



## Whole-School Curriculum Progression Map~ Maths



Programme of study	EYFS	KS1 Statutory Curriculum Guidance Non-Statutory Curriculum Guidance Teacher Assessment Framework		KS2 Statutory Curriculum Guidance Non-Statutory Curriculum Guidance	
		Year 1	Year 2	Year 3	Year 4
<b>Mathematical Vocabulary</b>					
Mathematical Vocabulary		To read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at year 1.	To read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.	To read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.	To read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.
<b>Number and Place value</b>					
Counting	<p>To say the number names to 10 in order. To count forwards and backwards to 20 and beyond.</p> <p><b>ELG - Numerical Patterns</b> Verbally count beyond 20, recognising the pattern of the counting system.</p>	<p>To count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. To identify one more and one less than a given number. <i>To count in multiples of twos, fives and tens from different multiples to develop their recognition of patterns in the number system, including varied and frequent practice through increasingly complex questions.</i></p>	<p>To count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.</p>	<p><i>To continue to count in ones, tens and hundreds, so that pupils become fluent in the order and place value of numbers to 1000.</i> To count from 0 in multiples of 4, 8, 50 and 100.</p>	<p><i>To count in tens and hundreds, and maintain fluency in other multiples through varied and frequent practice.</i> To count in multiples of 6, 7, 9, 25 and 1000. To count backwards through zero to include negative numbers. To find 1000 more or less than a given number.</p>
Identifying, Representing and Estimating Numbers	<p>To subitise. To know that the word 'more' indicates that the group is getting larger. To know that the word 'less' indicates that a group is getting smaller.</p> <p><b>ELG - Number</b> Subitise (recognise quantities without counting) up to 5.</p>				

<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Reading and Writing Numbers</p>	<p>To recognise numbers to 5, then 10. To be able to recognise numbers to 10, then when possible 20. To write numbers to 10, forming some of them correctly.</p> <p><b><u>ELG - Number</u></b> Have a deep understanding of number to 10, including the composition of each number.</p>	<p>To read and write numbers from 1 to 20 in numerals and words. To count, read and write numbers to 100 in numerals.</p>	<p>To read and write numbers to at least 100 in numerals and in words.</p>	<p>To read and write numbers up to 1000 in numerals and in words.</p>	
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Compare and Order Numbers</p>	<p>To be able to order numbers to 10, then when possible 20. To know the difference between odd and even. To know that the word 'more' indicates that the group is getting larger. To know that the word 'less' indicates that a group is getting smaller.</p> <p><b><u>ELG - Number</u></b> Have a deep understanding of number to 10, including the composition of each number.</p> <p><b><u>ELG - Numerical Patterns</u></b> Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.</p> <p>Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p>		<p>To compare and order numbers from 0 up to 100; use &lt;, &gt; and = signs.</p>	<p>To compare and order numbers up to 1000.</p>	<p>To order and compare numbers beyond 1000.</p>

Understanding Place Value	<p>To know that the word 'more' indicates that the group is getting larger. To know that the word 'less' indicates that a group is getting smaller.</p> <p><b><u>ELG - Number</u></b> Have a deep understanding of number to 10, including the composition of each number.</p> <p><b><u>ELG - Numerical Patterns</u></b> Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p>		<p>To recognise the place value of each digit in a two-digit number (tens, ones) to become fluent and apply their knowledge of numbers to reason with, discuss and solve problems. To begin to understand zero as a place holder.</p>	<p>To recognise the place value of each digit in a three-digit number (hundreds, tens, ones) and apply partitioning related to place value using varied and increasingly complex problems, building on work in year 2 (for example, <math>146 = 100 + 40</math> and <math>6</math>, <math>146 = 130 + 16</math>).</p>	<p>To recognise the place value of each digit in a four-digit number. To begin to extend their knowledge of the number system to include the decimal numbers and fractions that they have met so far.</p>
Rounding					<p>To round any number to the nearest 10, 100 or 1000.  To connect estimation and rounding numbers to the use of measuring instruments.</p>
Roman Numerals					<p>To read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.</p>
Solve Problems		<p>To practise ordinal numbers and solve simple concrete problems.</p>	<p>To use place value and number facts to solve related problems to develop fluency.</p>	<p>To solve number problems and practical problems involving these ideas.</p>	<p>To solve number and practical problems that involve all of the above and with increasingly large positive numbers.</p>

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<b>Addition and Subtraction</b>					
Mental Calculations	<p>To recall one more/less than numbers to 10, then 20.</p> <p>To know that addition involves combining two or more groups of objects.</p> <p>To know that subtraction involves removing an object from a group.</p> <p><b>ELG - Number</b> Subitise (recognise quantities without counting) up to 5.</p> <p><b>ELG - Numerical Patterns</b> Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p>	<p>To add and subtract one-digit and two-digit numbers to 20, including zero.</p> <p><i>To realise the effect of adding or subtracting zero.</i></p>	<p><i>To extend the language of addition and subtraction to include sum and difference.</i></p> <p>To show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.</p> <p><i>To add and subtract numbers using an efficient strategy, explaining their method verbally using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones, a two-digit number and tens, two two-digit numbers, add three one-digit numbers.</i></p>	<p>To add and subtract numbers mentally, including: two-digit numbers, where the answers could exceed 100, a three-digit number and ones, a three-digit number and tens and a three-digit number and hundreds.</p>	<p><i>To continue to practise both mental methods and columnar addition and subtraction with increasingly large numbers to aid fluency.</i></p>
Number Bonds	<p>To know many number bonds to 10.</p> <p><b>ELG - Number</b> Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.</p>	<p>To memorise, represent and use number bonds and related subtraction facts within 20.</p>	<p><i>To recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships.</i></p> <p>To recall and use addition and subtraction facts to 20 to become fluent in deriving associative facts (e.g. <math>10 - 7 = 3</math>, <math>100 - 70 = 30</math>) and derive and use related facts up to 100.</p>		
Written Calculations	<p>To use a number line to help solve simple addition and subtraction number problems.</p>	<p>To read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs.</p>	<p><i>To begin to record addition and subtraction in columns to support place value and prepare for formal written methods with larger numbers.</i></p>	<p><i>To use the understanding of place value and partitioning to enable adding and subtracting numbers with up to three digits, using formal written methods of columnar addition and subtraction to become fluent.</i></p>	<p>To add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate.</p>

Inverse Operations, Estimating and			To recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	To estimate the answer to a calculation and use inverse operations to check answers.	To estimate and use inverse operations to check answers to a calculation.
Order of Operations	<b>POS begins in upper KS2</b>				
Solve Problems	To know that addition and subtraction problems can be solved by counting forwards or backwards on a number line.	To discuss and solve one-step problems ( <i>in familiar practical contexts</i> ) that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems. <i>Problems include the terms: put together, add, altogether, total, take away, distance between, difference between, more than and less than, so that pupils develop the concept of addition and subtraction and are able to use these operations flexibly.</i>	To solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures applying their increasing knowledge of mental and written methods.		

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<b>Multiplication and Division</b>					
Mental Calculations	<p>To know some doubles facts by heart.</p> <p><b>ELG - Number</b> Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.</p> <p><b>ELG - Numerical Patterns</b> Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p>		<p>To begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations. To begin to relate multiplication and division facts to fractions and measures (e.g., <math>40 \div 2 = 20</math>, 20 is a half of 40). To show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot, to develop multiplicative reasoning.</p>	<p>To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using efficient mental methods, for example, using commutativity and associativity, and progressing to formal reliable written methods of short multiplication and division.</p>	<p>To combine their knowledge of number facts and rules of arithmetic to solve mental and written calculations, e.g. <math>2 \times 6 \times 5 = 10 \times 6 = 60</math>.</p> <p>To practise mental methods and extend this to three-digit numbers to derive associative facts, (e.g. <math>600 \div 3 = 200</math> can be derived from <math>2 \times 3 = 6</math>).</p> <p>To recognise and use factor pairs and commutativity in mental calculations.</p> <p>To use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers.</p>
Multiplication and Division Facts	<p>To know some doubles facts by heart.</p> <p><b>ELG - Number</b> Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.</p> <p><b>ELG - Numerical Patterns</b> Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</p>	<p>To make connections between arrays, number patterns, and counting in twos, fives and tens. Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities.</p>	<p>To use a variety of language to describe multiplication and division. To count from 0 in multiples of 4, 8, 50 and 100. To recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers and use them to solve simple problems, demonstrating an understanding of commutativity as necessary. To connect the 10 multiplication table to place value, and the 5 multiplication table to the divisions on the clock face.</p>	<p>To recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables when they are calculating mathematical statements in order to improve fluency. To connect the 2, 4 and 8 multiplication tables through doubling.</p>	<p>To recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math> to aid fluency.</p> <p>To write statements about the equality of expressions (for example, use the distributive law <math>39 \times 7 = 30 \times 7 + 9 \times 7</math> and associative law <math>(2 \times 3) \times 4 = 2 \times (3 \times 4)</math>).</p>

Written Calculation			<p>To calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (<math>\times</math>), division (<math>\div</math>) and equals (=) signs.</p> <p><i>To begin to use other multiplication tables and recall multiplication facts, including using related division facts to perform written and mental calculations.</i></p>	<p>To write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using <i>efficient mental methods</i>, for example, using <i>commutativity</i> and <i>associativity</i>, and progressing to formal <i>reliable</i> written methods of short multiplication and division. (included in mental calculation section)</p>	<p>To multiply two-digit and three-digit numbers by a one-digit number using the formal written layout of <i>short multiplication with exact answers</i>.</p> <p><i>To become fluent in the formal written method of short division with exact answers.</i></p>
	Properties of Numbers	POS begins in upper KS2			
	Order of Operations	POS begins in upper KS2			
Solve Problems		<p>To 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.</p>	<p>To solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.</p>	<p>To solve <i>simple</i> problems in contexts, <i>deciding which of the four operations to use and why</i>. These include missing number problems, involving multiplication and division, including <i>measuring</i> and positive integer scaling problems and correspondence problems in which <i>n</i> objects are connected to <i>m</i> objects.</p>	<p>To solve two-step problems in contexts involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one digit, integer scaling problems and harder correspondence problems, such as <i>n</i> objects are connected to <i>m</i> objects.</p>

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<b>Fractions and decimals</b>					
Counting			To count in fractions up to 10, starting from any number and using the $\frac{1}{2}$ and $\frac{2}{4}$ equivalence on the number line.	To count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by ten.	To count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.
Recognising, Finding and Naming Fractions	To know that halving means splitting a quantity in two and doubling means having two quantities of the same amounts. To know that sharing equally means everyone will have the same amount.  <b>ELG - Numerical Patterns</b> <b>Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.</b>	To recognise, find and name a half as one of two equal parts of an object, shape or quantity by solving problems. To recognise, find and name a quarter as one of four equal parts of an object, shape or quantity by solving problems. To connect halves and quarters to the equal sharing and grouping of sets of objects and to measures, as well as recognising and combining halves and quarters as parts of a whole.	To recognise, find, name, identify and write fractions $\frac{1}{3}$ , $\frac{1}{4}$ , $\frac{2}{4}$ , $\frac{1}{2}$ and $\frac{3}{4}$ of a length, number, shape, set of objects or quantity and know that all parts must be equal parts of the whole.  To connect unit fractions to equal sharing and grouping, to numbers when they can be calculated, and to measures, finding fractions of lengths, quantities, sets of objects or shapes. They meet $\frac{3}{4}$ as the first example of a non-unit fraction.	To understand the relation between unit fractions as operators (fractions of), and division by integers. To recognise, understand and use fractions as numbers: unit fractions and non-unit fractions with small denominators as numbers on the number line (going beyond 0 - 1 and relating this to measure), and deduce relations between them, such as size and equivalence.  To recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	To make connections between fractions of a length, of a shape and as a representation of one whole or set of quantities. To know that decimals and fractions are different ways of expressing numbers and proportions. To understand the relation between non-unit fractions and multiplication and division of quantities, with particular emphasis on tenths and hundredths.
Comparing and Ordering Fractions				To compare and order unit fractions, and fractions with the same denominators.	
Adding and Subtracting Fractions				To add and subtract fractions with the same denominator within one whole through a variety of increasingly complex problems to improve fluency.	To add and subtract fractions with the same denominator to become fluent through a variety of increasingly complex problems beyond one whole.
Multiplying and Dividing Fractions	POS begins in upper KS2				

Equivalence			To write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence $\frac{2}{4}$ and $\frac{1}{2}$ .	To recognise and show, using diagrams, equivalent fractions with small denominators.	<p>To use factors and multiples to recognise equivalent fractions and simplify where appropriate.</p> <p>To recognise and show, using diagrams, families of common equivalent fractions.</p> <p>To recognise and write decimal equivalents of any number of tenths or hundredths.</p> <p>To recognise and write decimal equivalents to <math>\frac{1}{4}</math>, <math>\frac{1}{2}</math>, <math>\frac{3}{4}</math>.</p>
Comparing and Ordering Decimals					<p>To learn decimal notation and the language associated with it, including in the context of measurements.</p> <p>To represent numbers with one or two decimal places in several ways, such as on number lines.</p> <p>To compare numbers, amounts and quantities with the same number of decimal places up to two decimal places.</p>
Rounding Decimals					To round decimals with one decimal place to the nearest whole number.
Adding and Subtracting Decimals					
Multiplying and Dividing Decimals					To find the effect of dividing a one or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.
Multiplying and Dividing Decimals	POS begins in upper KS2				

Solve Problems				To solve problems that involve all of the above.	To solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. To solve simple measure and money problems involving fractions and decimals to two decimal places.
Algebra	POS begins in upper KS2				

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<b>Measurement</b>					
Describe, Measure, Compare and Solve (All Strands)	<i>To know that length, weight and capacity can be measured using non-standard/standard units.</i>	<p>To compare, describe and solve practical problems for: lengths and heights, mass/weight, capacity and volume, time.</p> <p>To measure and begin to record the following: lengths and heights, mass/weight, capacity and volume, time.</p> <p><i>To move from using and comparing different types of quantities and measures using non-standard units, including discrete (for example, counting) and continuous (for example, liquid) measurement, to using manageable common standard units using measuring tools, such as a ruler, weighing scales and containers.</i></p>	<p>To choose and use appropriate standard units with increasing accuracy using their knowledge of the number system 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.</p> <p><i>To use the appropriate language and record using standard abbreviations.</i></p> <p>To compare and order lengths, mass, volume/capacity and record the results using &gt;, &lt; and =.</p> <p><i>To compare measures including simple multiples such as 'half as high'; 'twice as wide'.</i></p>	To measure using the appropriate tools and units, compare (including simple scaling by integers) add and subtract using mixed units: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml).	To estimate, compare and calculate different measures, including money in pounds and pence.
Converting Units of Measure (All Strands)					<p><i>To use multiplication to convert from larger to smaller units.</i></p> <p>To convert between different units of measure and build on their understanding of place value and decimal notation to record metric measures, including money.</p>

Telling the Time	<p><i>To say the days of the week in order.</i></p> <p><i>To begin to say the months of the year in order.</i></p> <p><i>To know that the long hand represents the minutes and the short hand represents hours.</i></p>	<p>To sequence events in chronological order using language.</p> <p>To recognise and use language relating to dates, including days of the week, weeks, months and years.</p> <p>To tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.</p>	<p>To <b>read</b>, tell and write the time to five minutes, <b>including quarter past/to the hour/half hour</b> and draw the hands on a clock face to show these times.</p> <p><i>To become fluent in telling the time on analogue clocks and recording it.</i></p> <p>To know the number of minutes in an hour and the number of hours in a day.</p> <p>To compare and sequence intervals of time.</p>	<p>To tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.</p> <p><i>To begin to use digital 12-hour clocks and record their times in preparation for using digital 24-hour clocks in year 4.</i></p> <p>To estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours.</p> <p>To use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight.</p> <p>To know the number of seconds in a minute and the number of days in each month, year and leap year.</p> <p>To compare durations of events.</p>	<p>To read, write and convert time between analogue and digital 12- and 24-hour clocks.</p> <p>To solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</p>
Money	<p><i>To know that money can be used to buy items.</i></p>	<p>To recognise and know the value of different denominations of coins and notes.</p>	<p><i>To become fluent in counting and recognising coins.</i></p> <p>To recognise and use symbols for pounds (£) and pence (p) accurately, recording pounds and pence separately; combine amounts to make a particular value.</p> <p>To find and <b>use different combinations of coins that equal the same amounts of money.</b></p> <p>To solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.</p>	<p><i>To become fluent in recognising the value of coins.</i></p> <p>To add and subtract manageable amounts of money, including mixed units, to give change, using both £ and p in practical contexts.</p>	
Perimeter, Area and Volume				<p>To measure the perimeter of simple 2D shapes.</p>	<p>To measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</p> <p><i>To know perimeter can be expressed algebraically as <math>2(a + b)</math> where <math>a</math> and <math>b</math> are the dimensions in the same unit.</i></p> <p>To find the area of rectilinear shapes by counting squares.</p> <p><i>To relate area to arrays and multiplication.</i></p>

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<b>Properties of shape</b>					
Recognise 2D and 3D Shapes and Their Properties	<i>To know the names of some 2D/3D shapes. To know that 2D shapes can have sides and corners. To know that 3D shapes can have vertices, edges and faces.</i>	To recognise, handle and name common 2D and 3D shapes in different orientations/sizes and relate everyday objects fluently. To recognise that rectangles, triangles, cuboids and pyramids are not always similar to each other.	<i>Pupils read and write names for shapes that are appropriate for their word reading and spelling. To handle, identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line. To handle, identify and describe the properties of 3D shapes, including the number of edges, vertices and faces. To identify 2D shapes on the surface of 3D shapes.</i>	<i>To describe the properties of 2D and 3D shapes using accurate language. To extend knowledge of the properties of shapes is extended at this stage to symmetrical and non-symmetrical polygon and polyhedron. To recognise 3D shapes in different orientations and describe them.</i>	To identify lines of symmetry in 2D shapes presented in different orientations. <i>To recognise line symmetry in a variety of diagrams, including where the line of symmetry does not dissect the original shape.</i>
Compare and Classify Shapes			<i>To identify, compare and sort common 2D and 3D shapes and everyday objects on the basis of their properties and use vocabulary precisely.</i>		<i>To compare lengths and angles to decide if a polygon is regular or irregular. To compare and classify geometric shapes, including different quadrilaterals and triangles, based on their properties and sizes.</i>
Drawing 2D Shapes and Constructing 3D Shapes	<i>To know shapes can be composed and decomposed. To know shapes can be rotated and manipulated. To point out shapes they see within shapes.</i>		<i>Pupils draw lines and shapes using a straight edge.</i>	<i>To connect decimals and rounding to drawing and measuring straight lines in centimetres, in a variety of contexts. To identify horizontal and vertical lines and pairs of perpendicular and parallel lines. To draw 2D shapes and make 3D shapes using modelling materials.</i>	To draw with increasing accuracy and develop mathematical reasoning to analyse shapes and their properties and confidently describe the relationships between them. To complete a simple symmetric figure with respect to a specific line of symmetry.

Angles				<p>To recognise angles as a property of shape or a description of a turn.          To identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn          To identify whether angles are greater than or less than a right angle.</p>	<p>To identify acute and obtuse angles and compare and order angles up to two right angles by size <i>in preparation for using a protractor.</i></p>
Position, Direction and Movement	<p><i>To understand and use a range of prepositions in everyday contexts.</i></p>	<p>To describe position, direction and movement, including whole, half, quarter and three-quarter turns <i>in both directions and connect clockwise with the movement on a clock face.</i>  <i>To 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.</i></p>	<p>To 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 anticlockwise).</p>		<p>To describe positions on a 2D grid as coordinates in the first quadrant.  <i>To draw a pair of axes in one quadrant, with equal scales and integer labels.</i>  <i>To read, write and use pairs of coordinates, including using coordinate plotting ICT tools.</i>          To plot specified points and draw sides to complete a given polygon.          To describe movements between positions as translations of a given unit to the left/right and up/down.</p>
Patterns	<p><i>To know that patterns are repeated designs.</i></p>		<p>To order and arrange combinations of mathematical objects and shapes, <i>including those in different orientations</i>, in patterns and sequences.</p>		

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<b>Statistics</b>					
Record, Present and Interpret Data			<p>To record, interpret, collate, organise and compare information.</p> <p>To interpret and construct simple pictograms, tally charts, block diagrams and simple tables (e.g. many-to-one correspondence in pictograms with simple ratios 2, 5, 10 scales).</p> <p>To ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p> <p>To ask and answer questions about totalling and comparing categorical data.</p>	To interpret and present data using bar charts, pictograms and tables and use simple scales with increasing accuracy.	<p>To understand and use a greater range of scales in data representations.</p> <p>To interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</p>
Solve Problems				To solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables.	To solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
Ratio and Proportion					