

# MATHS Subject Overview

	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1	SUMMER 2
<b>Year 6</b>	<p><b>Number and Place Value</b> Read, write, order and compare numbers up to 10 000 000 and determine the value of each digit</p> <p>Round any whole number</p> <p>Use negative numbers in context, and calculate intervals across zero</p> <p>Solve number and practical problems that involve all of the above</p> <p>Identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places</p> <p><b>Number – Addition and Subtraction</b> Solve addition and subtraction multi-step problems in contexts.</p> <p><b>Number – Multiplication and Division</b> Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication.</p> <p>Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding.</p> <p>Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.</p> <p>Use their knowledge of the order of operations to carry out calculations involving the four operations.</p> <p>Multiply one-digit numbers with up to two decimal places by whole numbers.</p> <p>Use written division methods in cases where the answer has up to two decimal places.</p> <p>Solve problems which require answers to be rounded to specified degrees of accuracy.</p>	<p><b>Number – Addition and Subtraction</b> <b>Number – Multiplication and Division</b> Solve problems involving addition, subtraction, multiplication and division.</p> <p>Use estimation to check answers to calculations.</p> <p>Perform mental calculations, including with mixed operations and large numbers</p> <p><b>Number – Fractions (including decimals)</b> use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</p> <p>Compare and order fractions, including fractions <math>&gt; 1</math></p> <p>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form.</p> <p>Divide proper fractions by whole numbers, associate a fraction with division and calculate decimal fraction equivalents for a simple fraction.</p> <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p> <p><b>Geometry – Properties of Shape</b> Draw 2-D shapes using given dimensions and angles.</p> <p>Recognise, describe and build simple 3-D shapes, including making nets.</p> <p>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.</p> <p>Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</p> <p>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</p> <p><b>Geometry – Position and Direction</b> Describe positions on the full coordinate grid (all four quadrants)</p> <p>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</p>	<p><b>Number – Addition and Subtraction</b> <b>Number – Multiplication and Division</b> Perform mental calculations, including with mixed operations and large numbers</p> <p>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places.</p> <p><b>Measurement</b> 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 up to three decimal places.</p> <p>Convert between miles and kilometres.</p> <p>Recognise that shapes with the same areas can have different perimeters and vice versa.</p> <p>Recognise when it is possible to use formulae for area and volume of shapes.</p> <p>Calculate the area of parallelograms and triangles.</p> <p>Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (<math>\text{cm}^3</math>) and cubic metres (<math>\text{m}^3</math>), and extending to other units (for example, <math>\text{mm}^3</math> and <math>\text{km}^3</math>).</p> <p>Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.</p> <p><b>Ratio and Proportion</b> Solve problems involving the calculation of percentages and the use of percentages for comparison.</p> <p>Solve problems involving similar shapes where the scale factor is known or can be found.</p> <p>Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</p> <p><b>Statistics</b> Interpret and construct pie charts and line graphs and use these to solve problems.</p> <p>Calculate and interpret the mean as an average.</p> <p><b>Geometry – Position and Direction</b> Describe positions on the full coordinate grid (all four quadrants).</p> <p>Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.</p>	<p><b>Geometry – Properties of Shape</b> Draw 2-D shapes using given dimensions and angles.</p> <p>Recognise, describe and build simple 3-D shapes, including making nets.</p> <p>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius.</p> <p>Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</p> <p><b>Algebra</b> Use simple formulae. Generate and describe linear number sequences.</p> <p>Express missing number problems algebraically.</p> <p>Find pairs of numbers that satisfy an equation with two unknowns.</p> <p>Enumerate possibilities of combinations of two variables</p>	<p><b>Revision</b></p> <p><b>Number and Place Value</b> Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.</p> <p><b>Measurement</b> Solve problems involving converting between units of time.</p> <p>Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre)</p>	<p><b>Investigative Maths Projects</b></p> <p>Consolidation of prior learning</p> <p>Consolidation of calculations skills and using calculators</p> <p>Solving problems involving calculation and money</p> <p>Using maths in real-life contexts and developing reasoning skills</p>

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<p style="text-align: center;"><b>Year 5</b></p>	<p><b>Number and Place Value</b> Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.</p> <p>Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000.</p> <p>Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero.</p> <p>Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10 000 and 100 000.</p> <p>Solve number problems and practical problems that involve all of the above.</p> <p>Read, write, order and compare numbers with up to three decimal places. Round decimals with two decimal places to the nearest whole number and to one decimal place.</p> <p>Solve problems involving number up to three decimal places.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p>	<p><b>Number – Addition and Subtraction</b> Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction).</p> <p>Add and subtract numbers mentally with increasingly large numbers.</p> <p>Use rounding to check answers to calculations.</p> <p>Solve addition and subtraction multi-step problems in contexts.</p> <p><b>Number – Multiplication and Division</b> Multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers.</p> <p>Multiply and divide numbers mentally drawing upon known facts.</p> <p>Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context</p>	<p><b>Number – Multiplication and Division</b> Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</p> <p>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19.</p> <p>Recognise and use square numbers and cube numbers, and the notation for squared <sup>2</sup> and cubed <sup>3</sup></p> <p>Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes.</p> <p>Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.</p> <p><b>Number – Fractions (including decimals and percentages)</b> Compare and order fractions whose denominators are all multiples of the same number.</p> <p>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</p> <p>Add and subtract fractions with the same denominator and denominators that are multiples of the same number.</p> <p>Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.</p>	<p><b>Number – Fractions (including decimals and percentages)</b> Recognise mixed numbers and improper fractions and convert from one form to the other.</p> <p>Read and write decimal numbers as fractions.</p> <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</p> <p>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 100, and as a decimal.</p> <p>Solve problems which require knowing percentage and decimal equivalents.</p>	<p><b>Geometry – Properties of Shape</b> Identify 3-D shapes, including cubes and other cuboids, from 2-D representations.</p> <p>Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles.</p> <p>Draw given angles, and measure them in degrees °</p> <p>Identify: angles at a point and one whole turn (total 360°) angles at a point on a straight line and ½ a turn (total 180° ) other multiples of 90°</p> <p>Use the properties of rectangles to deduce related facts and find missing lengths and angles.</p> <p>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p> <p><b>Measurement</b> Estimate volume [for example, using 1 cm<sup>3</sup> blocks to build cuboids and capacity.</p> <p>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm<sup>2</sup>) and square metres (m<sup>2</sup>) and estimate the area of irregular shapes.</p> <p><b>Geometry – Position and Direction</b> 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.</p>	<p><b>Measurement</b> Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre).</p> <p>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</p> <p>Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres.</p> <p>Solve problems involving converting between units of time.</p> <p>Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.</p> <p><b>Statistics</b> Solve comparison, sum and difference problems using information presented in a line graph.</p> <p>Complete, read and interpret information in tables, including timetables.</p>
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<b>Year 4</b>	<p><b>Number and Place Value</b> Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones).</p> <p>Order and compare numbers beyond 1000.</p> <p>Identify, represent and estimate numbers using different representations.</p> <p>Round any number to the nearest 10, 100 or 1000.</p> <p><b>Number – Addition and Subtraction</b> Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction.</p> <p>Estimate and use inverse operations to check answers to a calculation.</p> <p>Solve addition and subtraction two-step problems in contexts.</p> <p><b>Number – Multiplication and Division</b> Identify and find factors and multiples.</p> <p>Recognise and use factor pairs and commutativity in mental calculations.</p>	<p><b>Number – Multiplication and Division</b> Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math>.</p> <p>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.</p> <p>Recognise and use factor pairs and commutativity in mental calculations.</p> <p>Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</p> <p><b>Statistics</b> Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts, line graphs.</p> <p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</p> <p><b>Geometry – Properties of Shape</b> Identify and draw Perpendicular and parallel lines.</p>	<p><b>Number – Fractions (including decimals)</b> Recognise and show, using diagrams, families of common equivalent fractions.</p> <p>Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.</p> <p>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.</p> <p>Add and subtract fractions with the same denominator</p> <p><b>Geometry – Properties of Shape</b> Identify acute and obtuse angles and compare and order angles up to two right angles by size</p>	<p><b>Number – Fractions (including decimals)</b> Recognise and write decimal equivalents of any number of tenths or hundredths.</p> <p>Recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math></p> <p>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 ones, tenths and hundredths.</p> <p>Round decimals with one decimal place to the nearest whole number.</p> <p>Compare numbers with the same number of decimal places up to two decimal places.</p> <p><b>Geometry – Properties of Shape</b> Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</p>	<p><b>Measurements</b> Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</p> <p>Find the area of rectilinear shapes by counting squares.</p> <p>Read, write and convert time between analogue and digital 12- and 24-hour clocks.</p> <p>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</p> <p>Solve simple measure and money problems involving fractions and decimals to two decimal places.</p>	<p><b>Geometry – Properties of Shape</b> Identify lines of symmetry in 2-D shapes presented in different orientations.</p> <p>Complete a simple symmetric figure with respect to a specific line of symmetry.</p> <p><b>Geometry – Position and Direction</b> Describe positions on a 2-D grid as coordinates in the first quadrant</p> <p>Describe movements between positions as translations of a given unit to the left/right and up/down</p> <p>Plot specified points and draw sides to complete a given polygon</p> <p><b>Number – Roman numerals</b> Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value</p>
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Year 3	<p><b>Adding and subtracting across 10</b></p> <ul style="list-style-type: none"> <li>• <b>2AS-1</b> Add and subtract across 10.</li> <li>• <b>3NF-1</b> Secure fluency in addition and subtraction facts that bridge 10, through continued practice.</li> <li>• 1.11 Addition and subtraction: bridging 10</li> </ul> <p><b>Numbers to 1,000</b></p> <ul style="list-style-type: none"> <li>• <b>3NPV-1</b> Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10.</li> <li>• <b>3NPV-2</b> Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning.</li> <li>• <b>3NPV-3</b> Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.</li> <li>• <b>3NPV-4</b> Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.</li> </ul>	<p><b>Numbers to 1000</b></p> <ul style="list-style-type: none"> <li>• <b>3AS-1</b> Calculate complements to 100.</li> <li>• <b>3NF-3</b> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).</li> <li>• 1.17 Composition and calculation: 100 and bridging 100</li> <li>• 1.18 Composition and calculation: three-digit numbers</li> </ul>	<p><b>Right angles</b></p> <ul style="list-style-type: none"> <li>• <b>3G-1</b> Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.</li> </ul> <p><b>Manipulating the additive relationship and securing mental calculation</b></p> <ul style="list-style-type: none"> <li>• <b>3AS-3</b> Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.</li> <li>• 1.19 Securing mental strategies: calculation up to 999</li> </ul>	<p><b>Column addition</b></p> <ul style="list-style-type: none"> <li>• <b>3AS-2</b> Add and subtract up to three-digit numbers using columnar methods.</li> <li>• 1.20 Algorithms: column addition</li> </ul> <p><b>2, 4, 8 times tables</b></p> <ul style="list-style-type: none"> <li>• <b>3MD-1</b> Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division.</li> <li>• <b>3NF-2</b> Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number.</li> <li>• <b>3NF-3</b> Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).</li> <li>• 2.7 Times tables: 2, 4 and 8, and the relationship between them</li> </ul> <p><b>Column subtraction</b></p> <ul style="list-style-type: none"> <li>• <b>3AS-2</b> Add and subtract up to three-digit numbers using columnar methods.</li> <li>• 1.21 Algorithms: column subtraction</li> </ul>	<p><b>Unit fractions</b></p> <ul style="list-style-type: none"> <li>• <b>3F-1</b> Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.</li> <li>• <b>3F-2</b> Find unit fractions of quantities using known division facts (multiplication tables fluency).</li> <li>• <b>3F-3</b> Reason about the location of any fraction within 1 in the linear number system.</li> <li>• 3.1 Preparing for fractions: the part-whole relationship</li> <li>• 3.2 Unit fractions: identifying, representing and comparing</li> </ul>	<p><b>Non-unit fractions</b></p> <ul style="list-style-type: none"> <li>• <b>3F-1</b> Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts.</li> <li>• <b>3F-3</b> Reason about the location of any fraction within 1 in the linear number system.</li> <li>• <b>3F-4</b> Add and subtract fractions with the same denominator, within 1.</li> <li>• 3.3 Non-unit fractions: identifying, representing and comparing</li> <li>• 3.4 Adding and subtracting within one whole</li> </ul> <p><b>Parallel and perpendicular sides in polygons</b></p> <ul style="list-style-type: none"> <li>• <b>3G-2</b> Draw polygons by joining marked points, and identify parallel and perpendicular sides.</li> </ul> <p><b>Time</b></p> <ul style="list-style-type: none"> <li>• <b>NC (statutory)</b> 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>• <b>NC (statutory)</b> estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight</li> <li>• <b>NC (statutory)</b> know the number of seconds in a minute and the number of days in each month, year and leap year</li> <li>• <b>NC (statutory)</b> compare durations of events [for example to calculate the time taken by particular events or tasks].</li> <li>• <b>NC (non-statutory)</b> Pupils use both analogue and digital 12-hour clocks and record their times. In this way they become fluent in and prepared for using digital 24-hour clocks in Year 4</li> </ul>
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<p>Year 2</p>	<p><b>Numbers 10 to 100</b></p> <ul style="list-style-type: none"> <li>• <b>2NPV-1</b> Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.</li> <li>• <b>2NPV-2</b> Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10.</li> <li>• 1.8 Composition of numbers: multiples of 10 up to 100</li> <li>• 1.9 Composition of numbers: 20–100</li> </ul> <p><b>Calculations within 20</b></p> <ul style="list-style-type: none"> <li>• <b>2AS-1</b> Add and subtract across 10.</li> <li>• <b>2AS-2</b> Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?".</li> <li>• 1.11 Addition and subtraction: bridging 10</li> <li>• 1.12 Subtraction as difference</li> </ul>	<p><b>Fluently add and subtract within 10</b></p> <ul style="list-style-type: none"> <li>• <b>2NF-1</b> Secure fluency in addition and subtraction facts within 10, through continued practice.</li> <li>• 1.7 Addition and subtraction: strategies within 10</li> </ul> <p><b>Addition and subtraction of two-digit numbers</b></p> <ul style="list-style-type: none"> <li>• <b>2AS-3</b> Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.</li> <li>• 1.13 Addition and subtraction: two-digit and single-digit numbers</li> <li>• 1.14 Addition and subtraction: two-digit numbers and multiples of ten</li> </ul> <p><b>Introduction to multiplication</b></p> <ul style="list-style-type: none"> <li>• <b>2MD-1</b> Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.</li> <li>• 2.2 Structures: multiplication representing equal groups</li> <li>• 2.3 Times tables: groups of 2 and commutativity (part 1)</li> <li>• 2.4 Times tables: groups of 10 and of 5, and factors of 0 and 1</li> <li>• 2.5 Commutativity (part 2), doubling and halving</li> </ul>	<p><b>Introduction to division structures</b></p> <ul style="list-style-type: none"> <li>• <b>2MD-2</b> Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).</li> <li>• 2.6 Structures: quotitive and partitive division</li> </ul>	<p><b>Shape</b></p> <ul style="list-style-type: none"> <li>• <b>2G-1</b> Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties.</li> </ul> <p><b>Addition and subtraction of two-digit numbers</b></p> <ul style="list-style-type: none"> <li>• <b>2AS-4</b> Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.</li> <li>• 1.15 Addition: two-digit and two-digit numbers</li> <li>• 1.16 Subtraction: two-digit and two-digit numbers</li> </ul>	<p><b>Money</b></p> <ul style="list-style-type: none"> <li>• <b>NC (statutory)</b> recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</li> <li>• <b>NC (statutory)</b> find different combinations of coins that equal the same amounts of money</li> <li>• <b>NC (statutory)</b> solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.</li> <li>• NC (non-statutory) Pupils become fluent in counting and recognising coins. They read and say amounts of money confidently and use the symbols £ and p accurately, recording pounds and pence separately.</li> </ul> <p><b>Fractions</b></p> <p>3.0 Guidance on the teaching of fractions in Key Stage 1</p> <p><b>Time</b></p> <ul style="list-style-type: none"> <li>• <b>NC (statutory)</b> compare and sequence intervals of time</li> <li>• <b>NC (statutory)</b> 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> <li>• <b>NC (statutory)</b> know the number of minutes in an hour and the number of hours in a day.</li> <li>• NC (non-statutory) Pupils use standard units of measurement with increasing accuracy, using their knowledge of the number system. They become fluent in telling the time on analogue clocks and recording it.</li> </ul> <p><b>Position and direction</b></p> <ul style="list-style-type: none"> <li>• <b>NC (statutory)</b> order and arrange combinations of mathematical objects in patterns and sequences</li> <li>• <b>NC (statutory)</b> use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).</li> <li>• NC (non-statutory) Pupils should work with patterns of shapes, including those in different orientations.</li> <li>• NC (non-statutory) Pupils use the concept and language of angles to describe 'turn' by applying rotations, including in practical contexts (for example, pupils themselves moving in turns, giving instructions to other pupils to do so, and programming robots)</li> </ul>	<p><b>Multiplication and division</b></p> <ul style="list-style-type: none"> <li>• 2.5 Commutativity (part 2), doubling and halving</li> <li>• 2.6 Structures: quotitive and partitive division</li> </ul> <p><b>Sense of measure – capacity, volume, mass</b></p> <ul style="list-style-type: none"> <li>• <b>NC (statutory)</b> choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels</li> <li>• <b>NC (statutory)</b> compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and = .</li> <li>• NC (non-statutory) Pupils use standard units of measurement with increasing accuracy, using their knowledge of the number system. They use the appropriate language and record using standard abbreviations.</li> <li>• NC (non-statutory) Comparing measures includes simple multiples such as 'half as high'; 'twice as wide'.</li> </ul>
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				using instructions given in right angles).		
	<p><b>Maths fluency (NCETM Mastering Number)</b></p> <ul style="list-style-type: none"> <li>opportunity to consolidate their understanding and recall of number bonds within 10</li> <li>re-cap the composition of the numbers 11 to 20</li> <li>reason about their position within the linear number system</li> </ul>	<p><b>Maths fluency (NCETM Mastering Number)</b></p> <ul style="list-style-type: none"> <li>have an opportunity to use their knowledge of the composition of numbers within 10 to calculate within 20</li> <li>explore the links between the numbers in the linear number system within 10 to numbers within 100, focusing on multiples of 10 and the midpoint of 50</li> </ul>	<p><b>Maths fluency (NCETM Mastering Number)</b></p> <ul style="list-style-type: none"> <li>opportunities to use their knowledge of the composition of numbers within 10 to calculate within 20</li> <li>reason about equations and inequalities</li> </ul>			
Year 1	<p><b>Previous Reception Experience and Counting Within 100</b></p> <ul style="list-style-type: none"> <li><b>1NPV-1</b> Count within 100, forwards and backwards, starting with any number</li> <li>1.9 Composition of numbers: 20–100</li> </ul>	<p><b>Comparison of Quantities and Part-Whole Relationship</b></p> <ul style="list-style-type: none"> <li><b>1NPV-1</b> Count within 100, forwards and backwards, starting with any number.</li> <li><b>1NPV-2</b> Reason about the location of numbers to 20 within the linear number system, including comparing using <math>&lt;</math> <math>&gt;</math> and <math>=</math></li> <li>Comparison of quantities and measures</li> <li>Introducing 'whole' and 'parts': part-part-whole</li> </ul> <p><b>Numbers 0 to 5</b></p> <ul style="list-style-type: none"> <li><b>1NPV-2</b> Reason about the location of numbers to 20 within the linear number system, including comparing using <math>&lt;</math> <math>&gt;</math> and <math>=</math>.</li> <li><b>1AS-1</b> Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.</li> <li>1.3 Composition of numbers: 0–5</li> </ul>	<p><b>Recognise, compose, decompose and manipulate 2D and 3D</b></p> <ul style="list-style-type: none"> <li><b>1G-1</b> Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.</li> <li><b>1G-2</b> Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations</li> </ul> <p><b>Numbers 0 to 10</b></p> <ul style="list-style-type: none"> <li><b>1NPV-2</b> Reason about the location of numbers to 20 within the linear number system, including comparing using <math>&lt;</math> <math>&gt;</math> and <math>=</math>.</li> <li><b>1AS-1</b> Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. 1.4 Composition of numbers: 6–10</li> </ul>	<p><b>Additive structures</b></p> <ul style="list-style-type: none"> <li><b>1AS-2</b> Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.</li> <li>1.5 Additive structures: introduction to aggregation and partitioning</li> <li>1.6 Additive structures: introduction to augmentation and reduction</li> </ul> <p><b>Addition and subtraction facts within 10</b></p> <ul style="list-style-type: none"> <li><b>1NF-1</b> Develop fluency in addition and subtraction facts within 10.</li> <li>1.7 Addition and subtraction: strategies within 10</li> </ul>	<p><b>Numbers 0 to 20</b></p> <ul style="list-style-type: none"> <li><b>1NPV-2</b> Reason about the location of numbers to 20 within the linear number system, including comparing using <math>&lt;</math> <math>&gt;</math> and <math>=</math>.</li> <li>1.10 Composition of numbers: 11–19</li> </ul> <p><b>Unitising and coin recognition</b></p> <ul style="list-style-type: none"> <li><b>1NF-2</b> Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.</li> <li>2.1 Counting, unitising and coins</li> </ul>	<p><b>Unitising and coin recognition</b></p> <ul style="list-style-type: none"> <li><b>1NF-2</b> Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.</li> <li>2.1 Counting, unitising and coins</li> </ul> <p><b>Position and direction</b></p> <ul style="list-style-type: none"> <li><b>NC (statutory)</b> describe position, direction and movement, including whole, half, quarter and three-quarter turns.</li> <li>NC (non-statutory) Pupils use the language of position, direction and motion, including left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.</li> <li>NC (non-statutory) Pupils make whole, half, quarter and three-quarter turns in both directions and connect turning clockwise with movement on a clock face.</li> </ul> <p><b>Time</b></p> <ul style="list-style-type: none"> <li><b>NC (statutory)</b> sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</li> <li><b>NC (statutory)</b> recognise and use language relating to dates, including days of the week, weeks, months and years</li> <li><b>NC (statutory)</b> 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>
	<p><b>Maths fluency (NCETM Mastering Number)</b></p> <ul style="list-style-type: none"> <li>consolidate the Early Learning Goals</li> <li>continue to explore the composition of numbers within 10, the position of these numbers in the linear number system</li> </ul>	<p><b>Maths fluency (NCETM Mastering Number)</b></p> <ul style="list-style-type: none"> <li>continue to explore the composition of numbers within 10</li> <li>explore addition and subtraction structures and the related language (without the use of symbols)</li> </ul>	<p><b>Maths fluency (NCETM Mastering Number)</b></p> <ul style="list-style-type: none"> <li>explore the composition of numbers within 20 and their position in the linear number system</li> <li>connect addition and subtraction expressions and equations to 'number stories')</li> </ul>			

# MATHS Subject Overview

EYFS	<p><b>Number</b></p> <ul style="list-style-type: none"> <li>Explore the composition of numbers 0 and 1</li> <li>Subitise quantities up to 3</li> </ul> <p><b>Numerical patterns</b></p> <ul style="list-style-type: none"> <li>Counting to 5 forwards and backwards</li> <li>Compare quantities up to 3</li> </ul> <p><b>Shape, space and measure</b></p> <ul style="list-style-type: none"> <li><b>FSC</b> Identifying circles and ovals in the environment and comparing properties</li> <li>Comparing size of objects</li> </ul>	<p><b>Number</b></p> <ul style="list-style-type: none"> <li>Explore the composition of numbers 2 and 3</li> <li>Subitise quantities up to 4</li> <li><b>FSNF</b> Recall number bonds up to 3</li> <li><b>FSAS</b> Compose and decompose numbers to 3 in two parts</li> </ul> <p><b>Numerical patterns</b></p> <ul style="list-style-type: none"> <li>Counting to 10 forwards and backwards</li> <li>Compare quantities up to 3</li> </ul> <p><b>Shape, space and measure</b></p> <ul style="list-style-type: none"> <li><b>FSG</b> Identifying triangles in the environment and comparing properties</li> <li>Identify and continue ABAB and ABC patterns</li> <li>Identify and match identical and non-identical pairs</li> <li>Explore and compare capacity and volume</li> </ul>	<p><b>Number</b></p> <ul style="list-style-type: none"> <li>Explore the composition of numbers 4 and 5</li> <li>Subitise quantities up to 5</li> <li><b>FSNF</b> Recall number bonds up to 5, including doubles within 5</li> <li><b>FSAS</b> Compose and decompose numbers to 5 in two parts</li> </ul> <p><b>Numerical patterns</b></p> <ul style="list-style-type: none"> <li><b>FSNPV</b> Counting to 20</li> <li>Compare quantities up to 5</li> </ul> <p><b>Shape, space and measure</b></p> <ul style="list-style-type: none"> <li><b>FSG</b> Identifying squares, rectangles and hexagons in the environment and comparing properties</li> <li>Identify and continue ABB and ABBC patterns</li> <li><b>FSC</b> Compose and decompose shapes and shape pictures and identify shapes within shape pictures</li> <li>Comparing and measuring mass</li> </ul>	<p><b>Number</b></p> <ul style="list-style-type: none"> <li>Explore the composition of numbers 6 and 7</li> <li><b>FSNF</b> Conceptually subitise quantities up to 7</li> <li><b>FSNF</b> Recall number bonds up to 7, including doubles within 7</li> <li><b>FSAS</b> Compose and decompose numbers to 7 in two parts</li> </ul> <p><b>Numerical patterns</b></p> <ul style="list-style-type: none"> <li><b>FSNPV</b> Counting to 50</li> <li>Compare quantities up to 10</li> <li>Comparing and identifying odd and even numbers</li> </ul> <p><b>Shape, space and measure</b></p> <ul style="list-style-type: none"> <li><b>FSG</b> Identifying 3D shapes in the environment and comparing properties</li> <li>Comparing and measuring mass</li> </ul>	<p><b>Number</b></p> <ul style="list-style-type: none"> <li>Explore the composition of numbers 8 and 9</li> <li><b>FSNF</b> Conceptually subitise quantities up to 9</li> <li><b>FSNF</b> Recall number bonds up to 9, including doubles within 9</li> <li><b>FSAS</b> Compose and decompose numbers to 9 in two parts</li> </ul> <p><b>Numerical patterns</b></p> <ul style="list-style-type: none"> <li><b>FSNPV</b> Counting to 50</li> <li>Compare quantities up to 15</li> <li>Comparing and identifying odd and even numbers</li> <li>Exploring the concept of equal sharing</li> </ul> <p><b>Shape, space and measure</b></p> <ul style="list-style-type: none"> <li><b>FSG</b> Identifying 3D shapes in the environment and comparing properties</li> <li>Comparing size</li> <li>Comparing and measuring length</li> </ul>	<p><b>Number</b></p> <ul style="list-style-type: none"> <li><b>FSNPV</b> Explore the composition of numbers 10 and above</li> <li><b>FSNF</b> Conceptually subitise quantities up to 10</li> <li><b>FSNF</b> Recall number bonds up to 10, including doubles within 10</li> <li><b>FSAS</b> Compose and decompose numbers to 10 in two parts</li> </ul> <p><b>Numerical patterns</b></p> <ul style="list-style-type: none"> <li><b>FSNPV</b> Counting to 100</li> <li>Compare quantities up to 20</li> <li>Comparing and identifying odd and even numbers</li> <li><b>FSMD</b> Exploring the concept of equal sharing</li> </ul> <p><b>Shape, space and measure</b></p> <ul style="list-style-type: none"> <li><b>FSG</b> Identifying 3D shapes in the environment and comparing properties</li> <li>Comparing and measuring height</li> <li>Exploring ordinal numbers</li> <li>Exploring concepts related to money</li> </ul>
	<p><b>Maths fluency (NCETM Mastering Number)</b></p> <ul style="list-style-type: none"> <li>build on previous experiences of number from their home and nursery environments</li> <li>further develop their subitising and counting skills</li> <li>explore the composition of numbers within 5 compare sets of objects and use the language of comparison</li> </ul>	<p><b>Maths fluency (NCETM Mastering Number)</b></p> <ul style="list-style-type: none"> <li>develop their subitising and counting skills</li> <li>explore the composition of numbers within and beyond 5</li> <li>identify when two sets are equal or unequal and connect two equal groups to doubles</li> <li>they will begin to connect quantities to numerals</li> </ul>	<p><b>Maths fluency (NCETM Mastering Number)</b></p> <ul style="list-style-type: none"> <li>pupils will consolidate their counting skills</li> <li>counting to larger numbers</li> <li>developing a wider range of counting strategies</li> <li>secure knowledge of number facts through varied practice</li> </ul>			