><li>Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</li><li>Select a mental strategy appropriate for the numbers involved in the calculation</li><li>Understand and use take away and difference for subtraction, deciding on the most efficient method for the numbers involved, irrespective of context</li><li>Recall/use addition / subtraction facts for 100 (multiples of 5 and 10)</li><li>Derive and use addition and subtraction facts for 100</li><li>Derive and use addition and subtraction facts for multiples of 100 totalling 1000</li></ul>



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	<ul style="list-style-type: none"><li>• Add and subtract numbers mentally, including: - a three-digit number and ones - a three-digit number and tens - a three-digit number and hundreds</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>
Multiplication and Division	<ul style="list-style-type: none"><li>• Choose an appropriate strategy to solve a calculation based upon the numbers involved (recall a known fact, calculate mentally, use a jotting, written method)</li><li>• Understand that division is the inverse of multiplication and vice versa</li><li>• Understand how multiplication and division statements can be represented using arrays</li><li>• Understand division as sharing and grouping and use each appropriately</li><li>• Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</li><li>• Derive and use doubles of all numbers to 100 and corresponding halves</li><li>• Derive and use doubles of all multiples of 50 to 500</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>• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</li><li>• Solve problems, including missing number problems, involving multiplication and division (and interpreting remainders), including positive integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects</li></ul>
Number – Fractions	<ul style="list-style-type: none"><li>• Show practically or pictorially that a fraction is one whole number divided by another (e.g. <math>3/4</math> can be interpreted as <math>3 \div 4</math>)</li><li>• Understand that finding a fraction of an amount relates to division</li><li>• Recognise that tenths arise from dividing objects 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 nonunit 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 [for example, <math>5/7 + 1/7 = 6/7</math>]</li><li>• Compare and order unit fractions, and fractions with the same denominators (including on a number line)</li><li>• Count on and back in steps of <math>1/2</math>, <math>1/4</math> and <math>3/4</math></li><li>• Solve problems that involve all of the above</li></ul>
Geometry – Properties of Shapes	<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 angles as 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>
Geometry – Position and Direction	<ul style="list-style-type: none"><li>• Describe positions on a square grid labelled with letters and numbers</li></ul>



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Statistics	<ul style="list-style-type: none"><li>Use sorting diagrams to compare and sort objects, numbers and common 2-D and 3-D shapes</li><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>
Measurement	<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>Continue to estimate and measure temperature to the nearest degree (<math>^{\circ}\text{C}</math>) using thermometers</li><li>Understand perimeter is a measure of distance around the boundary of a shape</li><li>Measure the perimeter of simple 2-D shapes</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/read time with increasing accuracy to the nearest minute</li><li>Record/compare time in terms of seconds, minutes, hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon, 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><li>Continue to recognise and use the symbols for pounds (£) and pence (p) and understand that the decimal point separates pounds/pence</li><li>Recognise that ten 10p coins equal £1 and that each coin is <b>1/10 of £1</b></li><li>Add and subtract amounts of money to give change, using both £ and p in practical contexts</li><li>Solve problems involving money and measures and simple problems involving passage of time</li></ul>