



St Mary's Catholic Primary School and Nursery

Progression of Maths Knowledge Skills and Concepts

	Nursery	Reception	Year 1	Year 2	End of Key Stage 1
Place Value	<p>Begins to say numbers in order, some of which are in the right order (ordinality).</p> <p>In everyday situations, takes or gives two or three objects from a group.</p> <p>Beginning to notice numerals (number symbols).</p> <p>Beginning to count on their fingers.</p> <p>Joins in and anticipates repeated sound and action patterns.</p> <p>Is interested in what happens next using the pattern of everyday routines.</p>	<p>Verbally count beyond 20, recognising the pattern of the counting system.</p> <p>Subitise (recognise quantities without counting) up to 5.</p> <p>Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as another quantity.</p>	<p>Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.</p> <p>Count numbers to 100 in numerals; count in multiples of twos, fives and tens.</p> <p>Identify and represent numbers using objects and pictorial representation.</p> <p>Read and write numbers to 100 in numerals.</p> <p>Read and write numbers from 1 to 20 in numerals and words.</p> <p>Given a number, identify one more and one less.</p>	<p>Count in steps of 2, 3 and 5 from – and in tens from any number, forward and backward.</p> <p>Read and write numbers to at least 100 in numerals and in words.</p> <p>Identify, represent and estimate numbers using different representations, including the number line.</p> <p>Recognise the place value of each digit in a two-digit number (tens, ones).</p> <p>Compare and order numbers from 0 up to 100; use <, > and = signs.</p> <p>Use place value and number facts to solve problems.</p>	<p>The principal focus of mathematics teaching in key stage 1 is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value.</p> <p>This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools].</p> <p>At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary.</p> <p>Teaching should also involve using a range of measures to describe and compare</p>



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Addition and subtraction	Beginning to compare and recognise changes in numbers of things, using words like more, lots or 'same'.	Have a deep understanding of numbers to 10, including the composition of each number. Automatically recall (without reference to rhymes, counting or other aids) number bonds/subtraction facts to 5 and some number bonds to 10, including double facts.	Read, write and interpret mathematical statements involving addition (+), subtraction (-), and equals (=) signs. Represent and use number bonds and related subtraction facts within 20. Add and subtract one-digit and two-digit numbers to 20, including zero. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as: $7 = _ - 9$.	Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: -A two-digit number and ones. -A two-digit number and tens	different quantities such as length, mass, capacity/volume, time and money. By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.
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				<ul style="list-style-type: none">-Two two-digit numbers.-Adding three one-digit numbers. <p>Solve problems with addition and subtraction:</p> <ul style="list-style-type: none">-Using concrete objects and pictorial representations, including those involving numbers, quantities and measure. <p>Applying their increasing knowledge of mental and written methods.</p>	
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Multiplication and division		Explore and represent patterns within numbers up to 10, including evens and odds, double facts.	Solve one-step problems involving multiplication and division, by calculation the answer using concrete objects, pictorial representations and arrays with the support of the teacher.	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (\times), division (\div) and equals ($=$) signs. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and	
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				multiplication and division facts, including problems in contexts.	
Fractions		Explore and represent how quantities can be distributed equally.	Recognise, find and name a half as one of two equal parts of an object, shape or quantity. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity.	Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{3}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity. Recognise the equivalents of $\frac{2}{4}$ and $\frac{1}{2}$. Write simple fractions for example, $\frac{1}{2}$ of 6 = 3.	
Algebra			Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as: $7 = _ - 9$.	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	Note – although algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Y1/2/3.



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Measurement	<p>Explores differences in size, length, weight and capacity.</p> <p>Beginning to understand some talk about immediate past and future.</p> <p>Beginning to anticipate times of the day such as mealtimes or home time.</p>	<p>Recognise when one quantity is greater than, less than or the same as the other quantity.</p>	<p>Compare, describe and solve practical problems for:</p> <ul style="list-style-type: none">-Lengths and heights (for example, long / short, longer / shorter, tall / short, double / half);-Mass / weight (for example, heavy / light, heavier than, lighter than);-Capacity and volume (for example, full / empty, more than, less than, half, half full, quarter);-Time (for example quicker, slower, earlier, later). <p>Measure and begin to record the following:</p> <ul style="list-style-type: none">-Lengths and heights;-Mass / weight;-Capacity and volume;-Time (hours, minutes, seconds). <p>Recognise and know the value of different denominations of coins and notes.</p>	<p>Choose and use appropriate standard units to estimate and measure length / height in any direction (m / cm); mass (kg / g); temperature ($^{\circ}$c); capacity (litres / ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.</p> <p>Compare and order lengths, mass, volume / capacity and record the results using $<$, $>$ and $=$.</p> <p>Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.</p> <p>Find different combinations of coins that equal the same amounts of money.</p>	
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			<p>Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening).</p> <p>Recognise and use language relating to dates, including days of the week, weeks, months and years.</p> <p>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>Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.</p> <p>Compare and sequence intervals of time.</p> <p>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.</p> <p>Know the number of minutes in an hour and the number of hours in a day.</p>	
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Geometry	<p>Chooses puzzle pieces and tries to fit them in.</p> <p>Recognises that two objects have the same shape.</p> <p>Makes simple constructions.</p>	<p>Compare quantities up to 10 in different contexts. E.g. how many sides a shape has.</p>	<p>Recognise and name common 2D shapes (for example, rectangles including squares, circles and triangles)</p> <p>Recognise and name common 3D shapes (for examples cuboids including cubes, pyramids and spheres).</p> <p>Describe position, direction and movement, including whole, half, quarter and three-quarter turn.</p>	<p>Identify and describe the properties of 2D shapes, including the number of sides and line of symmetry in a vertical line.</p> <p>Identify 2D shapes on the surface of 3D shapes, (for example a circle on a cylinder and a triangle on a pyramid).</p> <p>Compare and sort common 2D shapes and everyday objects.</p> <p>Recognise and name common 3D shapes (for example, cuboids including cubes, pyramids and spheres).</p> <p>Compare and sort common 3D shapes and everyday objects.</p> <p>Order and arrange combinations of</p>	
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				<p>mathematical objects in patterns and sequences.</p> <p>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).</p> <p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p> <p>Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.</p> <p>Ask and answer questions about totalling and</p>	
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				comparing categorical data.	
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	Year 3	Year 4	Year 5	Year 6	End of Key Stage 2
Place Value	<p>Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number.</p> <p>Identify, represent and estimate numbers using different representations.</p> <p>Read and write numbers up to 1000 in numerals and in words.</p> <p>Recognise the place value of each digit in a three-digit number (hundreds, tens, ones).</p> <p>Compare and order numbers up to 1000.</p> <p>Solve number problems and practical problems involving these ideas.</p> <p>Estimate the answer to a calculation and use inverse operations to</p>	<p>Count in multiples of 6, 7, 9, 25 and 1000.</p> <p>Count backwards through zero to include negative numbers.</p> <p>Identify, represent and estimate numbers using different representations.</p> <p>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> <p>Find 1000 more or less than a given number.</p> <p>Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, one).</p> <p>Order and compare</p>	<p>Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.</p> <p>Count forwards and backwards with positive and negative whole numbers, including through zero.</p> <p>Read, write, (order and compare) numbers to at least 1,000,000 and determine the value of each digit.</p> <p>Read Roman Numerals to 1000 (M) and recognise years written in Roman numerals.</p> <p>(Read, Write) order and compare numbers to at least 1,000,000 and determine the value of each digit.</p> <p>Interpret negative numbers</p>	<p>Read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit.</p> <p>(Read, Write) order and compare numbers up to 10,000,000 and determine the value of each digit.</p> <p>Round any whole number to a required degree of accuracy.</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>The principal focus of mathematics teaching in lower key stage 2 is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value.</p> <p>This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers.</p> <p>At this stage, pupils should develop their ability to solve a range of problems, including with simple fractions and decimal place value.</p> <p>Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties,</p>



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	check answers.	numbers beyond 1000. Round any number to the nearest 10, 100 or 1000.	in context.		and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number.
Addition and subtraction	<p>Add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> -A three-digit number and ones. -A three-digit number and tens. -A three-digit number and hundreds. <p>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.</p> <p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p>	<p>Estimate and use inverse operations to check answers to a calculation.</p> <p>Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate.</p> <p>Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.</p>	<p>Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.</p> <p>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>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p>	<p>Perform mental calculations, including with mixed operations and large numbers.</p> <p>Use higher knowledge of the order of operations to carry out calculations involving the four operations.</p> <p>Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.</p>	<p>By the end of year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work.</p> <p>Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.</p> <p>The principal focus of mathematics teaching in upper key stage 2 is to ensure that pupils extend their understanding of the number system and place value to include larger integers.</p>



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			Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.		This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio.
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<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Multiplication and Division</p>	<p>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</p>	<p>Recall multiplication and division facts for multiplication tables up to 12×12.</p>	<p>Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers.</p>	<p>Identify common factors, common multiples and prime numberse.</p>	<p>At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation.</p>
	<p>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.</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 3 numbers.</p>	<p>Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers.</p>	<p>Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy .</p>	<p>With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems.</p>
	<p>Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems, and correspondence problems which n objects are connected to m objects.</p>	<p>Recognise and use factor pairs and commutativity in mental calculations.</p>	<p>Establish whether a number up to 100 is prime and recall prime numbers up to 19 Recognise and use square numbers and cube numers, and the notation for squared (²) and cubed (³).</p>	<p>Multiply multi-digit numbers up to 4 digits by a two-diti whole number using the formal written method of long multiplication.</p>	<p>Teaching in geometry and measures should consolidate and extend knowledge developed in number.</p>
		<p>Multiply two-digit and three-digit numbers by a one-digit number using formal written layout.</p>	<p>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>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.</p>	<p>Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them.</p>
		<p>Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit,</p>			



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		<p>integer scaling problems and harder correspondence problems such as n objects are connected to m objects.</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 witten method of short division and interpret remainders appropriately for the context.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p> <p>Solve problems involving multiplication and division including using their knowledge of factors and multoples, squares and cubes.</p> <p>Solve problems involving multiplication and division, including scaling by simple fraction</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>Perform mental calculations, including with mixed operations and large numbers.</p> <p>Solve problems involving addition, subtraction, multiplication and division.</p>	<p>By the end of year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages.</p> <p>Pupils should read, spell and pronounce mathematical vocabulary correctly.</p>
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			and problems involving rates.		
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Fractions	<p>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.</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>Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.</p>	<p>Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.</p>	
	<p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</p>	<p>Recognise and show, using diagrams, families of common equivalent fractions.</p>	<p>Recognised mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number (for example, $\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1\frac{1}{5}$).</p>	<p>Compare and order fractions including fractions >1.</p>	
	<p>Recognise and use fractions as numbers; unit fractions and non-unit fractions with small denominators.</p>	<p>Add and subtract fractions with the same denominator.</p>	<p>Compare and order fractions whose denominators are all multiples of the same number.</p>	<p>Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.</p>	
	<p>Recognise and show, using diagrams, equivalent fractions with small denominators.</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 and denominators that are multiples of the same number.</p>	<p>Multiply simple pairs of proper fractions, writing the answer in its simplest form (for example, $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$).</p>	
	<p>Compare and order unit fractions, and fractions with the same</p>		<p>Multiply proper fractions and mixed numbers by</p>	<p>Divide proper fractions by whole numbers (for example, $\frac{1}{3} \div 2 = \frac{1}{6}$).</p>	



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	<p>denominators.</p> <p>Add and subtract fractions with the same denominator within one whole.</p> <p>Solve problems that involve all of the above.</p>		<p>whole numbers, supported by materials and diagrams.</p>		
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Decimals	Recognise and write decimal equivalents of any number of tenths or hundredths.	Read and write decimal numbers as fractions (for example, $0.71 = \frac{71}{100}$).	Identify the value of each digit in numbers given to three decimal places.
	Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$.	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalent.	Multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places.
	Round decimals with one decimal place to the nearest whole number.	Round decimals with two decimal places to the nearest whole number and to one decimal place.	Multiply one-digit numbers with up to two decimal places by whole numbers.
	Compare numbers with the same number of decimal places up to two decimal places.	Read, write, order and compare numbers with up to three decimal places.	Use written division methods in cases where the answer has up to two decimal places.
	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.	Solve problems involving numbers up to three decimal places.	Solve problems which require answers to be rounded to specified degrees of accuracy.



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Fractions, decimals & Percentages		Solve simple measure and money problems involving fractions and decimals to two decimal places.	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. Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.	Associate a fraction with division and calculate decimal fraction equivalents (for example, 0.375) for a simple fraction (for example, $\frac{3}{8}$). Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.	
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Ratio & Proportion				<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>Solve problems involving the calculation of percentages (for example, of measure, and such as 15% of 360) 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</p>	
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				using knowledge of fractions and multiples.	
Algebra	Solve problems including missing number problems.			Use simple formulae. Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables.	Note – although algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the 'missing number' objectives from Y1 / 2 / 3.



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Measurement	<p>Measure, compare, add and subtract: lengths (m / cm / mm); mass (kg / g); volume / capacity (l / ml).</p>	<p>Convert between different units of measure (for example, kilometre to metre; hour to minute).</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>Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate.</p>	
	<p>Add and subtract amounts of money to give change, using both £ and p in practical contexts.</p>	<p>Estimate, compare and calculate different measures, including money in pounds and pence.</p>	<p>Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints.</p>	<p>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 up to three decimal places.</p>	
	<p>Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour to 24-hour clocks.</p>	<p>Read, write and convert time between analogue and digital 12- and 24-hour clocks.</p>	<p>Use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation, including scaling.</p>	<p>Convert between miles and kilometres.</p>	
	<p>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.</p>	<p>Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.</p> <p>Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.</p>	<p>Use all four operations to solve problems involving measure (for example, money).</p>	<p>Use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa.</p>	



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<p>Know the number of seconds in a minute and the number of days in each month, year and leap year.</p> <p>Compare durations of events (for example to calculate the time taken by particular events or tasks).</p> <p>Measure the perimeter of simple 2D shapes.</p>	<p>Find the area of rectilinear shapes by counting squares.</p>	<p>Solve problems involving converting between units of time.</p> <p>Measure and calculate the perimeter of composite rectilinear shapes in centimeters and metres.</p> <p>Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm²) and square metres (m²) and estimate the area of irregular shapes.</p> <p>Estimate volume (for example, using 1 cm³ blocks to build cuboids [including cubes]) and capacity (for example, using water).</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 centimeters (cm³) and cubic metres (m³), and extending to other units (for examples, mm³ and km³).</p>	
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Geometry	<p>Draw 2D shapes.</p> <p>Make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them.</p> <p>Recognise angles as a property of shape or a description of a turn.</p> <p>Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four make a complete turn; identify whether angles are greater than or less than a right angle.</p> <p>Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.</p>	<p>Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.</p> <p>Identify lines of symmetry in 2D shapes presented in different Orientations.</p> <p>Identify acute and obtuse angles and compare and order angles up to two right angles by size.</p> <p>Complete a simple symmetric figure with respect to a specific line of symmetry.</p> <p>Describe positions on a 2D grid as coordinates in the first quadrant.</p> <p>Describe movements between positions as translations of a given</p>	<p>Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.</p> <p>Use the properties of rectangles to deduce related facts and find missing lengths and angles.</p> <p>Identify 3D shapes, including cubes and other cuboids, from 2D 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 (turn 360°). -Angles at a point on a straight line and $\frac{1}{2}$ a turn (total 180°).</p>	<p>Draw 2D shapes using given dimensions and angles.</p> <p>Compare and classify geometric shapes based on their properties and sizes.</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, describe and build simple 3D shapes, including making nets.</p> <p>Find unknown angles in any triangles, quadrilaterals, and regular polygons.</p> <p>Recognise angles where they meet at a point, are on a straight line, or are</p>	



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Progression of Maths Knowledge Skills and Concepts

		<p>unit to the left / right and up / down.</p> <p>Plot specified points and draw sides to complete a given polygon.</p>	<p>-Other multiples of 90°.</p> <p>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>vertically opposite, and find missing angles.</p> <p>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>	
Statistics	<p>Interpret and present data using bar charts, pictograms and tables.</p> <p>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.</p>	<p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</p> <p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.</p>	<p>Complete, read and interpret information in tables, including timetables.</p> <p>Solve comparison, sum and difference problems using information presented in a line graph.</p>	<p>Interpret and construct pie charts and lines graphs and use these to solve problems.</p> <p>Calculate and interpret the mean as an average.</p>	