

Maths Curriculum - Year 1

<p style="text-align: center;">Number and place value</p> <p>Count to and across 100, forwards and backwards beginning with 0 or 1 or from any given number.</p> <p>Count, read and write numbers to 100 in numerals.</p> <p>Given a number, identify one more and one less.</p> <p>Use numbers to represent objects and pictures.</p> <p>Use numbers lines.</p> <p>Use equal to, more than, less than, most, least</p> <p>Read and write numbers from 1 to 20 in numerals and words.</p>	<p style="text-align: center;">Addition and Subtraction</p> <p>Read, write and understand statements using addition. Subtraction and equals signs.</p> <p>Use number bonds and subtraction facts to 20.</p> <p>Solve one step problems involving addition and subtraction using concrete objects and pictorial representations.</p> <p>Solve missing number problems such as $7 = _ - 9$</p>	<p style="text-align: center;">Measures</p> <p>Solve practical problems involving</p> <ul style="list-style-type: none"> - Length - Height - Mass / weight - Capacity - Volume - Time <p>Measure and record above</p> <ul style="list-style-type: none"> - Time (hours, mins, seconds) <p>Children to recognise different coins and notes.</p> <p>Use chronological language to sequence.</p> <p>Use days of the week, weeks, months and years.</p> <p>Tell the time to the hour, half past and draw the hands on a clock.</p>	<p style="text-align: center;">Fractions</p> <p>Recognise, find and name a half of an object, shape or quantity.</p> <p>Recognise, find and name a quarter of an object, shape or quantity.</p>
<p style="text-align: center;">Multiplication and division</p> <p>Solve one-step problems involving multiplication and division, using concrete objects and pictures.</p>	<p style="text-align: center;">Geometry</p> <p>Recognise and name common 2D and 3D shapes.</p> <p>Describe the position, direction and movement:</p> <ul style="list-style-type: none"> - Whole turns - Half turns - Quarter turns - Three quarter turns 	<p style="text-align: center;">Statistics</p> <p>N / A in year 1.</p>	<p style="text-align: center;">Mental maths (Academy expectations)</p> <p>Number bonds to 20</p> <p>Count in multiples of twos, fives and tens.</p> <p>Doubling single digit and teen numbers.</p>

Maths Curriculum - Year 2

Number and place value	Addition and Subtraction	Measures	Fractions
<p>Count in steps of 2, 3 and 5 from 0, and in 10s from any number forward and backwards.</p> <p>Partition and understand two-digit numbers.</p> <p>Use a numberline to represent and estimate place value.</p> <p>Compare and order numbers from 0-100, using $<$ $>$ and $=$.</p> <p>Read and write numbers in numerals and words to at least 100.</p> <p>Use number facts to solve problems.</p>	<p>Solve problems with addition and subtraction.</p> <p>Apply mental skills and written methods.</p> <p>Use numbers bonds to 20, and derive related facts up to 100.</p> <p>Add and subtract:</p> <ul style="list-style-type: none"> - 2-digit and 1-digit - 2-digit and tens - Two 2-digit numbers - Adding three 1-digit numbers <p>Know that addition follows the commutative law.</p> <p>Use inverse to check and solve.</p>	<p>Measure length, height, capacity, temperature using appropriate units and equipment to the nearest appropriate unit.</p> <p>Compare and order the measurements using $<$ $>$ and $=$.</p> <p>Use symbols for £ and p and combine amounts to make an amount.</p> <p>Find different combinations of coins to make a value.</p> <p>Solve problems with money, using addition, subtraction and find change.</p> <p>Compare and sequence intervals of time, tell and write the time to five minutes.</p>	<p>Recognise, find, name and write fractions</p> <ul style="list-style-type: none"> - Half - Quarter - 2 quarters - 3 quarters <p>of a length, shape, set of objects or quantity.</p> <p>Write simple fractions ($1/2$ of $6 = 3$) and recognise equivalence of two quarters and one half.</p>
Multiplication and division	Geometry	Statistics	Mental maths
<p>Recall and use $2x$, $5x$ and $10x$, and the related divisions, and use the symbols.</p> <p>Odd and even numbers.</p> <p>Know that multiplication follows the commutative law.</p> <p>Use arrays and repeated addition to solve.</p>	<p>Identify and describe properties of 2D shapes</p> <ul style="list-style-type: none"> - Number of sides and symmetry - In everyday objects, and in 3D shapes. <p>Identify and describe properties of 3D shapes</p> <ul style="list-style-type: none"> - Number of edges, vertices and faces. <p>Put objects in patterns and sequences.</p> <p>Describe position, direction of movement.</p> <p>Identify rotation of a turn using right angles, clockwise, anti-clockwise,</p>	<p>Interpret and construct:</p> <ul style="list-style-type: none"> - Simple pictograms - Tally charts - Block diagrams - Simple tables <p>Ask and answer simple questions by counting the number of objects in a category.</p> <p>Sort categories by quantities.</p> <p>Ask and answer questions about categorical data (favourite food, eye colour etc)</p>	<p>Know how many mins in an hour, and hours in a day.</p> <p>Know how many cms make a m, mm make a cm.</p> <p>Number bonds to 100.</p> <p>Learn twos, fives and tens, threes, fours and elevens.</p> <p>Doubling and halving two digit numbers.</p>

Maths Curriculum - Year 3

Number	Addition and Subtraction	Multiplication and Division	Fractions
<p>Count from 0 in multiples of 4, 8 50 and 100.</p> <p>Find 10 or 100 more or less than a number.</p> <p>Partition and understand three-digit numbers.</p> <p>Read, write, compare and order numbers to 1000 using < > and = in numerals or words.</p>	<p>Add and subtract numbers up to 3-digits using:</p> <ul style="list-style-type: none"> - column addition with partitioned numbers (extended to formal method by end of y3) - finding the difference on a numberline <p>Use inverse operation to check calculations.</p> <p>Solve missing number problems using number-facts, place value and more complex addition and subtraction.</p>	<p>Recall and use multiplication and division facts for all tables.</p> <p>Solve multiplication problems and division</p> <ul style="list-style-type: none"> - 2-digit numbers by a 1-digit (using grid method for multiplication, chunking for division). - Missing number problems. 	<p>Count up and down in tenths.</p> <p>Recognise that tenths arise from division of quantities or a single number.</p> <p>Recognise, find and write fractions of a set of objects, and fractions of numbers with small denominators.</p> <p>Recognise and show simple equivalent fractions.</p> <p>Add and subtract fractions with the same denominator within one whole.</p> <p>Order fractions with the same denominator.</p>
Geometry	Measures	Statistics	Mental Maths
<p>Draw 2d shapes and make 3D objects.</p> <p>Recognise 3d shapes in different orientation and describe them.</p> <p>Recognise angles as a property of a shape or a description of a turn.</p> <p>Identify right angles, 2 make a half turn, 3 make a $\frac{3}{4}$ and 4 make a whole turn.</p> <p>Identify angles that are greater than or less than a right angle.</p> <p>Identify horizontal, vertical, parallel and perpendicular lines.</p>	<p>Measure, compare, add and subtract lengths, mass, volume and capacity.</p> <p>Measure the perimeter of simple shapes.</p> <p>Add and subtract amounts of money to give change.</p> <p>Write and tell the time from an analogue clock including Roman numerals, from 1-12 and 12 and 24 hour clocks.</p> <p>Estimate and read time with increasing accuracy to the nearest minute.</p>	<p>Interpret and present data using</p> <ul style="list-style-type: none"> - Bar charts, pictograms and tables <p>Solve one and two step questions (how many more / fewer) using information presented in the above.</p>	<p>Add and subtract mentally numbers including</p> <ul style="list-style-type: none"> - 3-digit numbers and 1s - 3-digit numbers and tens - 3-digit numbers and hundreds. <p>Recall and use all multiplication facts.</p> <p>Know the number of seconds in a minute, the number of days in each month, year and leap year.</p>

Maths Curriculum - Year 4

<p style="text-align: center;">Number</p> <p>Count in multiples of 6, 7, 9, 25 and 1000</p> <p>Find 1000 more or less than any given number.</p> <p>Count backwards through 0 to include negative numbers.</p> <p>Recognise the place value of each digit in a 4-digit number.</p> <p>Order and compare numbers beyond 1000.</p> <p>Round any number to the nearest 10, 100 or 1000</p> <p>Read Roman numerals to 100.</p>	<p style="text-align: center;">Addition and subtractions</p> <p>Introduce adding and subtracting numbers, up to 4-digits using formal column addition and subtraction.</p> <p>Estimate and use inverse operations to check answers.</p> <p>Solve two-step addition and subtraction problems, selecting operation and method.</p>	<p style="text-align: center;">Multiplication and Division</p> <p>Multiply:</p> <ul style="list-style-type: none"> - 2 and 3 digit numbers by a 1 digit using formal written layout <p>Solve problems using addition and multiplication.</p> <p>Divide:</p> <ul style="list-style-type: none"> - Introduce short division of four digit number by a single digit number (end of year target) - Divide on a numberline using chunking 2 and 3 digit numbers. 	<p style="text-align: center;">Fractions</p> <p>Identify common equivalent fraction families.</p> <p>Count up and down in hundredths, and recognise that hundredths arise through division of an object or a single digit.</p> <p>Solve problems involving fractions of amounts.</p> <p>Add and subtract fractions with the same denominator.</p> <p>Recognise and write decimal equivalents of any number of tenths or hundredths.</p> <p>Divide any number by 10 or 100, creating decimals.</p> <p>Order and compare decimal numbers up to 2 decimal places.</p> <p>Solve simple measure and money problems using decimals to 2 decimals places.</p>
<p style="text-align: center;">Geometry</p> <p>Compare and classify shapes, including quadrilaterals and triangles.</p> <p>Identify acute, obtuse and right angles and order according to size.</p> <p>Identify lines of symmetry in 2D shapes in different orientations.</p> <p>Draw the other half of a shape using a line of symmetry.</p>	<p style="text-align: center;">Measures</p> <p>Convert between different units of measure.</p> <p>Measure and calculate perimeter of rectangles including squares.</p> <p>Find area of shapes by counting squares.</p> <p>Estimate, compare and calculate different measures including money in £ and p.</p> <p>Read, write and convert time between digital, analogue and 24 hour clock.</p>	<p style="text-align: center;">Position, direction and movement</p> <p>Use co-ordinates in the first quadrant.</p> <p>Describe movements as translation, to the left, right, up and down.</p> <p>Plot points and draw sides to complete a polygon.</p> <p style="text-align: center;">Statistics</p> <p>Bar charts, tally, pictograms and time graphs to present continuous data and solve problems.</p>	<p style="text-align: center;">Mental maths</p> <p>Recall and use all multiplication and division facts.</p> <p>Recognise and use factor pairs</p> <p>Round decimals with one D,P, to the nearest whole number.</p> <p>Convert hours to min, mins to seconds, years to months, weeks to days.</p>

Maths Curriculum - Year 5

Number	Addition and subtractions	Multiplication and Division	Fractions
<p>Read, write, order and compare numbers to at least 1 million and determine the value of each digit.</p> <p>Count forwards and backwards in steps of powers of ten for any given number to 1 million.</p> <p>Interpret negative numbers in context. Count forwards and backwards with positive and negative whole numbers through zero.</p> <p>Round any number to a million to the nearest ten, hundred, thousand, ten thousand and hundred thousand.</p> <p>Solve number problems and practical problems.</p> <p>Read Roman numerals to 1000, and recognise years written in numerals.</p>	<p>Add and subtract 4, 5 and 6-digit numbers using formal methods, where these numbers are mixed together.</p> <p>Estimate and use inverse operations to check answers.</p> <p>Solve multi-step addition and subtraction problems, selecting operation and method.</p> <p>Use rounding to check answers to calculations and levels of accuracy.</p>	<p>Identify multiples and factors.</p> <p>Identify all factor pairs and common factors of two numbers.</p> <p>Multiply 4 digit numbers by 1 or 2 digit numbers, including long multiplication.</p> <p>Divide 4 digit numbers by a 1 digit number using short division, identifying remainders.</p> <p>Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000.</p> <p>Solve problems, using factors, squares, multiples and cubes.</p> <p>Solve problems using all four operations including balanced calculations.</p>	<p>Compare and order fractions whose denominators are all multiples of the same number.</p> <p>Identify, name and write equivalent fractions of a given fraction.</p> <p>Recognise mixed numbers and improper fractions and convert from one form to another.</p> <p>Add and subtract fractions with the same denominator or multiples of the same number.</p> <p>Multiply proper fractions and mixed numbers by whole numbers.</p> <p>Read and write decimal numbers as fractions.</p> <p>Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.</p> <p>Round decimals with 2dp to the nearest whole number and to 1 d p.</p> <p>Read, write and order numbers with up to 3 d p.</p> <p>Recognise % and write as $x/100$ and as a decimal.</p> <p>Solve problems which require knowing % and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $1/5$, $2/5$ and $4/5$ and those fractions with a denominator of a multiple of 10 or 25.</p>

Geometry	Measures	Position, direction and movement	Mental maths
<p>Identify 3d shapes from nets.</p> <p>Draw, measure and compare acute, obtuse and reflex angles.</p> <p>Identify angles at a point = 360 degrees and angles on a straight line = 180 degrees.</p> <p>Use the properties of rectangles to identify facts and find missing lengths and angles.</p> <p>Distinguish between regular and irregular polygons based on reasoning about sides and angles.</p>	<p>Convert between different units of metric measure.</p> <p>Understand and use approximate equivalence between metric units and common imperial units (inches, pounds, pints).</p> <p>Measure and calculate the perimeter of composite rectangle based shapes.</p> <p>Calculate and compare the area of rectangles, and include using standard units.</p> <p>Estimate the area of irregular shapes.</p> <p>Estimate volume and capacity.</p> <p>Solve problems involving converting between units of time.</p> <p>Use all four operations to solve problems involving measure.</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>Statistics</p> <p>Solve comparison, sum and difference problems using the information presented on a line graph.</p> <p>Complete, read and interpret information in tables including time tables.</p>	<p>Multiply and divide numbers mentally, using known facts.</p> <p>Add and subtract numbers mentally with increasingly large numbers.</p> <p>Know and use prime numbers, prime factors and composite numbers.</p> <p>Establish whether a number up to 100 is prime and recall whether a number is prime up to 19.</p> <p>Recognise and use square and cube numbers, with the notation.</p>

Maths Curriculum - Year 6

Number	Ratio and proportion	Multiplication and Division	Fractions
<p>Read, write, order and compare numbers up to 10 million, 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 style="text-align: center;">Addition and subtractions</p> <p>Add and subtract negative integers.</p>	<p>Solve problems involving ratio, using multiplication and division facts.</p> <p>Solve problems involving the calculation of percentages and the use of percentages for comparisons.</p> <p>Solve problems involving similar shapes where the scale factor is known or can be found (scale up and down).</p> <p>Solve problems involving uneven sharing and grouping using knowledge of fractions (number of parts in total).</p>	<p>Multiply multi-digit numbers up to 4 digits by 2 digit whole numbers, using formal written methods.</p> <p>Divide numbers up to 4 digits by a 2 digit whole number using the formal written method of long division, interpret remainders as whole number remainders, fractions or by rounding as appropriate by the context.</p> <p>Divide number up to 4 digits by long and short division.</p> <p>Use knowledge of the order of operation to carry out calculation (BODMAS).</p>	<p>Simplify fractions using common factors.</p> <p>Compare and order fractions including fractions greater than 1.</p> <p>Add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions.</p> <p>Multiply simple pairs of proper fractions, writing the answer in its simplest form.</p> <p>Divide proper fractions by whole numbers.</p> <p>Identify the value of each digit given to 3 decimal places, and multiply and divide numbers by 10, 100 and 1000 giving answers to three decimal places.</p> <p>Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.</p>

Geometry	Measures	Statistics	Mental maths
<p>Draw 2D shapes using given dimensions and angles.</p> <p>Recognise, describe and build simple 3D shapes including making nets.</p> <p>Compare and classify geometric shapes based on their properties, and find unknown angles in any triangle, quadrilateral and regular polygon.</p> <p>Use radius, diameter and circumference and know that the diameter is twice the radius.</p> <p>Recognise angles where they meet at a point on a straight line, or are vertically opposite, and find missing angles.</p>	<p>Solve problems involving the calculation and conversion of units of measure up to 3 d p .</p> <p>Use, write, read and convert between the standard units of length, mass, volume and time from a smaller unit of measure to a larger unit and vice versa, up to 3 d p .</p> <p>Recognise that shapes can have the same area but different perimeters and vice versa.</p> <p>Recognise where 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 the area and volume of cubes and cuboids.</p>	<p>Interpret and construct pie-charts and line graphs and use these to solve problems.</p> <p>Calculate and interpret the mean as an average and the median, mode and range.</p>	<p>Perform mental calculations involving mixed operations and large numbers.</p> <p>Identify common factors, common multiples and prime numbers.</p> <p>Convert between miles and kilometres.</p> <p>Mental maths test gaps.</p> <p style="text-align: center;">Algebra</p> <p>Use simple formulae to generate and describe linear number sequences.</p> <p>Express missing number problems algebraically.</p> <p>Find pairs of numbers which satisfy an equation with two unknowns.</p> <p>Enumerate possibilities of combinations of two variable numbers and proper fractions.</p>