



# Coleridge Maths

National Curriculum 2014

## Medium term planning document

Key Stages 1&2. Years 1-6



## Year 1 Medium Term Planning Autumn 1

Week	Date	Topic	Curriculum Objective
		Counting	<ul style="list-style-type: none"><li>● To count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</li><li>● To 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>
		Addition and subtraction to 5 or more (part 1)	<ul style="list-style-type: none"><li>● To read and write numbers from 1 to 20 in numerals and words.</li><li>● When given a number, identify one more and one less.</li><li>● To read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</li><li>● To add and subtract one-digit and two-digit numbers to 20, including zero.</li></ul>
		Addition and subtraction to 5 or more (part 2)	<ul style="list-style-type: none"><li>● To add and subtract one-digit and two-digit numbers to 20, including zero.</li><li>● To solve simple one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</li></ul>
		Addition totals to 10	<ul style="list-style-type: none"><li>● To read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</li><li>● To represent and use number bonds and related subtraction facts within 20.</li><li>● To add and subtract one-digit and two-digit numbers to 20 (<math>9 + 9</math>, <math>18 - 9</math>), including zero.</li></ul>
		Properties of shape	<ul style="list-style-type: none"><li>● To recognise and name common 2D and 3D shapes, including:<ul style="list-style-type: none"><li>● 2D shapes (rectangles (including squares), circles and triangles)</li><li>● 3D shapes (cuboids (including cubes), pyramids and spheres).</li></ul></li></ul>
		Addition and subtraction to 10	<ul style="list-style-type: none"><li>● To represent and use number bonds and related subtraction facts within 20.</li><li>● To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = \quad - 9</math></li></ul>
		<input type="checkbox"/>	



## Year 1 Medium Term Planning Autumn 2

Week	Date	Topic	Curriculum Objective
		Counting and number order	<ul style="list-style-type: none"><li>• To count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</li><li>• To count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tens.</li><li>• To 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>• To read and write numbers from 1 to 20 in numerals and words.</li></ul>
		Place value and comparing quantities and numbers	<ul style="list-style-type: none"><li>• When given a number, identify one more and one less.</li><li>• To 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>• To read and write numbers from 1 to 20 in numerals and words.</li></ul>
		Developing mental strategies for addition	<ul style="list-style-type: none"><li>• To read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs.</li><li>• To represent and use number bonds and related subtraction facts within 20.</li><li>• To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</li></ul>
		Subtraction as difference	<ul style="list-style-type: none"><li>• To read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs.</li><li>• To represent and use number bonds and related subtraction facts within 20.</li><li>• To add and subtract one-digit and two-digit numbers to 20, including zero.</li><li>• To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</li></ul>
		Measures	<ul style="list-style-type: none"><li>• To compare, describe and solve practical problems for:<ul style="list-style-type: none"><li>• lengths and heights (long/short, longer/shorter, tall/short, double/half)</li><li>• mass or weight (heavy/light, heavier than, lighter than)</li><li>• capacity/volume (full/empty, more than, less than, quarter)</li><li>• time (quicker, slower, earlier, later).</li></ul></li><li>• To recognise and know the value of different denominations of coins and notes.</li></ul>
		Addition and subtraction using money	<ul style="list-style-type: none"><li>• To read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs.</li><li>• To represent and use number bonds and related subtraction facts within 20.</li><li>• To add and subtract one-digit and two-digit numbers to 20, including zero.</li><li>• To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</li></ul>



## Year 1 Medium Term Planning Spring 1

Date	Week	Topic	Curriculum Objective
		Counting, reading and writing number patterns	<ul style="list-style-type: none"><li>● To count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</li><li>● To count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tens.</li><li>● When given a number, identify one more and one less.</li><li>● To read and write numbers from 1 to 20 in numerals and words.</li></ul>
		Doubles and near doubles	<ul style="list-style-type: none"><li>● To represent and use number bonds and related subtraction facts within 20.</li><li>● To add and subtract one-digit and two-digit numbers to 20, including zero.</li><li>● To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</li></ul>
		Grouping and sharing	<ul style="list-style-type: none"><li>● To solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</li></ul>
		Fractions	<ul style="list-style-type: none"><li>● To recognise, find and name a half as one of two equal parts of an object, shape or quantity.</li></ul>
		Measures, including time	<ul style="list-style-type: none"><li>● To sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.</li><li>● To 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>● To measure and begin to record the following:<ul style="list-style-type: none"><li>● lengths and heights</li><li>● mass/weight</li><li>● capacity and volume</li><li>● time (hours, minutes, seconds).</li></ul></li></ul>
		Addition and subtraction to 15	<ul style="list-style-type: none"><li>● To add and subtract one-digit and two-digit numbers to 20, including zero.</li><li>● To solve one-step problems that involve addition and subtraction, using objects and pictorial representations, and missing number problems.</li></ul>



## Year 1 Medium Term Planning Spring 2

Week	Date	Topic	Curriculum Objective
		Counting and place value	<ul style="list-style-type: none"><li>● To count, read and write numbers to 100 in numerals, count in different multiples including ones, twos, fives and tens.</li><li>● When given a number, identify one more and one less.</li><li>● To 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>
		Addition and subtraction beyond totals of 10	<ul style="list-style-type: none"><li>● To add and subtract one-digit and two-digit numbers to 20, including zero.</li><li>● To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</li></ul>
		Grouping and sharing	<ul style="list-style-type: none"><li>● To solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</li></ul>
		Shape, position and movement	<ul style="list-style-type: none"><li>● To recognise and name common 2D and 3D shapes, including:<ul style="list-style-type: none"><li>● 2D shapes (rectangles (including squares), circles and triangles)</li><li>● 3D shapes (cuboids (including cubes), pyramids and spheres).</li></ul></li><li>● To describe position, directions and movements, including half, quarter and three-quarter turns.</li></ul>
		Measuring and time	<ul style="list-style-type: none"><li>● To compare, describe and solve practical problems for:<ul style="list-style-type: none"><li>● lengths and heights (long/short, longer/shorter, tall/short, double/half)</li><li>● mass or weight (heavy/light, heavier than, lighter than)</li><li>● capacity/volume (full/empty, more than, less than, quarter)</li><li>● time (quicker, slower, earlier, later).</li></ul></li><li>● To measure and begin to record the following:<ul style="list-style-type: none"><li>● lengths and heights</li><li>● mass/weight</li><li>● capacity and volume</li><li>● time (hours, minutes, seconds).</li></ul></li><li>● To sequence events in chronological order using language such as: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening.</li></ul>
		Addition and subtraction totals to 10	<ul style="list-style-type: none"><li>● To add and subtract one-digit and two-digit numbers to 20, including zero.</li><li>● To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</li></ul>



## Year 1 Medium Term Planning Summer 1

Week	Date	Topic	Curriculum Objective
		Addition to totals to 10	<ul style="list-style-type: none"><li>• To count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</li><li>• To count, read and write numbers to 100 in numerals, count in multiples of twos, fives and tens.</li><li>• To 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>• To read and write numbers from 1 to 20 in numerals and words.</li></ul>
		Addition and subtraction to 20	<ul style="list-style-type: none"><li>• To represent and use number bonds and related subtraction facts within 20.</li><li>• To add and subtract one-digit and two-digit numbers to 20, including zero.</li><li>• To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</li></ul>
		Fractions	<ul style="list-style-type: none"><li>• To recognise, find and name a half as one of two equal parts of an object, shape or quantity.</li><li>• To recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</li></ul>
		Multiplication and division	<ul style="list-style-type: none"><li>• To solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</li></ul>
		Measuring	<ul style="list-style-type: none"><li>• To measure and begin to record the following:<ul style="list-style-type: none"><li>• lengths and heights</li><li>• mass/weight</li><li>• capacity and volume</li><li>• time (hours, minutes, seconds).</li></ul></li></ul>
		Moving and turning	<ul style="list-style-type: none"><li>• To describe position, directions and movements, including half, quarter and three-quarter turns.</li></ul>



## Year 1 Medium Term Planning Summer 2

Week	Date	Topic	Curriculum Objective
		Number and place value	<ul style="list-style-type: none"><li>• When given a number, identify one more and one less.</li><li>• To 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>
		Addition and subtraction	<ul style="list-style-type: none"><li>• To add and subtract one-digit and two-digit numbers to 20, including zero.</li><li>• To solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.</li></ul>
		Fractions	<ul style="list-style-type: none"><li>• To recognise, find and name a half as one of two equal parts of an object, shape or quantity.</li><li>• To recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.</li></ul>
		Multiplication and division	<ul style="list-style-type: none"><li>• To solve one-step problems involving multiplication and division, calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.</li></ul>
		Time and using standard units	<ul style="list-style-type: none"><li>• To measure and begin to record the following:<ul style="list-style-type: none"><li>• lengths and heights</li><li>• mass/weight</li><li>• capacity and volume</li><li>• time (hours, minutes, seconds).</li></ul></li><li>• To recognise and use language relating to dates, including days of the week, weeks, months and years.</li><li>• To tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</li></ul>
		Addition to totals to 10	<ul style="list-style-type: none"><li>• To order and arrange combinations of objects and shapes in patterns.</li><li>• To recognise and name common 2D and 3D shapes, including:<ul style="list-style-type: none"><li>• 2D shapes (rectangles (including squares), circles and triangles)</li><li>• 3D shapes (cuboids (including cubes), pyramids and spheres).</li></ul></li></ul>



# Year 2 Medium Term Planning Autumn 1

Date	Week	Topic	Curriculum Objective
		Number and place value: counting, reading and writing 2-digit numbers, place value	<ul style="list-style-type: none"> <li>To count in steps of 2, 3, and 5 from 0, and count in tens from any number, forward or backward.</li> <li>To recognise the place value of each digit in a two-digit number (tens, ones).</li> <li>To identify, represent and estimate numbers using different representations, including the number line.</li> <li>To compare and order numbers from 0 up to 100; use <math>&lt;</math>, <math>&gt;</math> and <math>=</math> signs.</li> <li>To read and write numbers to at least 100 in numerals and in words.</li> <li>To use place value and number facts to solve problems.</li> </ul>
		Addition: concrete, visual and number facts	<ul style="list-style-type: none"> <li>To solve problems with addition and subtraction:               <ul style="list-style-type: none"> <li>Using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>Applying their increasing knowledge of mental and written methods.</li> </ul> </li> <li>To recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.</li> <li>To add and subtract 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>To show that addition can be done in any order (commutative) and subtraction cannot.</li> <li>To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</li> </ul>
		Subtraction: concrete, visual and number facts	<ul style="list-style-type: none"> <li>To solve problems with addition and subtraction:               <ul style="list-style-type: none"> <li>Using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>Applying their increasing knowledge of mental and written methods.</li> </ul> </li> <li>To recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.</li> <li>To add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a 2-digit number and tens; two two-digit numbers; adding three one-digit numbers.</li> <li>To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</li> </ul>
		Multiplication and division: repeated addition and repeated subtraction	<ul style="list-style-type: none"> <li>To recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers.</li> <li>To calculate mathematical statements for multiplication and division within the multiplication tables and write them using multiplication, division and equals signs.</li> <li>To recognise and use the inverse relationship between multiplication and division in calculations.</li> <li>To show that multiplication of two numbers can be done in any order (commutative) and division for one number by another cannot.</li> <li>To solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.</li> </ul>
		Geometry: properties of 3D and 2D shape	<ul style="list-style-type: none"> <li>To identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical line.</li> <li>To identify and describe the properties of 3D shapes including the number of edges, vertices and faces.</li> <li>To identify 2D shapes on the surface of 3D shapes, for example circle on a cylinder and a triangle on a pyramid.</li> <li>To compare and sort common 2D and 3D shapes and everyday objects.</li> </ul>
		Measures: length, mass, capacity, money	<ul style="list-style-type: none"> <li>To choose and use appropriate standard units to estimate and measure length/height in any direction; mass; temperature; volume and capacity to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels.</li> <li>To compare and order lengths, mass, volume/capacity and record the results using <math>&gt;</math>, <math>&lt;</math> and <math>=</math>.</li> <li>To recognise and use the symbols for pounds and pence; combine amounts to make a particular value</li> <li>To find different combinations of coins that equal the same amounts of money</li> <li>To solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</li> </ul>





## Year 2 Medium Term Planning Autumn 2

Date	Week	Topic	Curriculum Objective
		Number and place value: comparing, ordering two-digit numbers and knowing their place value	<ul style="list-style-type: none"> <li>● To count in steps of 2, 3, and 5 from 0, and count in tens from any number, forward or backward.</li> <li>● To recognise the place value of each digit in a two-digit number (tens, ones).</li> <li>● To identify, represent and estimate numbers using different representations, including the number line.</li> <li>● To compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs.</li> <li>● To read and write numbers to at least 100 in numerals and in words.</li> <li>● To use place value and number facts to solve problems.</li> </ul>
		Addition and subtraction: using recall of addition and subtraction facts and mental calculation strategies	<ul style="list-style-type: none"> <li>● To solve problems with addition and subtraction:               <ul style="list-style-type: none"> <li>● Using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>● Applying their increasing knowledge of mental and written methods.</li> </ul> </li> <li>● To add and subtract 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>● To show that addition can be done in any order (commutative) and subtraction cannot.</li> <li>● To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</li> </ul>
		Multiplication and division: repeated addition and subtraction, arrays, grouping and using times tables facts	<ul style="list-style-type: none"> <li>● To recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers.</li> <li>● To calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs.</li> <li>● To recognise and use the inverse relationship between multiplication and division in calculations.</li> <li>● To show that multiplication of two numbers can be done in any order (commutative) and division for one number by another cannot.</li> <li>● To solve one-step problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.</li> </ul>
		Fractions: finding fractions of quantities, shapes and sets of objects	<ul style="list-style-type: none"> <li>● To 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>.</li> <li>● To write simple fractions for example, <math>\frac{1}{2}</math> of 6 = 3 and recognise the equivalence of two quarters and one half.</li> </ul>
		Geometry: position, direction, motion  Measures: time	<ul style="list-style-type: none"> <li>● To order and arrange combinations of mathematical objects in patterns.</li> <li>● To use mathematical vocabulary to describe position, direction and movement, including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three quarter turns (clockwise and anti-clockwise) and movement in a straight line.</li> <li>● To compare and sequence intervals of time.</li> <li>● To 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> </ul>
		Data: solving problems that involve collecting data in tallies, tables and pictograms	<ul style="list-style-type: none"> <li>● To interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</li> <li>● To ask and answer simple questions by counting the number of object in each category and sorting the categories by quantity.</li> <li>● To ask and answer questions about totalling and compare categorical data.</li> </ul>



# Year 2 Medium Term Planning Spring 1

Date	Week	Topic	Curriculum Objective
		Number and place value: estimating, counting and comparing quantities	<ul style="list-style-type: none"> <li>To count in steps of 2, 3, and 5 from 0, and count in tens from any number, forward or backward.</li> <li>To recognise the place value of each digit in a 2-digit number (tens, ones).</li> <li>To identify, represent and estimate numbers using different representations, including the number line.</li> <li>To compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs.</li> <li>To read and write numbers to at least 100 in numerals and in words.</li> <li>To use place value and number facts to solve problems.</li> </ul>
		Addition and subtraction: using recall of addition and subtraction facts and mental calculation strategies	<ul style="list-style-type: none"> <li>To solve problems with addition and subtraction:               <ul style="list-style-type: none"> <li>Using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>Applying their increasing knowledge of mental and written methods.</li> </ul> </li> <li>To recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.</li> <li>To add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three one-digit numbers.</li> <li>To show that addition can be done in any order (commutative) and subtraction cannot.</li> <li>To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</li> </ul>
		Addition and subtraction: using partitioning and counting on strategies	<ul style="list-style-type: none"> <li>To solve problems with addition and subtraction:               <ul style="list-style-type: none"> <li>Using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>Applying their increasing knowledge of mental and written methods.</li> </ul> </li> <li>To add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three one-digit numbers.</li> <li>To show that addition can be done in any order (commutative) and subtraction cannot.</li> <li>To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</li> </ul>
		Multiplication and division: repeated addition and subtraction, arrays, grouping and using times tables facts	<ul style="list-style-type: none"> <li>To recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers.</li> <li>To calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs.</li> <li>To recognise and use the inverse relationship between multiplication and division in calculations.</li> <li>To show that multiplication of two numbers can be done in any order (commutative) and division for one number by another cannot.</li> <li>To solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.</li> </ul>
		Geometry: properties of 3D and 2D shape	<ul style="list-style-type: none"> <li>To identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical line.</li> <li>To identify and describe the properties of 3D shapes including the number of edges, vertices and faces.</li> <li>To identify 2D shapes on the surface of 3D shapes, for example circle on a cylinder and a triangle on a pyramid.</li> </ul>
		Measures: length, mass, capacity and money	<ul style="list-style-type: none"> <li>To choose and use appropriate standard units to estimate and measure length/ height in any direction (m/cm/mm); mass (kg/g); temperature (°C); volume and capacity (litres/ml) to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels.</li> <li>To compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =.</li> </ul>



## Year 2 Medium Term Planning Spring 2

Date	Week	Topic	Curriculum Objective
		Number and place value: estimating, counting, comparing and ordering quantities	<ul style="list-style-type: none"> <li>● To count in steps of 2, 3, and 5 from 0, and count in tens from any number, forward or backward.</li> <li>● To recognise the place value of each digit in a 2-digit number (tens, ones).</li> <li>● To identify, represent and estimate numbers using different representations, including the number line.</li> <li>● To compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs.</li> <li>● To read and write numbers to at least 100 in numerals and in words.</li> <li>● To use place value and number facts to solve problems.</li> </ul>
		Addition and subtraction: using mental calculation strategies	<ul style="list-style-type: none"> <li>● To solve problems with addition and subtraction:               <ul style="list-style-type: none"> <li>● Using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>● Applying their increasing knowledge of mental and written methods.</li> </ul> </li> <li>● To recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.</li> <li>● To add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three one-digit numbers. To show that addition can be done in any order (commutative) and subtraction cannot.</li> <li>● To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</li> </ul>
		Multiplication and division: repeated addition and subtraction, arrays, grouping and using times tables facts	<ul style="list-style-type: none"> <li>● To recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers.</li> <li>● To calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs.</li> <li>● To recognise and use the inverse relationship between multiplication and division in calculations.</li> <li>● To show that multiplication of two numbers can be done in any order (commutative) and division for one number by another cannot.</li> <li>● To solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.</li> </ul>
		Fractions: finding fractions of quantities, shapes and sets of objects	<ul style="list-style-type: none"> <li>● To 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>.</li> <li>● To write simple fractions for example, <math>\frac{1}{2}</math> of 6 = 3 and recognise the equivalence of two quarters and one half.</li> </ul>
		Geometry: position and direction  Measures: time	<ul style="list-style-type: none"> <li>● To use mathematical vocabulary to describe position, direction and movement, including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three quarter turns (clockwise and anti-clockwise) and movement in a straight line.</li> <li>● To 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> </ul>
		Statistics: solving problems that involve collecting data in tallies, tables and pictograms	<ul style="list-style-type: none"> <li>● To interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</li> <li>● To ask and answer simple questions by counting the number of object in each category and sorting the categories by quantity.</li> <li>● To ask and answer questions about totalling and compare categorical data.</li> </ul>



## Year 2 Medium Term Planning Summer 1

Date	Week	Topic	Curriculum Objective
		Number and place value: estimating, counting, comparing and ordering quantities	<ul style="list-style-type: none"> <li>● To recognise the place value of each digit in a 2-digit number (tens, ones).</li> <li>● To identify, represent and estimate numbers using different representations, including the number line.</li> <li>● To compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs.</li> <li>● To read and write numbers to at least 100 in numerals and in words.</li> </ul>
		Addition and subtraction: using mental calculation strategies	<ul style="list-style-type: none"> <li>● To solve problems with addition and subtraction:               <ul style="list-style-type: none"> <li>● Using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>● Applying their increasing knowledge of mental and written methods.</li> </ul> </li> <li>● To add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three one-digit numbers.</li> <li>● To show that addition can be done in any order (commutative) and subtraction cannot.</li> <li>● To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</li> </ul>
		Multiplication and division: repeated addition and subtraction, arrays, grouping and using times tables facts	<ul style="list-style-type: none"> <li>● To recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers.</li> <li>● To calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs.</li> <li>● To recognise and use the inverse relationship between multiplication and division in calculations.</li> <li>● To solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.</li> </ul>
		Fractions: finding fractions of quantities, shapes and sets of objects	<ul style="list-style-type: none"> <li>● To 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>.</li> <li>● To write simple fractions for example, <math>\frac{1}{2}</math> of 6 = 3 and recognise the equivalence of two quarters and one half.</li> </ul>
		Geometry: properties of 3D and 2D shape	<ul style="list-style-type: none"> <li>● To identify and describe the properties of 2D and 3D shapes, including the number of sides, symmetry in a vertical line, edges, vertices, and faces.</li> <li>● To identify 2D shapes on the surface of 3D shapes, for example circle on a cylinder and a triangle on a pyramid.</li> <li>● To compare and sort common 2D and 3D shapes and everyday objects.</li> <li>● To solve one-step problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.</li> </ul>
		Measures: length, mass (weight), capacity and money	<ul style="list-style-type: none"> <li>● To choose and use appropriate standard units to estimate and measure length/ height in any direction; mass; temperature; volume and capacity to the nearest appropriate unit using rulers, scales, thermometers and measuring vessels.</li> <li>● To compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =.</li> <li>● To recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.</li> <li>● To find different combinations of coins to equal the same amounts of money</li> <li>● To solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.</li> </ul>



## Year 2 Medium Term Planning Summer 2

Date	Week	Topic	Curriculum Objective
		Number and place value: estimating, counting, comparing and ordering quantities	<ul style="list-style-type: none"> <li>To recognise the place value of each digit in a 2-digit number (tens, ones).</li> <li>To identify, represent and estimate numbers using different representations, including the number line.</li> <li>To compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs.</li> <li>To read and write numbers to at least 100 in numerals and in words.</li> <li>To use place value and number facts to solve problems.</li> </ul>
		Addition and subtraction: using partitioning and sequencing	<ul style="list-style-type: none"> <li>To solve problems with addition and subtraction:               <ul style="list-style-type: none"> <li>Using concrete objects and pictorial representations, including those involving numbers, quantities and measures</li> <li>Applying their increasing knowledge of mental and written methods.</li> </ul> </li> <li>To add and subtract using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones; a 2-digit number and tens; two 2-digit numbers; adding three one-digit numbers.</li> <li>To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.</li> </ul>
		Fractions: finding fractions of quantities, shapes and sets of objects	<ul style="list-style-type: none"> <li>To recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers.</li> <li>To calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (<math>\times</math>), division (<math>\div</math>) and equals (=) signs.</li> <li>To recognise and use the inverse relationship between multiplication and division in calculations.</li> <li>To solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts.</li> </ul>
		Finding fractions of quantities, shapes and sets of objects	<ul style="list-style-type: none"> <li>To recognise, find, name and write fractions <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math></li> <li>To write simple fractions for example, <math>\frac{1}{2}</math> of 6 = 3 and recognise the equivalence of two quarters and one half.</li> </ul>
		Geometry: position and direction  Measures: time	<ul style="list-style-type: none"> <li>To order and arrange combinations of mathematical objects in patterns.</li> <li>To use mathematical vocabulary to describe position, direction and movement, including distinguishing between rotation as a turn and in terms of right angles for quarter, half and three quarter turns (clockwise and anti-clockwise) and movement in a straight line.</li> <li>To compare and sequence intervals of time.</li> <li>To 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> </ul>
		Solving problems by gathering data and representing in tallies, tables, pictograms and block diagrams	<ul style="list-style-type: none"> <li>To interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</li> <li>To ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</li> <li>To ask and answer questions about totalling and compare categorical data.</li> </ul>



## Year 3 Medium Term Planning Autumn 1

Date	Week	Topic	Curriculum Objective
		Reading, writing and ordering two- and three-digit numbers	<ul style="list-style-type: none"><li>• To recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</li><li>• To compare and order numbers up to 1000.</li><li>• To read and write numbers up to 1000 in numerals and in words.</li></ul>
		Counting and estimating	<ul style="list-style-type: none"><li>• To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.</li><li>• To identify, represent and estimate numbers using different representations.</li></ul>
		Number facts to 20 and to 100  Addition and Subtraction of 1 and 2-digit numbers	<ul style="list-style-type: none"><li>• To 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>• To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li></ul>
		Multiplication and division facts	<ul style="list-style-type: none"><li>• To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>• To 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>• To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
		Measuring using mm, cm and metres	<ul style="list-style-type: none"><li>• To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</li><li>• To measure the perimeter of simple 2D shapes.</li></ul>
		Recognising, describing and making 2D and 3D shapes	<ul style="list-style-type: none"><li>• To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy.</li><li>• To identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.</li></ul>



## Year 3 Medium Term Planning Autumn 2

Date	Week	Topic	Curriculum Objective
		Counting and estimating	<ul style="list-style-type: none"> <li>● To 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>● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>
		Addition and subtraction of two- and three-digit numbers, using a number line and columns	<ul style="list-style-type: none"> <li>● To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.</li> <li>● To estimate the answer to a calculation and use inverse operations to check answers.</li> <li>● To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>
		Multiplication and division: doubling, halving and $TU \times U$	<ul style="list-style-type: none"> <li>● To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>● To 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>● To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
		Fractions: representing, comparing and ordering unit fractions of shapes and numbers	<ul style="list-style-type: none"> <li>● To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</li> <li>● To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</li> <li>● To compare and order unit fractions, and fractions with the same denominators.</li> <li>● To solve problems that involve all of the above.</li> </ul>
		Read and write time to 5 minute intervals	<ul style="list-style-type: none"> <li>● To 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>● To 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 am/pm, morning, afternoon, noon and midnight.</li> <li>● To know the number of seconds in a minute and the number of days in each month, year and leap year.</li> <li>● To compare durations of events, for example to calculate the time taken by particular events or tasks.</li> </ul>
		Read, present and interpret pictograms and tables	<ul style="list-style-type: none"> <li>● To interpret and present data using bar charts, pictograms and tables</li> <li>● To 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>



## Year 3 Medium Term Planning Spring 1

Date	Week	Topic	Curriculum Objective
		Number, place value and rounding	<ul style="list-style-type: none"><li>• To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.</li><li>• To recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</li><li>• To compare and order numbers up to 1000.</li><li>• To identify, represent and estimate numbers using different representations.</li><li>• To read and write numbers up to 1000 in numerals and in words.</li><li>• To solve number problems and practical problems involving these ideas.</li></ul>
		Use partitioning to add and subtract two-digit numbers	<ul style="list-style-type: none"><li>• To 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>• To estimate the answer to a calculation and use inverse operations to check answers.</li><li>• To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li></ul>
		Multiplication and division: multiplying one-digit numbers by multiples of 10	<ul style="list-style-type: none"><li>• To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>• To 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>• To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
		Multiplication and division: practical and informal written methods	<ul style="list-style-type: none"><li>• To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li><li>• To 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>• To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
		Measures: adding and subtracting money	<ul style="list-style-type: none"><li>• To add and subtract amounts of money to give change, using both £ and p in practical contexts.</li></ul>
		Recognising and drawing right angles in 2D shapes	<ul style="list-style-type: none"><li>• To recognise angles as a property of shape and associate angles with turning.</li><li>• To 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></ul>





## Year 3 Medium Term Planning Spring 2

Date	Week	Topic	Curriculum Objective
		Addition and subtraction of two-digit numbers using columns	<ul style="list-style-type: none"> <li>To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.</li> <li>To estimate the answer to a calculation and use inverse operations to check answers.</li> <li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>
		Multiplication and division: multiplying by multiples of 10, and dividing with remainders	<ul style="list-style-type: none"> <li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>To 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>To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
		Multiplication and division: multiplying and dividing larger numbers	<ul style="list-style-type: none"> <li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>To 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>To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
		Measuring using grams and kilograms	<ul style="list-style-type: none"> <li>To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</li> </ul>
		Fractions: representing, comparing and ordering unit and non-unit fractions of shapes and numbers	<ul style="list-style-type: none"> <li>To 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>To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</li> <li>To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</li> <li>To recognise and show, using diagrams, equivalent fractions with small denominators.</li> <li>To compare and order unit fractions, and fractions with the same denominators.</li> <li>To solve problems that involve all of the above.</li> </ul>
		Read and interpret bar charts, using scales	<ul style="list-style-type: none"> <li>To interpret and present data using bar charts, pictograms and tables.</li> <li>To 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>



# Year 3 Medium Term Planning Summer 1

Date	Week	Topic	Curriculum Objective
		Read, write and order and round two- and three- digit numbers	<ul style="list-style-type: none"> <li>To count from 0 in multiples of 4, 8, 50 and 100; finding 10 or 100 more or less than a given number.</li> <li>To recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</li> <li>To compare and order numbers up to 1000.</li> <li>To identify, represent and estimate numbers using different representations.</li> <li>To read and write numbers up to 1000 in numerals and in words.</li> <li>To solve number problems and practical problems involving these ideas.</li> </ul>
		Multiplication and division problems	<ul style="list-style-type: none"> <li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>To 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>To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
		Addition and subtraction of three-digit numbers and 1s, 10s and 100s	<ul style="list-style-type: none"> <li>To 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>To estimate the answer to a calculation and use inverse operations to check answers.</li> <li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>
		Addition and subtraction of two- and three-digit numbers using columns	<ul style="list-style-type: none"> <li>To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.</li> <li>To estimate the answer to a calculation and use inverse operations to check answers.</li> <li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>
		Shape: identifying horizontal, vertical, and curved lines	<ul style="list-style-type: none"> <li>To draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them with increasing accuracy.</li> <li>To recognise angles as a property of shape and associate angles with turning.</li> <li>To 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>To identify horizontal, vertical, perpendicular and parallel lines in relation to other lines.</li> </ul>
		Measuring using millilitres and litres	<ul style="list-style-type: none"> <li>To measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).</li> </ul>



## Year 3 Medium Term Planning Summer 2

Date	Week	Topic	Curriculum Objective
		Addition and subtraction of two- and three-digit numbers using and columns	<ul style="list-style-type: none"> <li>To add and subtract numbers with up to three digits, using the efficient written methods of columnar addition and subtraction.</li> <li>To estimate the answer to a calculation and use inverse operations to check answers.</li> <li>To solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</li> </ul>
		Multiplication and division problems: written methods	<ul style="list-style-type: none"> <li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>To 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>To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
		Short multiplication and division	<ul style="list-style-type: none"> <li>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</li> <li>To 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>To solve problems, including missing number problems, involving multiplication and division, including integer scaling problems and correspondence problems in which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
		Fractions: equivalence, addition and subtraction within 1, finding tenths	<ul style="list-style-type: none"> <li>To 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>To recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.</li> <li>To recognise and show, using diagrams, equivalent fractions with small denominators.</li> <li>To add and subtract fractions with the same denominator within one whole (<math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math>).</li> <li>To solve problems that involve all of the above.</li> </ul>
		Read and write time using 12 and 24 hour	<ul style="list-style-type: none"> <li>To 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>To 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 am/pm, morning, afternoon, noon and midnight.</li> <li>To know the number of seconds in a minute and the number of days in each month, year and leap year.</li> <li>To compare durations of events, for example to calculate the time taken by particular events or tasks.</li> </ul>
		Construct and interpret bar charts using scales	<ul style="list-style-type: none"> <li>To interpret and present data using bar charts, pictograms and tables.</li> <li>To 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>



## Year 4 Medium Term Planning Autumn 1

Date	Week	Topic	Curriculum Objective
		Number, place value and rounding	<ul style="list-style-type: none"><li>● To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).</li><li>● To identify, represent and estimate numbers using different representations.</li><li>● To order and compare numbers beyond 1000.</li><li>● To round any number to the nearest 10, 100 or 1000.</li><li>● To count in multiples of 6, 7, 9, 25, 1000.</li><li>● To find 1000 more or less than a given number.</li></ul>
		Mental addition and subtraction	<ul style="list-style-type: none"><li>● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li><li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li></ul>
		Multiplication	<ul style="list-style-type: none"><li>● To recall multiplication facts for multiplication tables up to <math>12 \times 12</math>.</li><li>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li><li>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
		Multiplication and division	<ul style="list-style-type: none"><li>● To recall multiplication facts for multiplication tables up to <math>12 \times 12</math>.</li><li>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li></ul>
		Geometry: properties of shapes	<ul style="list-style-type: none"><li>● To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</li><li>● To identify lines of symmetry in 2D shapes presented in different orientations.</li><li>● To complete a simple symmetric figure with respect to a specific line of symmetry.</li></ul>
		Measures	<ul style="list-style-type: none"><li>● To convert between different units of measure (for example, kilometre to metre; hour to minute).</li><li>● To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</li><li>● To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li><li>● To estimate, compare and calculate different measures, including money in pounds and pence.</li></ul>



## Year 4 Medium Term Planning Autumn 2

Date	Week	Topic	Curriculum Objective
		Mental and written addition and subtraction	<ul style="list-style-type: none"><li>• To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li><li>• To estimate and use inverse operations to check answers to a calculation.</li><li>• To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li></ul>
		Multiplication	<ul style="list-style-type: none"><li>• To recall multiplication facts for multiplication tables up to <math>12 \times 12</math>.</li><li>• To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li><li>• To recognise and use factor pairs and commutativity in mental calculations.</li><li>• To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li><li>• To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
		Multiplication and division	<ul style="list-style-type: none"><li>• To recall multiplication facts for multiplication tables up to <math>12 \times 12</math>.</li><li>• To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li><li>• To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
		Fractions	<ul style="list-style-type: none"><li>• To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.</li><li>• To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</li><li>• To recognise and show, using diagrams, families of common equivalent fractions.</li></ul>
		Geometry	<ul style="list-style-type: none"><li>• To describe positions on a 2D grid as coordinates in the first quadrant.</li><li>• To plot specified points and draw sides to complete a given polygon.</li><li>• To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</li><li>• To identify acute and obtuse angles and compare and order angles up to two right angles by size.</li></ul>
		Data handling and time	<ul style="list-style-type: none"><li>• To read, write and convert time between analogue and digital 12- and 24-hour clocks.</li><li>• To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li><li>• To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</li><li>• To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li></ul>



# Year 4 Medium Term Planning Spring 1

Date	Week	Topic	Curriculum Objective
		Number, place value and rounding	<ul style="list-style-type: none"> <li>To find 1000 more or less than a given number.</li> <li>To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).</li> <li>To order and compare numbers beyond 1000.</li> <li>To identify, represent and estimate numbers using different representations.</li> <li>To round any number to the nearest 10, 100 or 1000.</li> <li>To solve number and practical problems that involve all of the above and with increasingly large positive numbers.</li> <li>To read Roman numerals to 100 (I to C) and understand how, over time, the numeral system changed to include the concept of zero and place value.</li> </ul>
		Mental and written addition and subtraction	<ul style="list-style-type: none"> <li>To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li> <li>To estimate and use inverse operations to check answers to a calculation.</li> <li>To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> <li>To estimate, compare and calculate different measures, including money in pounds and pence.</li> </ul>
		Mental and written multiplication	<ul style="list-style-type: none"> <li>To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li> <li>To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li> <li>To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li> <li>To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
		Mental and written division	<ul style="list-style-type: none"> <li>To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li> <li>To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li> </ul>
		Fractions	<ul style="list-style-type: none"> <li>To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.</li> <li>To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</li> <li>To recognise and show, using diagrams, families of common equivalent fractions.</li> </ul>
		Fractions and decimals	<ul style="list-style-type: none"> <li>To recognise and write decimal equivalents of any number of tenths or hundredths.</li> <li>To recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math>.</li> <li>To find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as units, tenths and hundredths.</li> <li>To round decimals with one decimal place to the nearest whole number.</li> <li>To compare numbers with the same number of decimal places up to two decimal places.</li> <li>To solve simple measure and money problems involving fractions and decimals to two decimal places.</li> </ul>



## Year 4 Medium Term Planning Spring 2

Date	Week	Topic	Curriculum Objective
		Mental calculation	<ul style="list-style-type: none"><li>● To estimate and use inverse operations to check answers to a calculation.</li><li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li><li>● To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li><li>● To recognise and use factor pairs and commutativity in mental calculations.</li><li>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
		Written addition and subtraction	<ul style="list-style-type: none"><li>● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li><li>● To estimate and use inverse operations to check answers to a calculation.</li><li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li></ul>
		Time	<ul style="list-style-type: none"><li>● To read, write and convert time between analogue and digital 12- and 24-hour clocks.</li><li>● To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li></ul>
		Written multiplication and division	<ul style="list-style-type: none"><li>● To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li><li>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li><li>● To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li><li>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
		Geometry	<ul style="list-style-type: none"><li>● To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</li><li>● To identify acute and obtuse angles and compare and order angles up to two right angles by size.</li><li>● To describe positions on a 2D grid as coordinates in the first quadrant.</li><li>● To describe movements between positions as translations of a given unit to the left/right and up/down.</li><li>● To plot specified points and draw sides to complete a given polygon.</li></ul>
		Data handling and measurement	<ul style="list-style-type: none"><li>● To interpret and present discrete data using bar charts and continuous data using time graphs.</li><li>● To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li><li>● To convert between different units of measure (kilometre to metre; hour to minute).</li><li>● To estimate, compare and calculate different measures, including money in pounds and pence.</li></ul>



## Year 4 Medium Term Planning Summer 1

Date	Week	Topic	Curriculum objective
		Place value ideas	<ul style="list-style-type: none"><li>● To count in multiples of 6, 7, 9, 25 and 1000.</li><li>● To find 1000 more or less than a given number.</li><li>● To count backwards through zero to include negative numbers.</li><li>● To recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).</li><li>● To order and compare numbers beyond 1000.</li><li>● To identify, represent and estimate numbers using different representations.</li><li>● To round any number to the nearest 10, 100 or 1000.</li><li>● To solve number and practical problems that involve all of the above and with increasingly large positive numbers.</li></ul>
		Mental addition and subtraction and measures (use measures as a context for problems)	<ul style="list-style-type: none"><li>● To estimate and use inverse operations to check answers to a calculation.</li><li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li><li>● To estimate, compare and calculate different measures, including money in pounds and pence.</li></ul>
		Written addition and subtraction and measures	<ul style="list-style-type: none"><li>● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li><li>● To estimate and use inverse operations to check answers to a calculation.</li><li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li></ul>
		Mental and written multiplication and division	<ul style="list-style-type: none"><li>● To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li><li>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li><li>● To recognise and use factor pairs and commutativity in mental calculations.</li><li>● To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li><li>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li></ul>
		Fractions	<ul style="list-style-type: none"><li>● To count up and down in hundredths; recognise that hundredths arise when dividing an object by a hundred and dividing tenths by ten.</li><li>● To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.</li><li>● To recognise and show, using diagrams, families of common equivalent fractions.</li><li>● To add and subtract fractions with the same denominator.</li></ul>
		Area and perimeter of rectilinear shapes and capacity	<ul style="list-style-type: none"><li>● To convert between different units of measure (kilometre to metre; hour to minute).</li><li>● To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</li><li>● To find the area of rectilinear shapes by counting.</li><li>● To estimate, compare and calculate different measures, including money in pounds and pence.</li></ul>





## Year 4 Medium Term Planning Summer 2

Date	Week	Topic	Curriculum Objective
		Mental calculations	<ul style="list-style-type: none"> <li>● To estimate and use inverse operations to check answers to a calculation.</li> <li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> <li>● To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li> <li>● To recognise and use factor pairs and commutativity in mental calculations.</li> <li>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
		Measures	<ul style="list-style-type: none"> <li>● To convert between different units of measure (kilometre to metre; hour to minute).</li> <li>● To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</li> <li>● To find the area of rectilinear shapes by counting.</li> <li>● To estimate, compare and calculate different measures, including money in pounds and pence.</li> <li>● To read, write and convert time between analogue and digital 12- and 24-hour clocks.</li> <li>● To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</li> </ul>
		Written addition and subtraction	<ul style="list-style-type: none"> <li>● To add and subtract numbers with up to four digits using the efficient written methods of columnar addition and subtraction where appropriate.</li> <li>● To estimate and use inverse operations to check answers to a calculation.</li> <li>● To solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</li> </ul>
		Mental and written multiplication and division	<ul style="list-style-type: none"> <li>● To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</li> <li>● To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</li> <li>● To recognise and use factor pairs and commutativity in mental calculations.</li> <li>● To multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</li> <li>● To solve problems involving multiplying and adding, including using the distributive law and harder multiplication problems such as which <math>n</math> objects are connected to <math>m</math> objects.</li> </ul>
		2D shape, angles and coordinates	<ul style="list-style-type: none"> <li>● To compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</li> <li>● To identify acute and obtuse angles and compare and order angles up to two right angles by size.</li> <li>● To identify lines of symmetry in 2D shapes presented in different orientations.</li> <li>● To describe positions on a 2D grid as coordinates in the first quadrant.</li> <li>● To describe movements between positions as translations of a given unit to the left/right and up/down.</li> <li>● To plot specified points and draw sides to complete a given polygon.</li> </ul>
		Statistics	<ul style="list-style-type: none"> <li>● To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</li> <li>● To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and simple line graphs.</li> </ul>



## Year 5 Medium Term Planning Autumn 1

Date	Week	Topic	Curriculum Objective
		Place value to 1,000,000	<ul style="list-style-type: none"> <li>● To read, write, order and compare numbers at least to 1,000,000 and determine the value of each digit.</li> <li>● To count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.</li> </ul>
		Mental addition and subtraction	<ul style="list-style-type: none"> <li>● To add and subtract whole numbers with more than 4 digits, including using efficient written methods (columnar addition and subtraction).</li> <li>● To add and subtract numbers mentally with increasingly large numbers.</li> <li>● To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> </ul>
		Factors of numbers and prime numbers	<ul style="list-style-type: none"> <li>● To identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</li> <li>● To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</li> <li>● To solve problems involving multiplication and division where larger numbers are used by decomposing them into factors.</li> <li>● To know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.</li> <li>● To establish whether a number up to 100 is prime and recall prime numbers up to 19.</li> </ul>
		Using multiplication and division facts	<ul style="list-style-type: none"> <li>● To multiply and divide numbers mentally drawing upon known facts.</li> <li>● To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</li> <li>● To solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</li> </ul>
		Angles	<ul style="list-style-type: none"> <li>● To know angles are measured in degrees; estimate and compare acute, obtuse and reflex angles</li> <li>● To draw given angles, and measure them in degrees (°).</li> <li>● To identify:               <ul style="list-style-type: none"> <li>● angles at a point and one whole turn (total 360°)</li> <li>● angles at a point on a straight line and <math>\frac{1}{2}</math> a turn (total 180°)</li> <li>● other multiples of 90°.</li> </ul> </li> </ul>
		Length, perimeter and area	<ul style="list-style-type: none"> <li>● To convert between different units of measure (for example, kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre).</li> <li>● To understand and use equivalences between metric units and common imperial units such as inches, pounds and pints.</li> <li>● To use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.</li> <li>● To measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</li> <li>● To calculate and compare the area of squares and rectangles including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes.</li> </ul>



## Year 5 Medium Term Planning Autumn 2

Date	Week	Topic	Curriculum Objective
		Written methods for multiplication	<ul style="list-style-type: none"><li>• To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</li><li>• To multiply numbers up to 4 digits by a one- or two-digit number using an efficient written method, including long multiplication for two-digit numbers.</li><li>• To solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</li></ul>
		Divide 4-digit numbers	<ul style="list-style-type: none"><li>• To divide numbers up to 4 digits by a one-digit number using the efficient written method of short division and interpret remainders appropriately for the context.</li><li>• To multiply and divide numbers mentally drawing upon known facts.</li><li>• To solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</li></ul>
		Fractions and decimals: tenths and hundredths	<ul style="list-style-type: none"><li>• To compare and order fractions whose denominators are all multiples of the same number.</li><li>• To identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</li><li>• To read and write decimal numbers as fractions (for example, <math>0.71 = \frac{71}{100}</math>).</li></ul>
		Decimals: tenths, hundredths, thousandths	<ul style="list-style-type: none"><li>• To read, write, order and compare numbers with up to three decimal places.</li><li>• To read and write decimal numbers as fractions (for example, <math>0.71 = \frac{71}{100}</math>).</li><li>• To round decimals with two decimal places to the nearest whole numbers and to one decimal place.</li><li>• To recognise and use thousandths and relate them to tenths, hundredths and decimals equivalents.</li><li>• To solve problems involving number up to three decimal places.</li></ul>
		2D and 3D shapes	<ul style="list-style-type: none"><li>• To distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</li><li>• To use the properties of rectangles to deduce related facts and find missing lengths and angles.</li><li>• To identify 3D shapes including cubes and cuboids from 2D representations.</li></ul>
		Tables and bar charts	<ul style="list-style-type: none"><li>• To complete, read and interpret information in tables, including timetables.</li></ul>



# Year 5 Medium Term Planning Spring 1

Date	Week	Topic	Curriculum Objective
		Negative numbers, and solving problems involving numbers	<ul style="list-style-type: none"> <li>To read, write, order and compare numbers at least to 1,000,000 and determine the value of each digit.</li> <li>To count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.</li> <li>To interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero.</li> <li>To round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000.</li> <li>To solve number problems and practical problems that involve all of the above.</li> </ul>
		Addition and subtraction of large numbers and money	<ul style="list-style-type: none"> <li>To add and subtract whole numbers with more than 4 digits, including using efficient written methods (columnar addition and subtraction).</li> <li>To add and subtract numbers mentally with increasingly large numbers.</li> <li>To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> <li>To use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li> <li>To solve problems involving numbers up to three decimal places.</li> </ul>
		Long multiplication, square numbers and cube numbers	<ul style="list-style-type: none"> <li>To multiply and divide numbers mentally drawing upon known facts.</li> <li>To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</li> <li>To solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</li> <li>To multiply numbers up to 4 digits by a one- or two-digit number using an efficient written method, including long multiplication for two-digit numbers.</li> <li>To recognise and use square numbers and cube numbers, and the notation for squared (<math>^2</math>) and cubed (<math>^3</math>).</li> <li>To calculate and compare the area of squares and rectangles including using standard units, square centimetres (<math>\text{cm}^2</math>) and square metres (<math>\text{m}^2</math>) and estimate the area of irregular shapes.</li> </ul>
		Adding and subtracting fractions  Reflections and translations	<ul style="list-style-type: none"> <li>To recognise mixed numbers and improper fractions and convert from one form to the other; write mathematical statements <math>&gt; 1</math> as a mixed number: <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}</math>.</li> <li>To add and subtract fractions with the same denominator and multiples of the same number.</li> <li>To identify, describe and represent the position of a shape following a reflection or translation using the appropriate language, and know that the shape has not changed.</li> </ul>
		Mass	<ul style="list-style-type: none"> <li>To convert between different units of measure (kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre).</li> <li>To understand and use basic equivalences between metric units and common imperial units such as inches, pounds and pints.</li> <li>To use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling.</li> </ul>



## Year 5 Medium Term Planning Spring 2

Date	Week	Topic	Curriculum Objective
		Addition and subtraction: mental and written methods for large numbers	<ul style="list-style-type: none"><li>● To add and subtract whole numbers with more than 4 digits, including using efficient written methods (columnar addition and subtraction).</li><li>● To add and subtract numbers mentally with increasingly large numbers.</li><li>● To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li><li>● To use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li></ul>
		Multiplication and division: written methods	<ul style="list-style-type: none"><li>● To multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</li><li>● To multiply numbers up to 4 digits by a one- or two-digit number using an efficient written method, including long multiplication for two-digit numbers.<ul style="list-style-type: none"><li>● To divide numbers up to 4 digits by a one-digit number using the efficient written method of short division and interpret remainders appropriately for the context.</li></ul></li><li>● To solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.</li></ul>
		Calculating with fractions	<ul style="list-style-type: none"><li>● To recognise mixed numbers and improper fractions and convert from one form to the other; write mathematical statements <math>&gt; 1</math> as a mixed number: <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}</math>.</li><li>● To add and subtract fractions with the same denominator and multiples of the same number.</li><li>● To multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</li></ul>
		Percentages	<ul style="list-style-type: none"><li>● To recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator hundred, and as a decimal fraction.</li></ul>
		Capacity	<ul style="list-style-type: none"><li>● To convert between different units of measure (kilometre and metre; metre and centimetre; centimetre and millimetre; kilogram and gram; litre and millilitre).</li><li>● To understand and use basic equivalences between metric units and common imperial units such as inches, pounds and pints.</li><li>● To estimate volume and capacity</li><li>● To use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling</li></ul>
		Line graphs/ comparative graphs	<ul style="list-style-type: none"><li>● To solve comparison, sum and difference problems using information presented in a line graph.</li></ul>



## Year 5 Medium Term Planning Summer 1

Date	Week	Topic	Curriculum Objective
		Negative numbers and Roman numerals	<ul style="list-style-type: none"> <li>● To count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.</li> <li>● To interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero.</li> <li>● To round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000 and 100,000.</li> <li>● To solve number problems and practical problems that involve all of the above.</li> <li>● To read numerals to 1000 (M) and recognise years written in Roman numerals.</li> </ul>
		Adding and subtracting large and small numbers	<ul style="list-style-type: none"> <li>● To add and subtract whole numbers with more than 4 digits, including using efficient written methods (columnar addition and subtraction).</li> <li>● To add and subtract numbers mentally with increasingly large numbers.</li> <li>● To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> <li>● To use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li> <li>● To solve problems involving numbers up to three decimal places.</li> </ul>
		Long multiplication and division with remainders	<ul style="list-style-type: none"> <li>● To multiply numbers up to 4 digits by a one- or two-digit number using an efficient written method, including long multiplication for two-digit numbers.                             <ul style="list-style-type: none"> <li>● To divide numbers up to 4 digits by a one-digit number using the efficient written method of short division and interpret remainders appropriately for the context.</li> </ul> </li> <li>● To solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.</li> </ul>
		Working with fractions  Diagonals and problems involving angles	<ul style="list-style-type: none"> <li>● To recognise mixed numbers and improper fractions and convert from one form to the other; write mathematical statements <math>&gt; 1</math> as a mixed number: <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}</math></li> <li>● To add and subtract fractions with the same denominator and multiples of the same number.</li> <li>● To know angles are measured in degrees; estimate and compare acute, obtuse and reflex angles</li> <li>● To draw given angles, and measure them in degrees (<math>^{\circ}</math>).</li> <li>● To identify:                             <ul style="list-style-type: none"> <li>● angles at a point and one whole turn (total <math>360^{\circ}</math>)</li> <li>● angles at a point on a straight line and <math>\frac{1}{2}</math> a turn (total <math>180^{\circ}</math>)</li> <li>● other multiples of <math>90^{\circ}</math>.</li> </ul> </li> <li>● To use the properties of a rectangle to deduce related facts and find missing lengths and angles.</li> <li>● To distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</li> </ul>
		Volume, time and money	<ul style="list-style-type: none"> <li>● To estimate volume (e.g. using <math>1\text{ cm}^3</math> blocks to build cubes and cuboids) and capacity (e.g. using water).</li> <li>● To use all four operations to solve problems involving measure (e.g. length, mass, volume, money) using decimal notation including scaling</li> <li>● To solve problems involving converting between units of time.</li> </ul>



## Year 5 Medium Term Planning Summer 2

Date	Week	Topic	Curriculum Objective
		Addition and subtraction of money	<ul style="list-style-type: none"><li>● To add and subtract whole numbers with more than 4 digits, including using efficient written methods (columnar addition and subtraction).</li><li>● To add and subtract numbers mentally with increasingly large numbers.</li><li>● To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li></ul>
		Multiplication and division of money	<ul style="list-style-type: none"><li>● To multiply numbers up to 4 digits by a one- or two-digit number using an efficient written method, including long multiplication for two-digit numbers.</li><li>● To multiply and divide numbers mentally drawing upon known facts.</li><li>● To identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</li><li>● To solve problems involving multiplication and division where larger numbers are used by decomposing them into factors.</li><li>● To solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.</li></ul>
		Decimals and fractions	<ul style="list-style-type: none"><li>● To read, write, order and compare numbers with up to three decimal places.</li><li>● To read and write decimal numbers as fractions (for example, <math>0.71 = \frac{71}{100}</math>).</li><li>● To recognise and use thousandths and relate them to tenths, hundredths and decimals equivalents.</li><li>● To round decimals with two decimal places to the nearest whole numbers and to one decimal place.</li></ul>
		Problems involving percentages	<ul style="list-style-type: none"><li>● To recognise the per cent symbol (%) and understand that per cent relates to "number of parts per hundred", and write percentages as a fraction with denominator hundred, and as a decimal fraction.</li><li>● To solve problems which require knowing percentage and decimal equivalents of <math>\frac{1}{2}</math>, <math>\frac{1}{4}</math>, <math>\frac{1}{5}</math>, <math>\frac{4}{5}</math> and those with a denominator of a multiple of 10 or 25.</li></ul>
		Perimeter, area and scale drawing	<ul style="list-style-type: none"><li>● To measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</li><li>● To calculate and compare the area of squares and rectangles including using standard units, square centimetres (<math>\text{cm}^2</math>) and square metres (<math>\text{m}^2</math>) and estimate the area of irregular shapes.</li><li>● To solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.</li></ul>
		Using tables, and line graphs	<ul style="list-style-type: none"><li>● To complete, read and interpret information in tables, including timetables.</li><li>● To solve comparison, sum and difference problems using information presented in a line graph.</li></ul>



## Year 6 Medium Term Planning Autumn 1

Date	Week	Topic	Curriculum Objective
		Place value and rounding off	<ul style="list-style-type: none"><li>● To read, write, order and compare numbers at least to 10,000,000 and determine the value of each digit.</li><li>● To round any whole number to a required degree of accuracy.</li><li>● To solve number problems and practical problems that involve all of the above.</li></ul>
		Mental and written addition and subtraction of large numbers	<ul style="list-style-type: none"><li>● To perform mental calculations, including with mixed operations and large numbers.</li><li>● To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li></ul>
		Multiples, factors and prime numbers	<ul style="list-style-type: none"><li>● To perform mental calculations, including with mixed operations and large numbers.</li><li>● To identify common factors, common multiples and prime numbers.</li><li>● To solve problems involving addition, subtraction, multiplication and division.</li></ul>
		Written methods for multiplication and division: HTU $\times$ TU and HTU $\times$ U	<ul style="list-style-type: none"><li>● To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication.</li><li>● To divide numbers up to 4 digits by a two-digit whole number using the efficient written method of long division, and interpret remainders as whole number remainders, fractions or by rounding, as appropriate for the context.</li><li>● To solve problems involving addition, subtraction, multiplication and division.</li><li>● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li></ul>
		Circles and angles	<ul style="list-style-type: none"><li>● To illustrate and name parts of circles, including radius, diameter and circumference.</li><li>● To recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</li></ul>
		Units of measure	<ul style="list-style-type: none"><li>● To solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate.</li><li>● To use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa using decimal notation to three decimal places.</li><li>● To convert between miles and kilometres.</li></ul>





## Year 6 Medium Term Planning Autumn 2

Date	Week	Topic	Curriculum Objective
		Written methods for multiplication and division	<ul style="list-style-type: none"><li>• To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication.</li><li>• To divide numbers up to 4 digits by a two-digit whole number using efficient written methods of long division and interpret remainders as whole numbers, remainders, fractions or by rounding as appropriate in the context.</li></ul>
		Comparing, ordering and simplifying fractions	<ul style="list-style-type: none"><li>• To compare and order fractions, including fractions <math>&gt;1</math>.</li><li>• To use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</li></ul>
		Multiplying decimals by 10, 100 and 1000	<ul style="list-style-type: none"><li>• To identify the value of each digit to three decimal places and multiply and divide numbers by 10, 100, 1000 where the answers are up to three decimal places.</li><li>• To solve problems which require answers to be rounded to specified degrees of accuracy.</li></ul>
		Order of operations	<ul style="list-style-type: none"><li>• To perform mental calculations, including with mixed operations and large numbers.</li><li>• To use their knowledge of the order of operations to carry out calculations involving the four operations.</li><li>• To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li><li>• To solve problems involving addition, subtraction, multiplication and division.</li><li>• To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li></ul>
		2D and 3D shapes	<ul style="list-style-type: none"><li>• To draw 2D shapes using given dimensions and angles.</li><li>• To compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons.</li><li>• To recognise, describe and build simple 3D shapes, including making nets.</li></ul>
		Pie charts	<ul style="list-style-type: none"><li>• To interpret and construct pie charts and line graphs and use these to solve problems.</li></ul>



## Year 6 Medium Term Planning Spring 1

Date	Week	Topic	Curriculum Objective
		Negative numbers, and solving problems involving numbers	<ul style="list-style-type: none"> <li>● To read, write, order and compare numbers at least to 10,000,000 and determine the value of each digit.</li> <li>● To round any whole number to a required degree of accuracy.</li> <li>● To use negative numbers in context, and calculate intervals across zero.</li> <li>● To solve number problems and practical problems that involve all of the above.</li> </ul>
		Mental and written addition and subtraction of decimals and money	<ul style="list-style-type: none"> <li>● To perform mental calculations, including with mixed operations and large numbers.</li> <li>● To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li> <li>● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li> </ul>
		Mental and written multiplication and division	<ul style="list-style-type: none"> <li>● To perform mental calculations, including with mixed operation and large numbers.</li> <li>● To identify common factors, common multiples and prime numbers (Children could practise using mental methods that involve using factors, for example.)</li> <li>● To use their knowledge of the order of operations to carry out calculations involving the four operations.</li> <li>● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li> </ul>
		Calculating with fractions	<ul style="list-style-type: none"> <li>● To add and subtract fractions with different denominators, using the concept of equivalent fractions.</li> <li>● To associate a fraction with division to calculate decimal fraction equivalents (0.375) for a simple fraction (<math>\frac{3}{8}</math>).</li> <li>● To multiply simple pairs of proper fractions, writing the answer in its simplest form (<math>\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}</math>).</li> <li>● To divide proper fractions by whole numbers (<math>\frac{1}{3} \div 2 = \frac{1}{6}</math>).</li> </ul>
		Reflections and translations on coordinate axes	<ul style="list-style-type: none"> <li>● To describe positions on the full co-ordinate grid (all four quadrants).</li> <li>● To draw and translate simple shapes on the co-ordinate plane, and reflect them in the axes.</li> </ul>
		Perimeter, area and volume	<ul style="list-style-type: none"> <li>● To recognise that shapes with the same area can have different perimeters and vice versa.</li> <li>● To calculate the area of parallelograms and triangles.</li> <li>● To recognise when it is necessary to use the formulae for area and volume of shapes.</li> <li>● To calculate, estimate and compare volume of cubes and cuboids using standard units, including centimetre cubed (<math>\text{cm}^3</math>) and cubic metres (<math>\text{m}^3</math>) and extending to other units such as <math>\text{mm}^3</math> and <math>\text{km}^3</math>.</li> </ul>



## Year 6 Medium Term Planning Spring 2

Date	Week	Title	Curriculum Objective
		Calculating with large numbers	<ul style="list-style-type: none"><li>• To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication.</li><li>• To divide numbers up to 4 digits by a two-digit whole number using the efficient written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.</li><li>• To perform mental calculations, including with mixed operations and large numbers.</li><li>• To use their knowledge of the order of operations to carry out calculations involving the four operations.</li><li>• To solve problems involving addition, subtraction, multiplication and division.</li></ul>
		Multiplying and dividing decimals	<ul style="list-style-type: none"><li>• To multiply one-digit numbers with up to two decimal places by whole numbers.</li><li>• To use written division methods in cases where the answer has up to two decimal places.</li><li>• To solve problems which require answers to be rounded to specified degrees of accuracy.</li></ul>
		Percentages, decimals and fractions	<ul style="list-style-type: none"><li>• To solve problems involving the calculation of percentages of whole numbers or measures and the use of percentages for comparison.</li><li>• To recall and use equivalences between simple fractions, decimals and percentages, including different contexts.</li></ul>
		Simple formulae	<ul style="list-style-type: none"><li>• To express missing number problems algebraically.</li><li>• To use simple formulae expressed in words.</li><li>• To find pairs of numbers that satisfy number sentences involving two unknowns.</li><li>• To enumerate all possibilities of combinations of two variables.</li></ul>
		Area and volume	<ul style="list-style-type: none"><li>• To solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places, where appropriate.</li><li>• To use read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit and vice versa, using decimal notation to three decimal places.</li><li>• To calculate the area of parallelograms and triangles.</li><li>• To recognise when it is necessary to use the formulae for area and volume of shapes.</li></ul>
		Line graphs	<ul style="list-style-type: none"><li>• To interpret and construct pie charts and line graphs and use these to solve problems.</li></ul>



## Year 6 Medium Term Planning Summer 1

Date	Week	Topic	Curriculum Objective
		Problems involving number	<ul style="list-style-type: none"><li>● To read, write, order and compare numbers up to 10,000,000 and determine the value of each digit.</li><li>● To round any whole number to a required degree of accuracy.</li><li>● To use negative numbers in context and calculate intervals across zero.</li><li>● To solve number problems and practical problems that involve all the above.</li></ul>
		Adding and subtracting large and small numbers	<ul style="list-style-type: none"><li>● To perform mental calculations, including with mixed operations and large numbers.</li><li>● To solve addition and subtraction multi-step problems in contexts, deciding which operations to use and why.</li><li>● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li></ul>
		Long multiplication and division	<ul style="list-style-type: none"><li>● To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written methods of long multiplication.</li><li>● To divide numbers up to 4 digits by two digit whole numbers using the efficient written method of long division and interpret remainders as whole number remainders, fractions or by rounding, as appropriate for the context.</li><li>● To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li></ul>
		Working with fractions	<ul style="list-style-type: none"><li>● To add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</li><li>● To multiply simple pairs of proper fractions, writing the answer in its simplest form.</li><li>● To divide proper fractions by whole numbers.</li></ul>
		Problems involving percentages, fractions and decimals	<ul style="list-style-type: none"><li>● To solve problems involving the calculation of percentages of whole numbers or measures and the use of percentages for comparison.</li><li>● To recall and use equivalences between simple fractions, decimals and percentages including in different contexts.</li></ul>
		Ratio and proportion	<ul style="list-style-type: none"><li>● To solve problems involving the relative size of two quantities where missing values can be found by using integer multiplication and division facts.</li><li>● To solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</li><li>● To solve problems involving similar shapes where the scale factor is known or can be found.</li></ul>



## Year 6 Medium Term Planning Summer 2

Date	Week	Topic	Curriculum Objective
		Solving problems involving money	<ul style="list-style-type: none"><li>• To multiply multi-digit numbers up to 4 digits by a two-digit whole number using the efficient written method of long multiplication.</li><li>• To divide numbers up to 4 digits by a two-digit whole number using the efficient written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context.</li><li>• To perform mental calculations, including with mixed operations and large numbers.</li><li>• To use their knowledge of the order of operations to carry out calculations involving the four operations.</li><li>• To solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</li><li>• To solve problems involving addition, subtraction, multiplication and division.</li><li>• To use estimation to check answers to calculations and determine, in the context of a problem, levels of accuracy.</li></ul>
		Number puzzles	<ul style="list-style-type: none"><li>• To express missing number problems algebraically.</li><li>• To use simple formulae expressed in words.</li><li>• To generate and describe linear number sequences.</li><li>• To find pairs of numbers that satisfy number sentences involving two unknowns.</li><li>• To enumerate all possibilities of combinations of two variables.</li></ul>
		Fractions with different denominators	<ul style="list-style-type: none"><li>• To multiply simple pairs of proper fractions, writing the answer in its simplest form (<math>\frac{1}{4} \div \frac{1}{2} = \frac{1}{8}</math>).</li><li>• To use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</li><li>• To add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions.</li></ul>
		Problems involving percentages and decimals	<ul style="list-style-type: none"><li>• To solve problems involving the calculation of percentages of whole numbers or measures such as 15% of 360 and the use of percentages for comparison.</li><li>• To recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</li></ul>
		Problems involving measures	<ul style="list-style-type: none"><li>• To solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate.</li><li>• To use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a large unit and vice versa, using decimal notation to three decimal places.</li></ul>
		Using data	<ul style="list-style-type: none"><li>• To interpret and construct pie charts and line graphs and use these to solve problems.</li><li>• To calculate and interpret the mean as an average.</li></ul>