



# Maths

## Curriculum Map

# Maths Overview



	Autumn	Spring	Summer
Year 6	<p><b>Integers and decimals</b></p> <ul style="list-style-type: none"> <li>Represent, read, write, order and compare numbers up to ten million</li> <li>Round numbers, make estimates and use this to solve problems in context</li> <li>Solve multi-step problems involving addition and subtraction</li> </ul> <p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>Identify and use properties of number, focusing on primes</li> <li>Multiply larger integers and decimal numbers using a range of strategies</li> <li>Divide integers by 1-digit and 2-digit numbers representing remainders appropriately</li> <li>Illustrate and explain formal multiplication and division strategies</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>Deepen understanding of equivalence</li> <li>Order, simplify and compare fractions, including those greater than one</li> <li>Recall equivalence between common fractions and decimals</li> <li>Find decimal quotients using short division</li> <li>Add and subtract fractions</li> </ul>	<p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>Represent multiplication involving fractions</li> <li>Multiply two proper fractions</li> <li>Divide a fraction by an integer</li> </ul> <p><b>Calculation problems</b></p> <ul style="list-style-type: none"> <li>Understand the use of brackets</li> <li>Use knowledge of the order of operations to carry out calculations</li> <li>Generate and describe linear number sequences</li> <li>Express missing number problems algebraically</li> <li>Solve equations with unknown values</li> </ul> <p><b>Decimals and measure</b></p> <ul style="list-style-type: none"> <li>Use, read, write and convert between standard units of measures; length, mass, time, money and volume as well as imperial units</li> <li>Calculate the area of parallelograms and triangles</li> <li>Calculate, estimate and compare the volume of cuboids</li> </ul> <p><b>Percentages and statistics</b></p> <ul style="list-style-type: none"> <li>Calculate and compare percentages of amounts</li> <li>Connect percentages with fractions</li> <li>Explore the equivalence of fractions, decimals and percentages</li> <li>Calculate the mean</li> <li>Construct and interpret lines graphs and pie charts</li> <li>Compare pie charts</li> </ul>	<p><b>Missing angles and length</b></p> <ul style="list-style-type: none"> <li>Compare and classify a range of geometric shapes</li> <li>Use angle facts to find unknown angles</li> </ul> <p><b>Co-ordinates and shape</b></p> <ul style="list-style-type: none"> <li>Draw a range of geometric shapes using given dimensions and angles</li> <li>Describe, draw, translate and reflect shapes on a co-ordinate plane</li> <li>Recognise and construct 3-D shapes</li> <li>Name and illustrate parts of a circle</li> </ul> <p><b>Proportion problems</b></p> <ul style="list-style-type: none"> <li>Use fractions to express proportion</li> <li>Identify ratio as a relationship between quantities and as a scale factor</li> <li>Unequal sharing involving ratio</li> </ul>

	Autumn	Spring	Summer
Year 5	<p><b>Reasoning with large whole integers</b></p> <ul style="list-style-type: none"> <li>Read, write, order and compare numbers up to one million</li> <li>Round numbers within one million to the nearest multiple of powers of ten</li> <li>Read Roman numerals up to M</li> </ul> <p><b>Integer addition and subtraction</b></p> <ul style="list-style-type: none"> <li>Use rounding to estimate</li> <li>Use a range of mental calculation strategies to add and subtract integers</li> <li>Illustrate and explain the written method of column addition and subtraction</li> <li>Select efficient calculation strategies</li> </ul> <p><b>Lines, graphs and timetables</b></p> <ul style="list-style-type: none"> <li>Complete, read and interpret data presented in line graphs</li> <li>Read and interpret timetables including calculating intervals</li> </ul> <p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>Identify multiples and factors</li> <li>Investigate prime numbers</li> <li>Multiply and divide by 10, 100 and 1000 (integers)</li> <li>Multiply and divide using derived facts</li> <li>Use written methods to multiply and divide</li> <li>Use a range of mental calculation strategies</li> </ul> <p><b>Perimeter and area</b></p> <ul style="list-style-type: none"> <li>Investigate area and perimeter of rectilinear shapes</li> <li>Estimate area of non rectilinear shapes</li> </ul>	<p><b>Fractions and decimals</b></p> <ul style="list-style-type: none"> <li>Read, write, order and compare decimals</li> <li>Round decimals to the nearest whole number</li> <li>Represent, identify, name, write, order and compare fractions (including improper and mixed numbers)</li> <li>Calculate fractions of amounts</li> </ul> <p><b>Angles</b></p> <ul style="list-style-type: none"> <li>Classify, compare and order angles</li> <li>Measure a draw angles with a protractor</li> <li>Understand and use angle facts to calculate missing angles</li> </ul> <p><b>Fractions and percentages</b></p> <ul style="list-style-type: none"> <li>Add, subtract fractions with denominators that are multiples of the same number</li> <li>Multiply fractions (and mixed numbers) by a whole number</li> <li>Explore percentage, decimal, fractions equivalence</li> </ul> <p><b>Transformations</b></p> <ul style="list-style-type: none"> <li>Coordinates in all four quadrants</li> <li>Translation and reflection</li> <li>Calculate intervals across zero as a context for negative numbers</li> </ul>	<p><b>Converting units of measure</b></p> <ul style="list-style-type: none"> <li>Convert between metric units of length, mass and capacity and units of time</li> <li>Know and use approximate conversion between imperial and metric</li> </ul> <p><b>Calculating with whole numbers and decimals</b></p> <ul style="list-style-type: none"> <li>Mental strategies to add and subtract involving decimals</li> <li>Formal written strategies to add, subtract and multiply involving decimals</li> <li>Multiply and divide decimal numbers by ten, 100 and 1,000</li> <li>Derive addition, subtraction and multiplication facts involving decimals</li> </ul> <p><b>2D and 3D shape</b></p> <ul style="list-style-type: none"> <li>Classify 2-D shapes and reason about regular and irregular polygons</li> <li>Properties of diagonals of quadrilaterals</li> <li>Classify 3-D shapes</li> <li>2-D representations of 3-D shapes</li> </ul> <p><b>Volume</b></p> <ul style="list-style-type: none"> <li>Use cube numbers and notation</li> <li>Estimate volume</li> <li>Convert units of volume</li> </ul> <p><b>Problem solving</b></p> <ul style="list-style-type: none"> <li>Negative numbers and calculating intervals across zero</li> <li>Calculating the mean</li> <li>Interpret remainders</li> <li>Investigate numbers: consecutive, palindromic, multiples</li> </ul>

	Autumn	Spring	Summer
Year 4	<p><b>Reasoning with large numbers</b></p> <ul style="list-style-type: none"> <li>• 4-digit place value. Read, write, represent, order and compare</li> <li>• Find 10, 100 or 1000 more or less</li> <li>• Round numbers to the nearest 10, 100 or 1000</li> </ul> <p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>• Select appropriate strategies to add and subtract</li> <li>• Illustrate and explain appropriate addition and subtraction strategies including column method with regrouping</li> </ul> <p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Identify and explore patterns in multiplication tables including 7 and 9</li> <li>• Distributive property including multiplying three 1-digit numbers</li> <li>• Mental multiplication and division strategies using place value and known and derived facts</li> <li>• Short multiplication</li> </ul> <p><b>Discrete and continuous data</b></p> <ul style="list-style-type: none"> <li>• Read, interpret and construct pictograms, bar charts and time graphs</li> <li>• Compare tables, pictograms and bar charts</li> </ul>	<p><b>Calculating with multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Division using partitioning</li> <li>• Short division</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>• Explore different interpretations and representations of fractions</li> <li>• Equivalent fractions</li> <li>• Represent fractions greater than one as mixed number and improper fractions</li> <li>• Add and subtract fractions with the same denominator including fractions greater than one</li> </ul> <p><b>Time</b></p> <ul style="list-style-type: none"> <li>• Analogue to digital, 12- hour and 24-hour</li> <li>• Convert between units of time</li> </ul> <p><b>Decimals</b></p> <ul style="list-style-type: none"> <li>• Decimal equivalents to tenths, quarters and halves</li> <li>• Compare and order numbers with same number of decimal places</li> <li>• Multiply and divide by 10 and 100 including decimals</li> </ul> <p><b>Area and perimeter</b></p> <ul style="list-style-type: none"> <li>• Perimeter of rectangles and rectilinear shapes</li> <li>• Area of rectangles and rectilinear shapes</li> <li>• Investigate area and perimeter</li> </ul>	<p><b>Solving measures and money problems</b></p> <ul style="list-style-type: none"> <li>• Convert units of measure</li> <li>• Select appropriate units to measure</li> <li>• Use strategies to investigate problems: trial and improvement, organising using lists and tables, working systematically</li> </ul> <p><b>Shape and symmetry</b></p> <ul style="list-style-type: none"> <li>• Classify, compare and order angles</li> <li>• Compare and classify 2-D shapes</li> <li>• Identify lines of symmetry</li> </ul> <p><b>Position and direction</b></p> <ul style="list-style-type: none"> <li>• Describe and plot using coordinates</li> <li>• Describe translations</li> </ul> <p><b>Reasoning with pattern and sequences</b></p> <ul style="list-style-type: none"> <li>• Roman numerals up to 100</li> <li>• Place value of other number systems</li> <li>• Number sequences and patterns</li> </ul> <p><b>3D shape</b></p> <ul style="list-style-type: none"> <li>• Use understanding of 3-D shapes</li> <li>• Identify 3-D shapes from 2-D representations</li> </ul>

	Autumn	Spring	Summer
Year 3	<p><b>Number sense and exploring calculation strategy</b></p> <ul style="list-style-type: none"> <li>• Read, write, order numbers to 100</li> <li>• Calculate mentally using known facts, round and adjust, near doubles, adding on to find the difference</li> <li>• Derive new facts from a known fact</li> </ul> <p><b>Place Value</b></p> <ul style="list-style-type: none"> <li>• Read, write, represent, partition, order and compare 3-digit numbers</li> <li>• Find 10 and 100 more or less</li> <li>• Round to the nearest multiple of 10 and 100</li> </ul> <p><b>Graphs</b></p> <ul style="list-style-type: none"> <li>• Collect, interpret and present data using charts and tables</li> </ul> <p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>• Develop and use a range of mental calculation strategies</li> <li>• Illustrate and explain formal written methods – column method</li> </ul> <p><b>Length and perimeter</b></p> <ul style="list-style-type: none"> <li>• Measure, draw and compare lengths</li> <li>• Add and subtract lengths</li> <li>• Calculate perimeter</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Understanding multiplicative relationships: commutativity and inverse</li> <li>• Exploring multiplication and division facts for 2, 3, 4, 5, 6, 8 and 10</li> </ul> <p><b>Calculating with multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Multiply and divide by 10</li> <li>• Multiply a 2-digit number by a 1-digit number</li> <li>• Divide 2-digit by a 1-digit</li> <li>• Correspondence problems</li> </ul> <p><b>Time</b></p> <ul style="list-style-type: none"> <li>• Tell, record, write and order the time analogue and digital</li> <li>• 12-hour, a.m., p.m.</li> <li>• Measure, calculate and compare durations</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>• Part-whole relationships</li> <li>• Fractions as part of a whole or a whole set and as a number</li> <li>• Add, subtract, compare and order fractions</li> </ul>	<p><b>Angles and shape</b></p> <ul style="list-style-type: none"> <li>• Identify angles including right angles and recognise as a quarter of a turn</li> <li>• Identify and draw parallel and perpendicular lines</li> <li>• Draw/make, classify and compare 2-D and 3-D shapes</li> <li>• Measure the perimeter</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>• Read scales with different intervals when measuring mass and volume</li> <li>• Weigh and compare masses and capacities with mixed units</li> <li>• Estimate mass and capacity</li> </ul> <p><b>Applying multiplicative thinking</b></p> <ul style="list-style-type: none"> <li>• Representing multiplication and division problems</li> <li>• Solve a one-step problem</li> </ul> <p><b>Exploring calculation strategies and place value</b></p> <ul style="list-style-type: none"> <li>• Add and subtract mentally</li> <li>• Find 10, 100 and 1000 more or less</li> <li>• Order and compare beyond 1000</li> <li>• Round numbers</li> </ul>

	Autumn	Spring	Summer
Year 2	<p><b>Numbers within 100</b></p> <ul style="list-style-type: none"> <li>Read, write, represent, partition, compare and order numbers to 100</li> <li>Explore patterns including, odds and evens, tens and ones</li> </ul> <p><b>Addition and subtraction of 2 digit numbers</b></p> <ul style="list-style-type: none"> <li>Apply number bonds to add and subtract</li> <li>Represent and explain addition and subtraction of two 2-digit numbers.</li> <li>Add three 1-digit numbers</li> </ul> <p><b>Addition and subtraction word problems</b></p> <ul style="list-style-type: none"> <li>Introduction to bar models as a representation</li> <li>Create, label and sketch bar models</li> </ul> <p><b>Measures: length</b></p> <ul style="list-style-type: none"> <li>Draw and measure lengths in centimetres</li> <li>Use and = to compare and order lengths in metres and centimetres</li> </ul> <p><b>Graphs</b></p> <ul style="list-style-type: none"> <li>Represent and interpret: pictograms, block diagrams, tables and tally charts.</li> </ul> <p><b>Multiplication and Division</b></p> <ul style="list-style-type: none"> <li>Explore multiplication and division through arrays</li> <li>Explore division as grouping and as sharing</li> <li>Connect multiplication and division facts using commutativity and inverse</li> <li>Calculate the times tables of 2, 5, and 10 using different strategies</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>Tell the time on an analogue clock: quarter past, quarter to and five minute intervals</li> <li>Calculate durations of time in minutes and seconds</li> <li>Sequence daily events</li> <li>Minutes in an hour and hours in a day</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>Part-whole relationships</li> <li>Fractions as part of a whole or a whole set</li> <li>Relate to division</li> <li>Equivalent fractions</li> </ul> <p><b>Addition and subtraction of 2 digit numbers</b></p> <ul style="list-style-type: none"> <li>Illustrate, represent and explain addition and subtraction involving regrouping including 'Make Ten', 'Round and adjust' and near doubles strategies</li> </ul> <p><b>Money</b></p> <ul style="list-style-type: none"> <li>Recognise coins and notes</li> <li>Use £ and p accurately</li> <li>Add and subtract amounts</li> <li>Calculate change</li> </ul> <p><b>Faces, shapes and patterns: lines and turns</b></p> <ul style="list-style-type: none"> <li>Explore, sort and describe 2-D shapes</li> <li>Lines of symmetry in 2-D shapes</li> <li>Identify 2-D shapes on 3-D shapes</li> <li>Compare and sort 2-D and 3-D shapes</li> <li>Use language to describe position, direction and rotation to follow a route</li> </ul>	<p><b>Numbers within 1000</b></p> <ul style="list-style-type: none"> <li>Represent in different ways</li> <li>Compare using symbols</li> <li>Read scales</li> </ul> <p><b>Measures: capacity and volume</b></p> <ul style="list-style-type: none"> <li>Read and measure temperature</li> <li>Estimate, measure and understand litres and millilitres</li> <li>Compare and order capacities</li> </ul> <p><b>Measures: mass</b></p> <ul style="list-style-type: none"> <li>Weigh and compare masses in kilograms and grams</li> </ul> <p><b>Exploring calculation strategies</b></p> <ul style="list-style-type: none"> <li>Apply addition and subtraction strategies to solve equations</li> <li>Illustrate and explain addition and subtraction using column method</li> </ul> <p><b>Exploring multiplicative thinking</b></p> <ul style="list-style-type: none"> <li>Pattern seek with multiples of 2, 3, 4 5 and 10 using an array</li> <li>Use known facts to derive facts from the 3 and 4 times tables.</li> <li>Connect multiplication and division facts using commutativity and inverse</li> </ul>

	Autumn	Spring	Summer
Year 1	<p><b>Numbers to 10</b></p> <ul style="list-style-type: none"> <li>• Represent, compare and explore numbers within 10</li> <li>• One more and one less</li> <li>• Doubling and halving</li> </ul> <p><b>Addition and subtraction within 10</b></p> <ul style="list-style-type: none"> <li>• Represent and explain addition and subtraction</li> <li>• Commutativity</li> <li>• Addition and subtraction facts</li> </ul> <p><b>Shape and patterns</b></p> <ul style="list-style-type: none"> <li>• Identify, describe, sort and classify 2-D and 3-D shapes</li> <li>• Investigate repeating patterns</li> <li>• Use and follow instructional and positional language</li> </ul> <p><b>Numbers to 20</b></p> <ul style="list-style-type: none"> <li>• Identify, represent, compare and order numbers to 20</li> <li>• Doubling and halving</li> <li>• One more and one less</li> </ul> <p><b>Addition and subtraction within 20</b></p> <ul style="list-style-type: none"> <li>• Represent and explain addition and subtraction strategies including 'Make Ten'</li> <li>• Use known facts to add and subtract</li> </ul>	<p><b>Time</b></p> <ul style="list-style-type: none"> <li>• Read, write and tell the time to o'clock and half past on analogue clock</li> <li>• Sequencing daily activities</li> <li>• Whole and half turns linked to time</li> </ul> <p><b>Exploring calculation strategies within 20</b></p> <ul style="list-style-type: none"> <li>• Model, explain and choose addition and subtraction strategies</li> </ul> <p><b>Numbers to 50</b></p> <ul style="list-style-type: none"> <li>• 2-digit numbers – represent, sequence, explore, compare.</li> <li>• Count in 2s, 5s and 10s</li> <li>• Describe and complete number patterns</li> </ul> <p><b>Addition and subtraction within 20</b></p> <ul style="list-style-type: none"> <li>• Illustrate, explain and link addition and subtraction with equations</li> <li>• Apply 'Make Ten' strategy</li> <li>• Use language to quantify and compare difference</li> </ul> <p><b>Fractions</b></p> <ul style="list-style-type: none"> <li>• Identify 1/2 and 1/4 of a shape or object</li> <li>• Find 1/2 and 1/4 of a quantity</li> </ul> <p><b>Measures: length and mass</b></p> <ul style="list-style-type: none"> <li>• Compare and measure lengths and mass using cm and kg</li> <li>• Doubling and halving</li> </ul>	<p><b>Numbers 50 to 100 and beyond</b></p> <ul style="list-style-type: none"> <li>• Read, write, represent, compare and order numbers to 100</li> <li>• One more / fewer, ten more / fewer •Identify number patterns</li> </ul> <p><b>Addition and subtraction</b></p> <ul style="list-style-type: none"> <li>• Explore addition and subtraction involving 2- digit numbers and ones</li> <li>• Represent and explain addition and subtraction with regrouping</li> <li>• Investigate number bonds within 20</li> </ul> <p><b>Money</b></p> <ul style="list-style-type: none"> <li>• Name coins and notes and understand their value</li> <li>• Represent the same value using different coins</li> <li>• Find change</li> </ul> <p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>• Explore arrays</li> <li>• Share equally into groups</li> <li>• Doubling</li> <li>• Link halving to fractions</li> </ul> <p><b>Measures: capacity and volume</b></p> <ul style="list-style-type: none"> <li>• Compare capacities, volumes and lengths</li> <li>• Explore litres</li> <li>• Apply understanding of fractions to capacity</li> </ul>

	Autumn	Spring	Summer
EYFS	<p><b>Early Mathematical Experience</b></p> <ul style="list-style-type: none"> <li>Classifying objects based on one attribute</li> <li>Matching equal and unequal sets</li> <li>Comparing objects and sets</li> <li>Ordering objects and sets</li> </ul> <p><b>Pattern and early number</b></p> <ul style="list-style-type: none"> <li>Recognise, describe, copy and extend colour and size patterns</li> <li>Count and represent the numbers 1 to 3</li> <li>Estimate and check by counting</li> </ul> <p><b>Numbers within 6</b></p> <ul style="list-style-type: none"> <li>Count up to six objects.</li> <li>One more or one fewer</li> <li>Order numbers 1 – 6</li> <li>Conservation of numbers within six</li> </ul> <p><b>Addition and subtraction within 6</b></p> <ul style="list-style-type: none"> <li>Explore zero</li> <li>Explore addition and subtraction</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>Estimate, order compare, discuss and explore capacity, weight and lengths</li> </ul> <p><b>Shape and sorting</b></p> <ul style="list-style-type: none"> <li>Describe, and sort 3- D shapes</li> <li>Describe position accurately</li> </ul>	<p><b>Numbers within 10</b></p> <ul style="list-style-type: none"> <li>Count up to ten objects</li> <li>Represent, order and explore numbers to ten</li> <li>One more or fewer, one greater or less</li> </ul> <p><b>Calendar and time</b></p> <ul style="list-style-type: none"> <li>Days of the week, seasons</li> <li>Sequence daily events</li> </ul> <p><b>Addition and subtraction within 10</b></p> <ul style="list-style-type: none"> <li>Explore addition as counting on and subtraction as taking away</li> </ul> <p><b>Grouping and sharing</b></p> <ul style="list-style-type: none"> <li>Counting and sharing in equal groups</li> <li>Grouping into fives and tens</li> <li>Relationship between grouping and sharing</li> </ul> <p><b>Number patterns within 15</b></p> <ul style="list-style-type: none"> <li>Count up to 15 objects and recognise different representations</li> <li>Order and explore number patterns to 15</li> <li>One more or fewer</li> </ul> <p><b>Doubling and halving</b></p> <ul style="list-style-type: none"> <li>Doubling and halving</li> <li>Relationship between doubling and halving</li> </ul> <p><b>Shape and pattern</b></p> <ul style="list-style-type: none"> <li>Describe and sort 2-D and 3-D shapes</li> <li>Recognise, complete and create patterns</li> </ul>	<p><b>Securing addition and subtraction facts</b></p> <ul style="list-style-type: none"> <li>Commutativity</li> <li>Explore addition and subtraction</li> <li>Compare two amounts</li> </ul> <p><b>Number patterns within 20</b></p> <ul style="list-style-type: none"> <li>Count up to 10 and beyond with objects</li> <li>Represent, compare and explore numbers to 20</li> <li>One more or fewer</li> </ul> <p><b>Number patterns beyond 20</b></p> <ul style="list-style-type: none"> <li>One more one less</li> <li>Estimate and count</li> <li>Grouping and sharing</li> </ul> <p><b>Money</b></p> <ul style="list-style-type: none"> <li>Coin recognition and values</li> <li>Combinations to total 20p</li> <li>Change from 10p</li> </ul> <p><b>Measures</b></p> <ul style="list-style-type: none"> <li>Describe capacities</li> <li>Compare volumes</li> <li>Compare weights</li> <li>Estimate, compare and order lengths</li> </ul> <p><b>Exploration of pattern within number</b></p> <ul style="list-style-type: none"> <li>Explore numbers and strategies</li> <li>Recognise and extend patterns</li> <li>Apply number, shape and measures knowledge</li> <li>Count forwards and backwards</li> </ul>