

# Maths Curriculum Overview



	Autumn	Spring	Summer
Nursery	Development Matters 22-36 months	Development Matters 22-36 months and 30-50 months	Development Matters 30-50 months
Reception	Development Matters 30-50 months and 40-60 months	Development Matters 40-60 months and ELG	Development Matters ELG

Year 1	<p><b>Number: Place value within 10 (4)</b></p> <ul style="list-style-type: none"><li>count to and across 10, forwards and backwards, beginning with 0 or 1, or from any given number</li><li>count, read and write numbers to 10 in numerals</li><li>given a number, identify 1 more and 1 less</li><li>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> <p><b>Number: Addition and Subtraction within 10 (4)</b></p> <ul style="list-style-type: none"><li>read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs</li><li>represent and use number bonds and related subtraction facts within 10</li><li>add and subtract one-digit and two-digit numbers to 10, including 0</li><li>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = ? - 9</math></li></ul> <p><b>Geometry: Shape (1)</b></p> <ul style="list-style-type: none"><li>recognise and name common 2-D and 3-D shapes, including:</li><li>2-D shapes [for example, rectangles (including squares), circles and triangles]</li><li>3-D shapes [for example, cuboids (including cubes), pyramids and spheres]</li></ul> <p><b>Number: Place Value within 20 (2)</b></p> <ul style="list-style-type: none"><li>count to and across 20, forwards and backwards, beginning with 0 or 1, or from any given number</li><li>count, read and write numbers to 20 in numerals</li><li>given a number, identify 1 more and 1 less</li><li>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>read and write numbers from 1 to 20 in numerals and words</li></ul>	<p><b>Number: Addition and Subtraction within 20 (4)</b></p> <ul style="list-style-type: none"><li>read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs</li><li>represent and use number bonds and related subtraction facts within 20</li><li>add and subtract one-digit and two-digit numbers to 20, including 0</li><li>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as <math>7 = ? - 9</math></li></ul> <p><b>Number: Place Value within 20 inc. multiples of 2, 5 and 10 (2)</b></p> <ul style="list-style-type: none"><li>count to and across 20, forwards and backwards, beginning with 0 or 1, or from any given number</li><li>count, read and write numbers to 20 in numerals; count in multiples of 2s, 5s and 10s</li><li>given a number, identify 1 more and 1 less</li><li>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>read and write numbers from 1 to 20 in numerals and words</li></ul> <p><b>Measurement: Length and Height (2)</b> Compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"><li>lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]</li></ul> <p>Measure and begin to record the following:</p> <ul style="list-style-type: none"><li>lengths and heights</li></ul> <p><b>Measurement: Weight and volume (2)</b> Compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"><li>mass/weight [for example, heavy/light, heavier than, lighter than]</li><li>capacity and volume [for example, full/empty, more than, less than, half, half full, quarter]</li></ul> <p>Measure and begin to record the following:</p> <ul style="list-style-type: none"><li>mass/weight</li><li>capacity and volume</li></ul>	<p><b>Number: Multiplication and division inc. reinforcement of multiples of 2, 5 and 10 (3)</b></p> <ul style="list-style-type: none"><li>count in multiples of 2s, 5s and 10s</li><li>solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher</li></ul> <p><b>Number: Fractions (2)</b></p> <ul style="list-style-type: none"><li>recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity</li><li>recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity</li></ul> <p><b>Geometry: Position and direction (1)</b></p> <ul style="list-style-type: none"><li>describe position, direction and movement, including whole, half, quarter and three-quarter turns</li></ul> <p><b>Number: Place value within 100 (2)</b></p> <ul style="list-style-type: none"><li>count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number</li><li>count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s</li><li>given a number, identify 1 more and 1 less</li><li>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> <p>count in multiples of 2s, 5s and 10s</p> <p><b>Measurement: Money (1)</b> Measure and begin to record the following:</p> <ul style="list-style-type: none"><li>recognise and know the value of different denominations of coins and notes</li></ul> <p><b>Measurement: Time (2)</b> Compare, describe and solve practical problems for:</p> <ul style="list-style-type: none"><li>time [for example, quicker, slower, earlier, later]</li></ul> <p>Measure and begin to record the following:</p> <ul style="list-style-type: none"><li>time (hours, minutes, seconds)</li><li>sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]</li><li>recognise and use language relating to dates, including days of the week, weeks, months and years</li><li>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>
Year 2	<p><b>Number: Place Value (3)</b></p> <ul style="list-style-type: none"><li>count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward</li><li>recognise the place value of each digit in a two-digit number (10s, 1s)</li><li>identify, represent and estimate numbers using different representations, including the number line</li><li>compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs</li><li>read and write numbers to at least 100 in numerals and in words</li><li>use place value and number facts to solve problems</li></ul>	<p><b>Number: Multiplication and division (2)</b></p> <ul style="list-style-type: none"><li>show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 number by another cannot</li><li>solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts</li></ul> <p><b>Statistics (2)</b></p> <ul style="list-style-type: none"><li>interpret and construct simple pictograms, tally charts, block diagrams and tables</li></ul>	<p><b>Geometry: Positon and direction (3)</b></p> <ul style="list-style-type: none"><li>order and arrange combinations of mathematical objects in patterns and sequences</li><li>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></ul> <p><b>Problem Solving and efficient methods (2)</b> <b>Measurement: Time (2)</b></p>

	<p><b>Number: Addition and subtraction (5)</b></p> <ul style="list-style-type: none"><li>• 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>• recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</li><li>• add and subtract numbers using concrete objects, pictorial representations, and mentally, including:<ul style="list-style-type: none"><li>• a two-digit number and 1s</li><li>• a two-digit number and 10s</li><li>• 2 two-digit numbers</li><li>• adding 3 one-digit numbers</li></ul></li><li>• show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot</li><li>• recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems</li></ul> <p><b>Measurement: Money (2)</b></p> <ul style="list-style-type: none"><li>• recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value</li><li>• find different combinations of coins that equal the same amounts of money</li><li>• solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</li></ul> <p><b>Number: Multiplication and division (2)</b></p> <ul style="list-style-type: none"><li>• recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers</li><li>• calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs</li></ul>	<ul style="list-style-type: none"><li>• ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity</li><li>• ask-and-answer questions about totalling and comparing categorical data</li></ul> <p><b>Geometry: properties of shapes (3)</b></p> <ul style="list-style-type: none"><li>• identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line</li><li>• identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces</li><li>• identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]</li><li>• compare and sort common 2-D and 3-D shapes and everyday objects</li></ul> <p><b>Number: Fractions (3)</b></p> <ul style="list-style-type: none"><li>• 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> of a length, shape, set of objects or quantity</li><li>• write simple fractions, for example <math>\frac{1}{2}</math> of 6 = 3 and recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math></li></ul> <p><b>Measurement: Length and height (1)</b></p> <ul style="list-style-type: none"><li>• 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>• compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =</li><li>•</li></ul>	<ul style="list-style-type: none"><li>• compare and sequence intervals of time</li><li>• 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>• know the number of minutes in an hour and the number of hours in a day</li></ul> <p><b>Measurement: Mass, capacity and temperature (3)</b></p> <ul style="list-style-type: none"><li>• 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>• compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =</li></ul> <p><b>Investigations (2)</b></p>
Year 3	<p><b>Number: Place Value (3)</b></p> <ul style="list-style-type: none"><li>• count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</li><li>• recognise the place value of each digit in a 3-digit number (100s, 10s, 1s)</li><li>• compare and order numbers up to 1,000</li><li>• identify, represent and estimate numbers using different representations</li><li>• read and write numbers up to 1,000 in numerals and in words</li><li>• solve number problems and practical problems involving these ideas</li></ul> <p><b>Number: Addition and subtraction (5)</b></p> <ul style="list-style-type: none"><li>• add and subtract numbers mentally, including:<ul style="list-style-type: none"><li>• a three-digit number and 1s</li><li>• a three-digit number and 10s</li><li>• a three-digit number and 100s</li></ul></li><li>• add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction</li><li>• estimate the answer to a calculation and use inverse operations to check answers</li><li>• solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</li></ul>	<p><b>Number: Multiplication and division (3)</b></p> <ul style="list-style-type: none"><li>• solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects</li></ul> <p><b>Measurement: Money (1)</b></p> <ul style="list-style-type: none"><li>• add and subtract amounts of money to give change, using both £ and p in practical contexts</li></ul> <p><b>Statistics (2)</b></p> <ul style="list-style-type: none"><li>• interpret and present data using bar charts, pictograms and tables</li><li>• solve one-step and two-step questions [for example ‘How many more?’ and ‘How many fewer?’] using information presented in scaled bar charts and pictograms and tables</li></ul> <p><b>Measurement: Length and height (3)</b></p> <ul style="list-style-type: none"><li>• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li><li>• measure the perimeter of simple 2-D shapes</li></ul> <p><b>Number: Fractions (2)</b></p> <ul style="list-style-type: none"><li>• 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></ul>	<p><b>Number: Fractions (3)</b></p> <ul style="list-style-type: none"><li>• recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators</li><li>• recognise and show, using diagrams, equivalent fractions with small denominators</li><li>• add and subtract fractions with the same denominator within one whole [for example, <math>\frac{5}{7} + \frac{1}{7} = \frac{6}{7}</math> ]</li><li>• compare and order unit fractions, and fractions with the same denominators</li><li>• solve problems that involve all of the above</li></ul> <p><b>Measurement: Time (3)</b></p> <ul style="list-style-type: none"><li>• tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks</li><li>• estimate 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, am/pm, morning, afternoon, noon and midnight</li><li>• know the number of seconds in a minute and the number of days in each month, year and leap year</li><li>• compare durations of events [for example, to calculate the time taken by particular events or tasks]</li></ul> <p><b>Geometry: Properties of shape (2)</b></p>

	<p><b>Number: Multiplication and division (3)</b></p> <ul style="list-style-type: none"><li>recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables</li><li>write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods</li></ul>	<ul style="list-style-type: none"><li>recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li><li></li></ul>	<ul style="list-style-type: none"><li>draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</li><li>recognise angles as a property of shape or a description of a turn</li><li>identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle</li><li>identify horizontal and vertical lines and pairs of perpendicular and parallel lines</li></ul> <p><b>Measurement: Mass and capacity (3)</b></p> <ul style="list-style-type: none"><li>measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)</li></ul>
Year 4	<p><b>Number: Place Value (4)</b></p> <ul style="list-style-type: none"><li>count in multiples of 6, 7, 9, 25 and 1,000</li><li>find 1,000 more or less than a given number</li><li>count backwards through 0 to include negative numbers</li><li>recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s)</li><li>order and compare numbers beyond 1,000</li><li>identify, represent and estimate numbers using different representations</li><li>round any number to the nearest 10, 100 or 1,000</li><li>solve number and practical problems that involve all of the above and with increasingly large positive numbers</li><li>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</li></ul> <p><b>Number: Addition and subtraction (3)</b></p> <ul style="list-style-type: none"><li>add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li><li>estimate and use inverse operations to check answers to a calculation</li><li>solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</li></ul> <p><b>Measurement: Length and Perimeter (1)</b></p> <ul style="list-style-type: none"><li>convert between different units of measure [for example, kilometre to metre; hour to minute]</li><li>measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres</li></ul> <p><b>Number: Multiplication and division (3)</b></p> <ul style="list-style-type: none"><li>recall multiplication and division facts for multiplication tables up to 12 × 12</li><li>use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers</li><li>recognise and use factor pairs and commutativity in mental calculations</li></ul>	<p><b>Number: Multiplication and division (3)</b></p> <ul style="list-style-type: none"><li>multiply two-digit and three-digit numbers by a one-digit number using formal written layout</li><li>solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</li></ul> <p><b>Measurement: Area (1)</b></p> <ul style="list-style-type: none"><li>convert between different units of measure [for example, kilometre to metre; hour to minute]</li><li>find the area of rectilinear shapes by counting squares</li></ul> <p><b>Number: Fractions (4)</b></p> <ul style="list-style-type: none"><li>recognise and show, using diagrams, families of common equivalent fractions</li><li>count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10</li><li>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>add and subtract fractions with the same denominator</li><li>recognise and write decimal equivalents of any number of tenths or hundreds</li></ul> <p><b>Number: Decimals (3)</b></p> <ul style="list-style-type: none"><li>recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math></li><li>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</li><li>round decimals with 1 decimal place to the nearest whole number</li></ul>	<p><b>Number: Decimals (2)</b></p> <ul style="list-style-type: none"><li>compare numbers with the same number of decimal places up to 2 decimal places</li><li>solve simple measure and money problems involving fractions and decimals to 2 decimal places</li></ul> <p><b>Measurement: Money (2)</b></p> <ul style="list-style-type: none"><li>estimate, compare and calculate different measures, including money in pounds and pence</li></ul> <p><b>Measurement: Time (1)</b></p> <ul style="list-style-type: none"><li>read, write and convert time between analogue and digital 12- and 24-hour clocks</li><li>solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days</li></ul> <p><b>Statistics (2)</b></p> <ul style="list-style-type: none"><li>interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs</li><li>solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</li></ul> <p><b>Geometry: Properties of shape (3)</b></p> <ul style="list-style-type: none"><li>compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes</li><li>identify acute and obtuse angles and compare and order angles up to 2 right angles by size</li><li>identify lines of symmetry in 2-D shapes presented in different orientations</li><li>complete a simple symmetric figure with respect to a specific line of symmetry</li></ul> <p><b>Geometry: Position and direction (1)</b></p> <ul style="list-style-type: none"><li>describe positions on a 2-D grid as coordinates in the first quadrant</li><li>describe movements between positions as translations of a given unit to the left/right and up/down</li><li>plot specified points and draw sides to complete a given polygon</li></ul>
Year 5	<p><b>Number: Place Value (3)</b></p> <ul style="list-style-type: none"><li>read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit</li><li>count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000</li></ul>	<p><b>Number: Multiplication and division (3)</b></p> <ul style="list-style-type: none"><li>multiply and divide numbers mentally, drawing upon known facts</li><li>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</li></ul>	<p><b>Number: Decimals (4)</b></p> <ul style="list-style-type: none"><li>read and write decimal numbers as fractions [for example, <math>0.71 = \frac{71}{100}</math>]</li><li>recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li></ul>



	<ul style="list-style-type: none"><li>interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0</li><li>round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000</li><li>solve number problems and practical problems that involve all of the above</li><li>read Roman numerals to 1,000 (M) and recognise years written in Roman numerals</li></ul> <p><b>Number: Addition and subtraction (2)</b></p> <ul style="list-style-type: none"><li>add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</li><li>add and subtract numbers mentally with increasingly large numbers</li><li>use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy</li><li>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</li></ul> <p><b>Statistics (2)</b></p> <ul style="list-style-type: none"><li>solve comparison, sum and difference problems using information presented in a line graph</li><li>complete, read and interpret information in tables, including timetables</li></ul> <p><b>Number: Multiplication and division (2)</b></p> <ul style="list-style-type: none"><li>identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers</li><li>know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers</li><li>establish whether a number up to 100 is prime and recall prime numbers up to 19</li><li>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</li></ul> <p><b>Measurement: Perimeter and area (2)</b></p> <ul style="list-style-type: none"><li>measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres</li><li>calculate and compare the area of rectangles (including squares), 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>	<ul style="list-style-type: none"><li>multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000</li><li>recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³)</li><li>solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes</li><li>solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</li><li>solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates</li></ul> <p><b>Number: Fractions (6)</b></p> <ul style="list-style-type: none"><li>compare and order fractions whose denominators are all multiples of the same number</li><li>identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths</li><li>recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements &gt; 1 as a mixed number [for example, <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}</math>]</li><li>add and subtract fractions with the same denominator, and denominators that are multiples of the same number</li><li>multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams</li></ul> <p><b>Number: Decimals and percentages (2)</b></p> <ul style="list-style-type: none"><li>read and write decimal numbers as fractions [for example, <math>0.71 = \frac{71}{100}</math>]</li><li>recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li><li>round decimals with 2 decimal places to the nearest whole number and to 1 decimal place</li><li>read, write, order and compare numbers with up to 3 decimal places</li><li>solve problems involving number up to 3 decimal places</li><li>recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100', and write percentages as a fraction with denominator 100, and as a decimal fraction</li><li>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{2}{5}</math>, <math>\frac{4}{5}</math> and those fractions with a denominator of a multiple of 10 or 25</li></ul>	<ul style="list-style-type: none"><li>round decimals with 2 decimal places to the nearest whole number and to 1 decimal place</li><li>read, write, order and compare numbers with up to 3 decimal places</li><li>solve problems involving number up to 3 decimal places</li></ul> <p><b>Geometry: Properties of shape (3)</b></p> <ul style="list-style-type: none"><li>identify 3-D shapes, including cubes and other cuboids, from 2-D representations</li><li>know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles</li><li>draw given angles, and measure them in degrees (°)</li><li>identify:<ul style="list-style-type: none"><li>angles at a point and 1 whole turn (total 360°)</li><li>angles at a point on a straight line and half a turn (total 180°)</li><li>other multiples of 90°</li></ul></li><li>use the properties of rectangles to deduce related facts and find missing lengths and angles</li><li>distinguish between regular and irregular polygons based on reasoning about equal sides and angles</li></ul> <p><b>Geometry: Position and direction (1)</b></p> <ul style="list-style-type: none"><li>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> <p><b>Measurement: Converting units (2)</b></p> <ul style="list-style-type: none"><li>convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre]</li><li>understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints</li></ul> <p><b>Measurement: Volume (1)</b></p> <ul style="list-style-type: none"><li>estimate volume [for example, using 1 cm<sup>3</sup> blocks to build cuboids (including cubes)] and capacity [for example, using water]</li><li>solve problems involving converting between units of time</li><li>use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling</li></ul>
Year 6	<p><b>Number: Place Value (2)</b></p> <ul style="list-style-type: none"><li>read, write, order and compare numbers up to 10,000,000 and determine the value of each digit</li><li>round any whole number to a required degree of accuracy</li><li>use negative numbers in context, and calculate intervals across 0</li><li>solve number and practical problems that involve all of the above</li></ul> <p><b>Number: Addition, subtraction, multiplication and division (4)</b></p> <ul style="list-style-type: none"><li>multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication</li><li>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, as appropriate for the context</li><li>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</li></ul>	<p><b>Number: Decimals (2)</b></p> <ul style="list-style-type: none"><li>associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, <math>\frac{3}{8}</math>]</li><li>identify the value of each digit in numbers given to 3 decimal places and multiply and divide numbers by 10, 100 and 1,000 giving answers up to 3 decimal places</li><li>multiply one-digit numbers with up to 2 decimal places by whole numbers</li><li>use written division methods in cases where the answer has up to 2 decimal places</li><li>solve problems which require answers to be rounded to specified degrees of accuracy</li></ul> <p><b>Number: Percentages (2)</b></p> <ul style="list-style-type: none"><li>recall and use equivalences between simple fractions, decimals and percentages, including in different contexts</li></ul>	<p><b>Geometry: Properties of shape (2)</b></p> <ul style="list-style-type: none"><li>draw 2-D shapes using given dimensions and angles</li><li>recognise, describe and build simple 3-D shapes, including making nets</li><li>compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons</li><li>illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius</li><li>recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles</li></ul> <p><b>Problem solving (3)</b></p> <p><b>Statistics (2)</b></p> <ul style="list-style-type: none"><li>interpret and construct pie charts and line graphs and use these to solve problems</li></ul>

	<ul style="list-style-type: none"><li>perform mental calculations, including with mixed operations and large numbers</li><li>identify common factors, common multiples and prime numbers</li><li>use their knowledge of the order of operations to carry out calculations involving the 4 operations</li><li>solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</li><li>solve problems involving addition, subtraction, multiplication and division</li><li>use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</li></ul> <p><b>Number: Fractions (4)</b></p> <ul style="list-style-type: none"><li>use common factors to simplify fractions; use common multiples to express fractions in the same denomination</li><li>compare and order fractions, including fractions &gt;1</li><li>add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions</li><li>multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, <math>\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}</math> ]</li><li>divide proper fractions by whole numbers [for example, <math>\frac{1}{3} \div 2 = \frac{1}{6}</math> ]</li></ul> <p><b>Geometry: Position and direction (1)</b></p> <ul style="list-style-type: none"><li>describe positions on the full coordinate grid (all 4 quadrants)</li><li>draw and translate simple shapes on the coordinate plane, and reflect them in the axes</li></ul>	<p><b>Number: Algebra (2)</b></p> <ul style="list-style-type: none"><li>use simple formulae</li><li>generate and describe linear number sequences</li><li>express missing number problems algebraically</li><li>find pairs of numbers that satisfy an equation with 2 unknowns</li><li>enumerate possibilities of combinations of 2 variables</li></ul> <p><b>Measurement: Converting units (1)</b></p> <ul style="list-style-type: none"><li>solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate</li><li>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 3 decimal places</li><li>convert between miles and kilometres</li></ul> <p><b>Measurement: Perimeter, area and volume (2)</b></p> <ul style="list-style-type: none"><li>recognise that shapes with the same areas can have different perimeters and vice versa</li><li>recognise when it is possible to use formulae for area and volume of shapes</li><li>calculate the area of parallelograms and triangles</li><li>calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm<sup>3</sup>) and cubic metres (m<sup>3</sup>), and extending to other units [for example, mm<sup>3</sup> and km<sup>3</sup>]</li></ul> <p><b>Number: Ratio (2)</b></p> <ul style="list-style-type: none"><li>solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts</li><li>solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison</li><li>solve problems involving similar shapes where the scale factor is known or can be found</li><li>solve problems involving unequal sharing and grouping using knowledge of fractions and multiples</li></ul>	<ul style="list-style-type: none"><li>calculate and interpret the mean as an average</li></ul> <p><b>Investigations (4)</b></p>
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