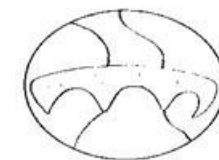


# Stanbridge Lower School

## Maths Skills Progression Map



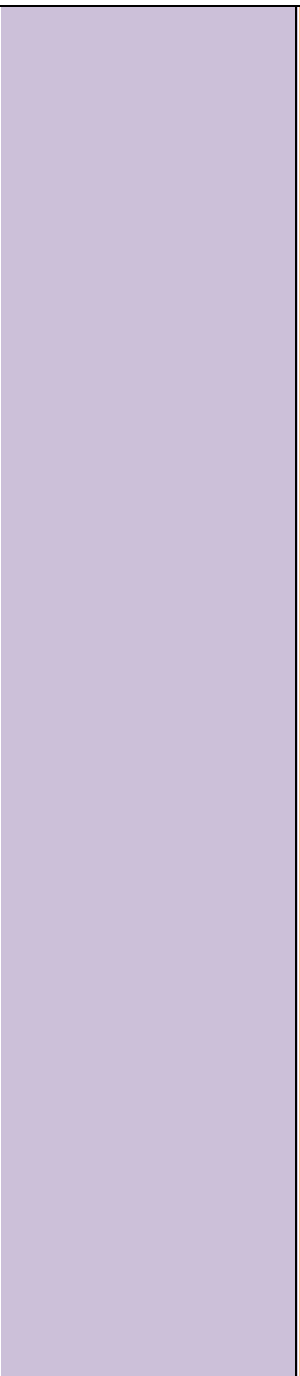
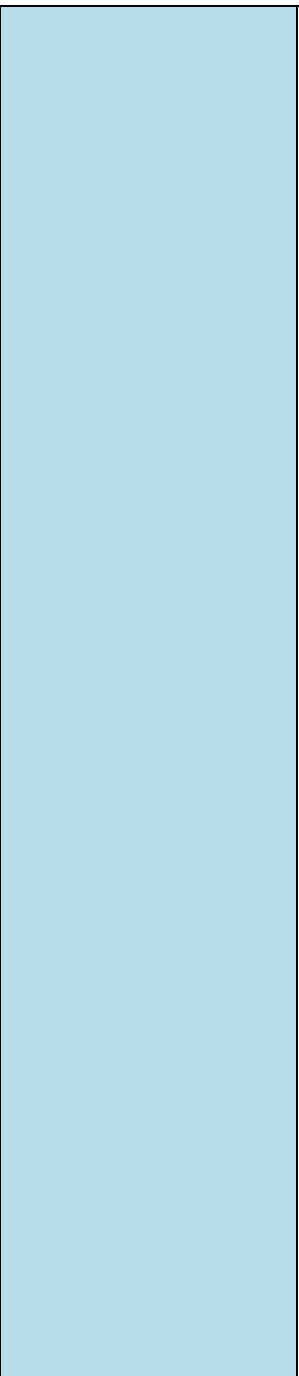
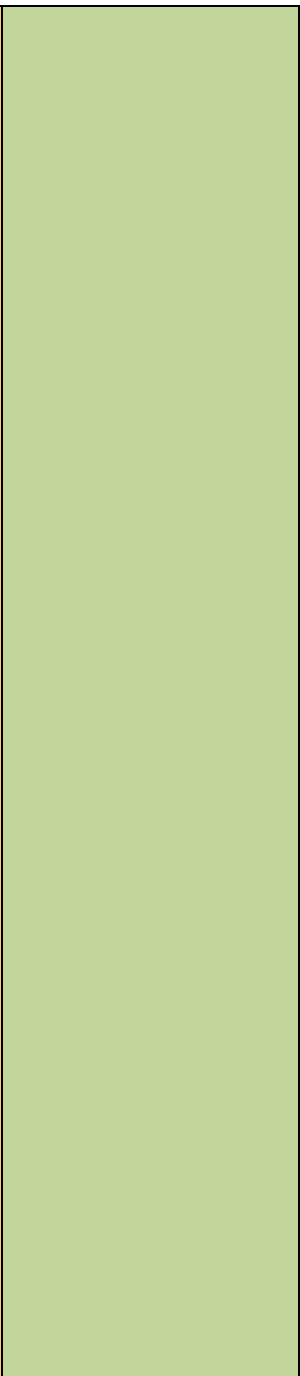
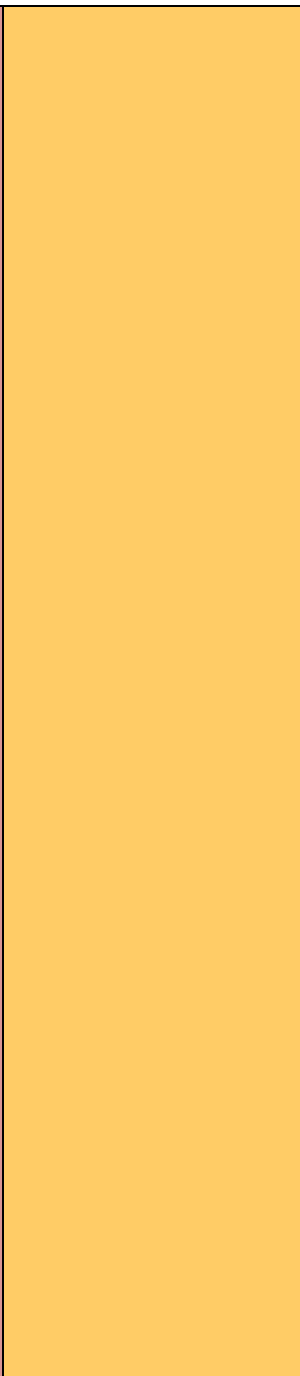
The table below shows the skills to be covered in each year group. For EYFS, 3-4 and Rec indicate the development statements from the 2021 Development Matters document 3 and 4-year olds and children in Reception respectively, and broadly sets out children’s development at these ages, although it is not intended as a tick list of objectives. ELG indicates the Early Learning Goal. For Key Stages 1 and 2, the objectives are taken from the National Curriculum 2014.

Number and Place Value						
EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• 3-4: Recite numbers past 5</li> <li>• 3-4: Say one number for each item in order: 1, 2, 3, 4, 5</li> <li>• 3-4: Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle')</li> <li>• 3-4: Develop fast recognition of up to 3 objects, without having to count them individually ('subitising')</li> <li>• 3-4: Show "finger numbers" up to 5</li> </ul>	<ul style="list-style-type: none"> <li>• Count to an across 100, forwards and backwards, beginning with 0 or 1, or from any given number</li> <li>• Count numbers to 100 in numerals; count in multiples of twos, fives and tens</li> <li>• Identify and represent numbers using objects and pictorial representations</li> <li>• Read and write numbers to 100 in numerals</li> <li>• Read and write numbers from 1 to 20 in numerals and</li> </ul>	<ul style="list-style-type: none"> <li>• Count in steps of 2,3, and 5 from 0, and in tens from any number, forward and backward</li> <li>• Read and write numbers to at least 100 in numerals and in words</li> <li>• Identify, represent and estimate numbers using different representations, including the number line</li> <li>• Recognise the place value of each digit in a two-digit number (tens, ones)</li> <li>• Compare and order</li> </ul>	<ul style="list-style-type: none"> <li>• Count on from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number</li> <li>• Identify, represent and estimate numbers using different representations</li> <li>• Read and write numbers up to 1000 in numerals and words</li> <li>• Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)</li> <li>• Compare and order numbers to 1000</li> </ul>	<ul style="list-style-type: none"> <li>• Count in multiples of 6, 7, 9, 25 and 1000</li> <li>• Count backwards through zero to include negative numbers</li> <li>• Identify, represent and estimate numbers using different representations</li> <li>• 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</li> <li>• Find 1000 more or less than a given</li> </ul>	<ul style="list-style-type: none"> <li>• Count forwards or backwards in steps of powers of 10 for any given number up to 10,000,000</li> <li>• Count forwards and backwards with positive and negative whole numbers, including through zero</li> <li>• Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit</li> <li>• Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals</li> </ul>	<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 zero</li> <li>• Solve number and practical problems that involve all of the above</li> </ul>

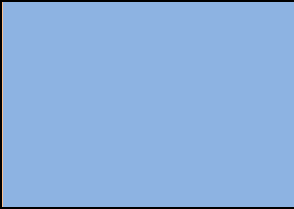
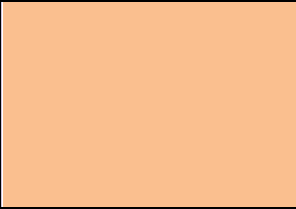
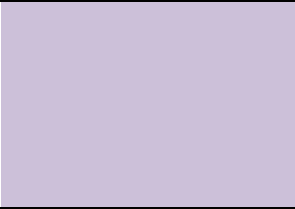
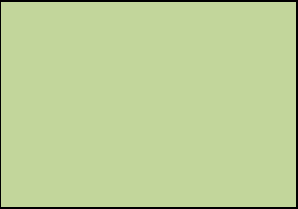
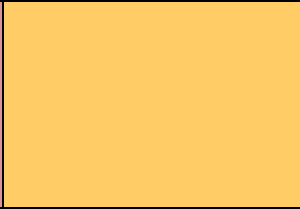
<ul style="list-style-type: none"> <li>• 3-4: Link numerals and amounts, for example showing the right number of objects to match the numeral, up to 5</li> <li>• 3-4: Experiment with their own symbols and marks as well as numerals</li> <li>• 3-4: Compare quantities using language 'more than', 'fewer than'</li> <li>• 3-4: Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then'...</li> <li>• 3-4: Solve real world mathematical problems with numbers up to 5</li> <li>• Rec: Count objects, actions and sounds</li> <li>• Rec: Count beyond ten</li> <li>• Rec: Subitise</li> <li>• Rec: Link the number symbol (numeral) with its</li> </ul>	<p>words</p> <ul style="list-style-type: none"> <li>• Given a number, identify one more and one less</li> </ul>	<p>numbers from 0 up to 100; use <math>&lt;</math>, <math>&gt;</math> and <math>=</math> signs</p> <ul style="list-style-type: none"> <li>• Use place value and number facts to solve problems</li> </ul>	<ul style="list-style-type: none"> <li>• Solve number problems and practical problems involving these ideas</li> </ul>	<p>number</p> <ul style="list-style-type: none"> <li>• Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)</li> <li>• Order and compare numbers beyond 1000</li> <li>• Round any number to the nearest 10, 100 or 1000</li> <li>• Solve number and practical problems that involve all of the above and with increasingly large positive numbers</li> </ul>	<ul style="list-style-type: none"> <li>• Interpret negative numbers in context</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> </ul>	
---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

cardinal number value

- Rec: Compare numbers
- Rec: Understand the 'one more than / one less than' relationship between consecutive numbers
- Rec: Explore the composition of numbers to 10
- ELG: Have a deep understanding of number to 10, including the composition of each number
- ELG: Subitise (recognise quantities without counting) up to 5
- ELG: Verbally count beyond 20, recognising the pattern of the counting system
- ELG: Compare quantities up to 10 in different contexts,



recognising when  
one quantity is  
greater than, less  
than or the same as  
the other quantity



## Addition and Subtraction

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• 3-4: Know that the last number reached when counting a small set of objects tells you how many there are in total ('cardinal principle')</li> <li>• 3-4: Develop fast recognition of up to 3 objects, without having to count them individually ('subitising')</li> <li>• 3-4: Show "finger numbers" up to 5</li> <li>• 3-4: Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then'...</li> <li>• 3-4: Solve real world mathematical problems with numbers up to 5</li> <li>• Rec: Subitise</li> <li>• Rec: Explore the composition of numbers to 10</li> <li>• Rec: Automatically recall number bonds for numbers 0-5 and some 0-10</li> </ul>	<ul style="list-style-type: none"> <li>• Read, write and interpret mathematical statements involving addition (+), subtractions (-) 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 zero</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 = \square - 9</math></li> </ul>	<ul style="list-style-type: none"> <li>• Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100</li> <li>• Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot</li> <li>• Recognise and use the inverse relationship between addition and subtractions and use this to check calculations and solve missing number problems</li> <li>• Add and subtract numbers using concrete objects pictorial representations, and mentally, including:</li> </ul>	<ul style="list-style-type: none"> <li>• Estimate the answer to a calculation and use inverse operations to check answers</li> <li>• Add and subtract numbers mentally, including:               <ul style="list-style-type: none"> <li>➢ a three-digit number and ones</li> <li>➢ a three-digit number and tens</li> <li>➢ a three digit number and hundreds</li> </ul> </li> <li>• Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</li> <li>• Solve problems including missing number problems, using number facts, place value, and more complex addition and subtraction</li> </ul>	<ul style="list-style-type: none"> <li>• Estimate and use inverse operations to check the answers to a calculation</li> <li>• Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</li> <li>• Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</li> </ul>	<ul style="list-style-type: none"> <li>• Use rounding to check answers to calculations and determine, in the context of problem, levels of accuracy</li> <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>• 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 and a combination of</li> </ul>	<ul style="list-style-type: none"> <li>• Perform mental calculations, including with mixed operations and large numbers</li> <li>• Use their knowledge of the order of operations to carry out calculations involving the four operations</li> <li>• Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why</li> </ul>

<ul style="list-style-type: none"> <li>• ELG: 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</li> <li>• ELG: Have a deep understanding of number to 10, including the composition of each number</li> <li>• ELG: Subitise (recognise quantities without counting) up to 5</li> <li>• ELG: Explore and represent patterns within numbers up to 10, including evens and odd, double facts and how quantities can be distributed equally</li> </ul>		<ul style="list-style-type: none"> <li>➤ a two-digit number and ones</li> <li>➤ a two-digit number and tens</li> <li>➤ two two-digit numbers</li> <li>➤ adding three one-digit numbers</li> <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> </ul>			<p>these, including understanding the meaning of the equals sign</p>	
-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	--	----------------------------------------------------------------------	--

## Multiplication and Division

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• Rec: Explore the composition of numbers to 10</li> <li>• ELG: Explore and represent patterns within numbers up to 10, including evens and odd, double facts and how quantities can be distributed equally</li> <li>• ELG: 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</li> </ul>	<ul style="list-style-type: none"> <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>	<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>• Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot</li> <li>• 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</li> <li>• Solve problems involving multiplication and division, using</li> </ul>	<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> <li>• Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which <math>n</math> objects are</li> </ul>	<ul style="list-style-type: none"> <li>• Recall multiplication and division facts for multiplication tables up to <math>12 \times 12</math></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 three numbers</li> <li>• Recognise and use factor pairs and commutativity in mental calculations</li> <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 one</li> </ul>	<ul style="list-style-type: none"> <li>• Identify multiples and factors, including finding all factor pairs of a number, and common factors of two 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>• Recognise and use square numbers and cube numbers, and the notation for squared (<math>^2</math>) and cubed (<math>^3</math>)</li> <li>• Multiply numbers up to 4 digits by one- or two-digit number using a formal written method, including long multiplication</li> </ul>	<ul style="list-style-type: none"> <li>• Identify common factors, common multiples and prime numbers</li> <li>• Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy</li> <li>• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written methods 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 a whole number remainders, fractions, or by rounding, as</li> </ul>

		<p>materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in</p>	<p>connected to m objects</p>	<p>digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects</p>	<p>for two-digit numbers</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> <li>• Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000</li> <li>• Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes</li> <li>• Solve problems involving multiplication and</li> </ul>	<p>appropriate for the context</p> <ul style="list-style-type: none"> <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> <li>• Perform mental calculations, including with mixed operations and large numbers</li> <li>• Solve problems involving addition, subtraction, multiplication and division</li> <li>• Use their knowledge of the order of operations to carry out calculations involving the four operations</li> </ul>
--	--	---------------------------------------------------------------------------------------------------------------------------	-------------------------------	------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



					<p>division, including scaling by simple fractions and problems involving simple rates</p> <ul style="list-style-type: none"><li>• Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</li></ul>	
--	--	--	--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--

## Fractions, Decimals and Percentages

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	<ul style="list-style-type: none"> <li>Recognise, find and name a half as one of two equal parts of an object, shape or quantity</li> <li>Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity</li> </ul>	<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>Recognise the equivalence of <math>\frac{2}{4}</math> and <math>\frac{1}{2}</math></li> <li>Write simple fractions for example, <math>\frac{1}{2}</math> of 6 = 3</li> </ul>	<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> <li>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators</li> <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>Compare and order unit fractions, and fractions with the same denominators</li> </ul>	<ul style="list-style-type: none"> <li>Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten</li> <li>Recognise and show, using diagrams, families of common equivalent fractions</li> <li>Add and subtract fractions with the same denominator</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>Recognise and write decimal equivalents of any number of</li> </ul>	<ul style="list-style-type: none"> <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 <math>&gt;1</math> as a mixed number [for examples, <math>\frac{2}{5} + \frac{4}{5} = \frac{6}{5} = 1 \frac{1}{5}</math>]</li> <li>Compare and order fractions whose denominations are all multiples of the same number</li> <li>Add and subtract fractions with the same denominator and denominators that are multiples of the same number</li> <li>Multiply proper</li> </ul>	<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 <math>&gt;1</math></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> <li>Identify the value of each digit in</li> </ul>

			<ul style="list-style-type: none"> <li>• Add and subtract fractions with the same denominator within one whole [for example, <math>5/7 + 1/7 = 6/7</math>]</li> <li>• Solve problems that involve all of the above</li> </ul>	<p>tenths and hundredths</p> <ul style="list-style-type: none"> <li>• Recognise and write decimal equivalents to <math>1/4</math>, <math>1/2</math>, <math>3/4</math></li> <li>• Round decimals with one decimal place to the nearest whole number</li> <li>• Compare numbers with the same number of decimal places up to two decimal places</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>• Solve simple measure and money problems involving fractions and decimals to two decimal places</li> </ul>	<p>fractions and mixed numbers by whole numbers, supported by materials and diagrams</p> <ul style="list-style-type: none"> <li>• Read and write decimal numbers as fractions [for example, <math>0.71 = 71/100</math>]</li> <li>• Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents</li> <li>• Round decimals with two decimal places to the nearest whole number and to one decimal place</li> <li>• Read, write, order and compare numbers with up to three decimal places</li> <li>• Solve problems involving number up to three decimal places</li> <li>• Recognise the per cent symbol (%) and</li> </ul>	<p>numbers given to three decimal places</p> <ul style="list-style-type: none"> <li>• Multiply and divide numbers by 10, 100 and 1,000 giving answers up to three decimal places</li> <li>• Multiply one-digit numbers with up to two decimal places by whole numbers</li> <li>• Use written division methods in cases where the answer has up to two decimal places</li> <li>• Solve problems which require answers to be rounded to specified degrees of accuracy</li> <li>• Associate a fraction with division and calculate decimal fraction equivalents [for example, <math>0.375</math>] for a simple fraction [for example, <math>3/8</math>]</li> <li>• Recall and use equivalences between simple</li> </ul>
--	--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

					<p>understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal</p> <ul style="list-style-type: none"><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 fraction with a denominator of a multiple of 10 or 25</li></ul>	<p>fractions, decimals and percentages, including in different contexts</p>
--	--	--	--	--	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------

**Ration and Proportion**

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						<ul style="list-style-type: none"><li>• Solve problems involving the relative sizes of two 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>

Algebra

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						<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 two unknowns</li><li>• Enumerate possibilities of combinations of two variables</li></ul>

## Measurement

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• 3-4: Make comparisons between objects relating to size, length, weight and capacity</li> <li>• 3-4: Begin to describe a sequence of events, real or fictional, using words such as ‘first’, ‘then’...</li> <li>• Rec: Compare length, weight and capacity</li> </ul>	<ul style="list-style-type: none"> <li>• Compare, describe and solve practical problems for:               <ul style="list-style-type: none"> <li>➤ lengths and heights [for example, long/short, longer/shorter, tall/short, double/half]</li> <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> <li>➤ time [for example, quicker, slower, earlier, later]</li> </ul> </li> <li>• Measure and begin to record the following:               <ul style="list-style-type: none"> <li>➤ lengths and heights</li> <li>➤ mass/weight</li> </ul> </li> </ul>	<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>• 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</li> </ul>	<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>• Add and subtract amounts of money to give change, using both £ and p in practical contexts</li> <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, a.m./p.m., morning, afternoon,</li> </ul>	<ul style="list-style-type: none"> <li>• Convert between different units of measure [for example, kilometre to metre; hour to minute]</li> <li>• Estimate, compare and calculate different measures</li> <li>• Estimate, compare and calculate different measures, including money in pounds and pence</li> <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> <li>• Measure and calculate the perimeter of a rectilinear figure (including squares)</li> </ul>	<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> <li>• Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling</li> <li>• Use all four operations to solve problems involving measure [for</li> </ul>	<ul style="list-style-type: none"> <li>• Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three 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 three decimal places</li> <li>• Convert between miles and kilometres</li> <li>• Use, read, write and convert between standard units, converting measurements of</li> </ul>

	<ul style="list-style-type: none"> <li>➤ capacity and volume</li> <li>➤ time (hours, minutes, seconds)</li> <li>• Recognise and know the value of different denominations of coins and notes</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 hands on a clock face to show these times</li> </ul>	<p>money</p> <ul style="list-style-type: none"> <li>• Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change</li> <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>noon and midnight</p> <ul style="list-style-type: none"> <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> <li>• Measure the perimeter of simple 2-D shapes</li> </ul>	<p>in centimetres and metres</p> <ul style="list-style-type: none"> <li>• Find the area of rectilinear shapes by counting squares</li> </ul>	<p>example, money]</p> <ul style="list-style-type: none"> <li>• Solve problems involving converting between units of time</li> <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), and including using standard units, square centimetres (<math>\text{cm}^2</math>) and square metres (<math>\text{m}^2</math>) and estimate the area of irregular shapes</li> <li>• Estimate volume [for example, using <math>1\text{cm}^3</math> blocks to build cuboids (including cubes)] and capacity [for example, using water]</li> </ul>	<p>time from a smaller unit of measure to a larger unit, and vice versa</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 volumes of cubes and cuboids using standard units, including cubic centimetres (<math>\text{cm}^3</math>) and cubic metres (<math>\text{m}^3</math>), and extending to other units [for example, <math>\text{mm}^3</math> and <math>\text{km}^3</math>]</li> </ul>
--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



## Geometry – Properties of Shape

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• 3-4: Talk about and explore 2D and 3D shapes (for example circles, rectangles, triangles and cuboids) using informal and mathematical language ‘sides’, ‘corners’, ‘straight’, ‘flat’, ‘round’</li> <li>• 3-4: Select shapes appropriately, flat surfaces for building, a triangular prism for a roof etc.</li> <li>• 3-4: Combine shapes to make new ones, an arch, a bigger triangle etc.</li> <li>• Rec: Select, rotate and manipulate shapes in order to develop spatial reasoning skills</li> <li>• Rec: Compose and decompose shapes so that children recognise a shape can have other</li> </ul>	<ul style="list-style-type: none"> <li>• Recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles]</li> <li>• Recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]</li> </ul>	<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 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 2D shapes and everyday objects</li> <li>• Recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]</li> <li>• Compare and sort common 3-D shapes and everyday objects</li> </ul>	<ul style="list-style-type: none"> <li>• Draw 2-D shapes</li> <li>• 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 two right angles make a half-turn, three make three quarters of a turn and four 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>	<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 lines of symmetry in 2-D shapes presented in different orientations</li> <li>• Identify acute and obtuse angles and compare and order angles up to two right angles by size</li> <li>• Complete a simple symmetric figure with respect to a specific line of symmetry</li> </ul>	<ul style="list-style-type: none"> <li>• Distinguish between regular and irregular polygons based on reasoning about equal sides and angles</li> <li>• Use the properties of rectangles to deduce related facts and find missing lengths and angles</li> <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 one whole turn (total 360°)</li> <li>➤ angles at a point on a straight line and 1/2 a turn (total</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Draw 2-D shapes using given dimensions and angles</li> <li>• Compare and classify geometric shapes based on their properties and sizes</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, describe and build simple 3-D shapes, including making nets</li> <li>• Find unknown angles in any triangles, quadrilaterals, and regular polygons</li> <li>• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite,</li> </ul>

shapes within it, just as numbers can					180°) ➤ other multiples of 90°	and find missing angles
------------------------------------------	--	--	--	--	--------------------------------------	----------------------------

## Geometry – Position and Direction

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<ul style="list-style-type: none"> <li>• 3-4: Understand position through words alone, for example “The bag in under the table” with no pointing</li> <li>• 3-4: Describe a familiar route.</li> <li>• 3-4: Discuss routes and locations, using words like ‘in front of’ and ‘behind’</li> <li>• 3-4: Talk about and identify the patterns around them, for example stripes on clothes, designs on rugs and wallpaper. Use informal language like ‘pointy’, ‘spotty’, ‘blobs’ etc.</li> <li>• 3-4: Extend and create ABAB patterns, e.g. stick, leaf, stick, leaf</li> <li>• 3-4: Notice and correct an error in a repeating pattern</li> <li>• Rec: Draw information from a simple map</li> <li>• Rec: Continue, copy and create repeating patterns</li> </ul>	<ul style="list-style-type: none"> <li>• Describe position, direction and movement, including whole, half quarter and three-quarter turns</li> </ul>	<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>		<ul style="list-style-type: none"> <li>• Describe position 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>	<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>	<ul style="list-style-type: none"> <li>• Describe positions on the full coordinate grid (all four quadrants)</li> <li>• Draw and translate simple shapes on the coordinate plane, and reflect them in the axes</li> </ul>

**Statistics**

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		<ul style="list-style-type: none"><li>• Interpret and construct simple pictograms, tally charts, block diagrams and simple tables</li><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>	<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>	<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>	<ul style="list-style-type: none"><li>• Complete, read and interpret information in tables, including timetables</li><li>• Solve comparison, sum and difference problems using information presented in a line graph</li></ul>	<ul style="list-style-type: none"><li>• Interpret and construct pie charts and line graphs and use these to solve problems</li><li>• Calculate and interpret the mean as an average</li></ul>