

April 2019: A bespoke maths curriculum will be delivered using the National Curriculum (see below) to build on children's prior knowledge, address misconceptions and meet individual needs.

	Y1	Y2	Y3	Y4	Y5	Y6
Number and place value	<ul style="list-style-type: none"> α read and write numbers from 1 to 20 in numerals and words. α given a number, identify one more and one less α count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number 	<ul style="list-style-type: none"> α count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward α recognise the place value of each digit in a two-digit number (tens, ones) α read and write numbers to at least 100 in numerals and in words α compare and order numbers from 0 up to 100; use <, > and = signs 	<ul style="list-style-type: none"> α read and write numbers up to 1000 in numerals and in words α recognise the place value of each digit in a three-digit number α count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number 	<ul style="list-style-type: none"> α count in multiples of 6, 7, 9, 25 and 1000 find 1000 more or less than a given number α count backwards through zero to include negative numbers α round any number to the nearest 10, 100 or 1000 α 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. 	<ul style="list-style-type: none"> α read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit α read Roman numerals to 1000 (M) and recognise years written in Roman numerals. α round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000 α interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero 	<ul style="list-style-type: none"> α solve number and practical problems that involve all of the above.
Addition and subtraction	<ul style="list-style-type: none"> α represent and use number bonds and related subtraction facts within 20 α add and subtract one-digit and two-digit numbers to 20, including zero 	<ul style="list-style-type: none"> α recall and use addition and subtraction facts to 20 and derive and use related facts up to 100 α add and subtract one and 2 digit numbers using concrete objects, pictorial representations, hundreds squares, number lines and mentally 	<ul style="list-style-type: none"> α add 2 and 3 digit numbers using partitioning α add and subtract numbers with up to three digits, using formal written methods of column addition and subtraction 	<ul style="list-style-type: none"> α add and subtract numbers with up to 4 digits using the formal written methods of column addition and subtraction where appropriate 	<ul style="list-style-type: none"> α add and subtract whole numbers with more than 4 digits, including using formal written methods (column addition and subtraction) 	<ul style="list-style-type: none"> α add and subtract whole numbers and decimals with more than 4 digits, including using formal written methods (column addition and subtraction)

<p>Multiplication and division</p>	<p>α 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>α recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers α solve multiplication and division calculations using arrays, repeated addition and subtraction, mental methods, and multiplication and division facts</p>	<p>α recall and use multiplication and division facts for the 3, 4, 6 and 8 multiplication tables α Solve multiplication and division calculations using the multiplication tables that they know, including for two-digit numbers times one-digit numbers progressing to formal written methods i.e. grid method for multiplication and the inverse for division</p>	<p>α recall multiplication and division facts for multiplication tables up to 12×12 α multiply two-digit and three-digit numbers by a one-digit number using the formal method of short multiplication α divide two and three-digit numbers by a one-digit number using the formal written method of short division</p>	<p>α identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. α know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers α multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication α divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately i.e. as an integer or decimal</p>	<p>α perform mental calculations, including with mixed operations and large numbers α identify common factors, common multiples, prime numbers and square numbers α multiply multi-digit numbers and decimals by a two-digit whole number or decimal using the formal written method of long multiplication α divide multi-digit numbers and decimals by an integer using the formal written method of short division interpreting remainders according to the context α divide multi-digit numbers and decimals by a two-digit whole number or decimal using the formal written method of long division, and interpret remainders as whole number remainders, decimals or fractions</p>
------------------------------------	---	---	---	---	---	--

<p>Fractions, decimals and percentages</p>	<ul style="list-style-type: none"> α recognise, find and name a half and a quarter of an object, shape or quantity 	<ul style="list-style-type: none"> α recognise, find, name and write fractions $1/3$, $1/4$, $2/4$ and $3/4$ of a length, shape, set of objects or quantity α write simple fractions for example, $1/2$ of 6 = 3 and recognise the equivalence of $2/4$ and $1/2$. 	<ul style="list-style-type: none"> α find fractions of amounts where the numerator is one or more with small denominators α recognise and show, using diagrams, equivalent fractions with small denominators α add and subtract fractions with the same denominator (i.e. $5/7 + 1/7 = 6/7$) α compare and order unit fractions, and fractions with the same denominators 	<ul style="list-style-type: none"> α solve problems involving increasingly harder fractions to calculate quantities, including non-unit fractions where the answer is a whole number α recognise and convert between mixed number and improper fractions α recognise and write decimal equivalents to $1/4$, $1/2$, $3/4$ α compare decimals and round to one decimal place 	<ul style="list-style-type: none"> α compare and order fractions whose denominators are all multiples of the same number α show fractions in their simplest form α read and write decimal numbers as fractions (for example, $0.71 = 71/100$) α convert between fractions and decimals α 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 α find simple percentages of amounts 	<ul style="list-style-type: none"> α add, subtract, multiply and divide fractions with different denominators and mixed numbers, showing their answers in their simplest form α recall and use equivalences between simple fractions, decimals and percentages, including in different contexts. α convert between fractions, decimals and percentages α find fractions of amounts using the unitary method (find 1%) α calculate percentage increases and decreases α apply understanding in context
<p>Ratio, proportion and algebra</p>					<ul style="list-style-type: none"> α understand ratio and proportion α recognise proportionality in contexts when the relations between quantities are in the same ratio e.g. recipes α use symbols and variables to represent variables and unknowns e.g. missing numbers, lengths and co-ordinates 	<ul style="list-style-type: none"> α scale quantities up and down α solve problems involving unequal quantities e.g. 'for every egg you need three spoonful's of flour' α generate and solve linear equations α Find pairs of numbers that satisfy an equation with 2 unknowns

<p>Measure</p>	<ul style="list-style-type: none"> ▫ measure and record lengths, heights, mass/weight, capacity, volume and time ▫ compare, describe and solve practical problems ▫ recognise and know the value of different coins and notes ▫ sequence events in chronological order ▫ recognise and use language relating to dates ▫ tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. 	<ul style="list-style-type: none"> ▫ choose and use appropriate units to estimate and measure lengths, heights, mass/weight, capacity, volume and time ▫ 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. ▫ know the number of minutes in an hour and the number of hours in a day. ▫ recognise and use symbols for pounds (£) and pence (p) 	<ul style="list-style-type: none"> ▫ add and subtract amounts of money to give change ▫ estimate and read time with increasing accuracy to the nearest minute ▫ tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks ▫ measure the perimeter of simple 2-D shapes 	<ul style="list-style-type: none"> ▫ convert between different units of measure ▫ solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. ▫ read, write and convert time between analogue and digital 12 and 24-hour clocks ▫ find the area of shapes by counting squares 	<ul style="list-style-type: none"> ▫ estimate volume measure and calculate the perimeter of compound shapes ▫ calculate and compare the area of rectangles using standard units, centimetre squares and metre squares ▫ estimate the area of irregular shapes ▫ understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints 	<ul style="list-style-type: none"> ▫ recognise when it is possible to use formulae for area and volume of shapes ▫ calculate the area of parallelograms and triangles ▫ calculate the area and circumference of circles ▫ recognise that shapes with the same areas can have different perimeters and vice versa ▫ convert between miles and kilometres
<p>Geometry - shape</p>	<ul style="list-style-type: none"> ▫ recognise and name common 2-D and 3-D shapes 	<ul style="list-style-type: none"> ▫ identify and describe the properties of 2-D shapes, including the number of sides and symmetry in a vertical line ▫ identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces ▫ identify 2-D shapes on the surface of 3-D shapes 	<ul style="list-style-type: none"> ▫ draw 2-D shapes and make 3-D shapes using modelling materials ▫ recognise angles as a property of shape or a description of a turn ▫ identify right angles ▫ identify horizontal and vertical lines and pairs of perpendicular and parallel lines. 	<ul style="list-style-type: none"> ▫ compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes ▫ identify acute and obtuse angles and compare and order angles up to two right angles by size ▫ identify lines of symmetry in 2-D shapes presented in different orientations 	<ul style="list-style-type: none"> ▫ identify 3-D shapes, including cubes and other cuboids, from 2-D representations ▫ know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles ▫ draw given angles, and measure them in degrees ▫ calculate missing lengths and angles ▫ distinguish between regular and irregular polygons 	<ul style="list-style-type: none"> ▫ draw 2-D shapes using given dimensions and angles ▫ draw and make nets ▫ compare shapes and find unknown angles in triangles, quadrilaterals and regular polygons ▫ illustrate and name parts of circles, including radius, diameter and circumference ▫ recognise angles at a point, on a straight line, vertically opposite, and find missing angles

<p>Geometry - position and direction</p>	<p>α describe position, direction and movement, including whole, half, quarter and three-quarter turns.</p>	<p>α use mathematical vocabulary to describe position, direction and 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>α describe positions on a 2-D grid as coordinates in the first quadrant</p>	<p>α describe positions on a 2-D grid as coordinates in the first and second quadrant α identify, describe and represent the position of a shape following a reflection or translation and know that the shape has not changed.</p>	<p>α describe positions on the full coordinate grid (all four quadrants) α draw and translate simple shapes on the coordinate plane, and reflect them in the axes α rotate shapes around a vertex and a fixed point</p>
<p>Statistics</p>		<p>α interpret and construct simple pictograms, tally charts, block diagrams and simple tables α ask and answer simple questions by counting the number of objects in each category and calculate totals</p>	<p>α interpret and present data using bar charts, pictograms and tables α solve one-step and two-step questions [for example 'How many more?' and 'How many fewer?']</p>	<p>α interpret and present discrete and continuous data including bar charts and line graphs α compare information presented in bar charts, pictograms, tables and other graphs</p>	<p>α compare information presented in a line graph α complete, read and interpret information in tables, including timetables α identify the median, mode and range</p>	<p>α interpret and construct pie charts and line graphs and use these to solve problems α calculate and interpret the mean as an average</p>