

# Spring Vale Primary School — Mathematics Medium Term Plan

#### Year 2 - Autumn Term

Unit:	National Curriculum:	Small Steps:
Number: Place Value	<ul> <li>Pupils should be taught to: <ul> <li>count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward</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 and = signs</li> <li>read and write numbers to at least 100 in numerals and in words</li> <li>use place value and number facts to solve problems.</li> </ul> </li> </ul>	<ul> <li>Numbers 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 Is on the number line to 100</li> <li>Estimate numbers on a number line</li> <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>
Number: Addition and Subtraction	Pupils should be taught to:  • solve problems with addition and subtraction:  • using concrete objects and pictorial representations, including those involving numbers, quantities and measures  • applying their increasing knowledge of mental and written methods	<ul> <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 Is</li> <li>Add by making 10</li> </ul>

	<ul> <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:         <ul> <li>a two-digit number and ones</li> <li>a two-digit number and tens</li> <li>two two-digit numbers</li> <li>adding three one-digit numbers</li> </ul> </li> <li>show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.</li> <li>recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</li> </ul>	<ul> <li>Add three I-digit numbers</li> <li>Add to the next IO</li> <li>Add across a IO</li> <li>Subtract across IO</li> <li>Subtract from a IO</li> <li>Subtract a I-digit number from a 2-digit number (across a IO)</li> <li>IO more, IO less</li> <li>Add and subtract IOs</li> <li>Add two 2-digit numbers (not across a IO)</li> <li>Add two 2-digit numbers (across a IO)</li> <li>Subtract two 2-digit numbers (not across a IO)</li> <li>Subtract two 2-digit numbers (across a IO)</li> <li>Mixed addition and subtraction</li> <li>Compare number sentences</li> <li>Missing number problems</li> </ul>
Geometry: Shape	<ul> <li>Pupils should be taught to:</li> <li>identify and describe the properties of 2-D shapes, including the number of sides and 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> <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>



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## Year 2 — Spring Term

Unit:	National Curriculum:	Small Steps:
Measurement: Money	Pupils should be taught to:  • recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value  • find different combinations of coins that equal the same amounts of money  • solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	<ul> <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>
Number: Multiplication and Division	Pupils should be taught to:  • recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers  • calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs  • show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot  • solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	<ul> <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> <li>Doubling and halving</li> <li>Odd and even numbers</li> </ul>

		<ul> <li>The IO times-table</li> <li>Divide by IO</li> <li>The 5 times-table</li> <li>Divide by 5</li> <li>The 5 and IO times-table</li> </ul>
Measurement: Length and height	Pupils should be taught to:  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  compare and order lengths, mass, volume/capacity and record the results using >, < and =	<ul> <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 lengths and heights</li> </ul>
Number: Fractions	Pupils should be taught to:  • recognise, find, name and write fractions I /3, I /4, 2 /4 and 3 /4 of a length, shape, set of objects or quantity  • write simple fractions e.g. I /2 of 6 = 3 and recognise the equivalence of 2 /4 and I /2.	<ul> <li>Introduction to parts and whole</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>



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#### Year 2 - Summer Term

Unit:	National Curriculum:	Small Steps:
Measurement: Mass, capacity and temperature	Pupils should be taught to:  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  compare and order lengths, mass, volume/capacity and record the results using >, < and =	<ul> <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>
Measurement: Time	Pupils should be taught to:  compare and sequence intervals of time  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.	<ul> <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>
Statistics	Pupils should be taught to:	<ul> <li>Make tally charts</li> <li>Tables</li> <li>Block diagrams</li> <li>Draw pictograms (I-I)</li> <li>Interpret pictograms (I-I)</li> <li>Draw pictograms (2, 5 and 10)</li> </ul>

		• Interpret pictograms (2, 5 and 10)
Geometry: Position and direction	Pupils should be taught to:	<ul> <li>Language of position</li> <li>Describe movement</li> <li>Describe turns</li> <li>Describe movement and turns</li> <li>Shape patterns with turns</li> </ul>