





	Number	Addition and Subtraction (Whole number)
Nursery	<ul> <li>Develop fast recognition of up to 3 objects, without having to count them individually ('subitising').</li> <li>Say one number for each item in order: 1,2,3,4,5.</li> <li>Show 'finger numbers' up to 5.</li> <li>Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5</li> <li>Experiment with their own symbols and marks as well as numerals.</li> <li>Beginning to notice numerals</li> <li>Explore collections of materials(objects) with similar and/or different properties.</li> <li>Points or touches (tags) each item, saying one number for each item, using the stable order of 1,2,3,4,5.</li> <li>Begin to recognise numerals 0 to 10</li> <li>Subitises one, two and three objects (without counting)</li> <li>Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle)</li> <li>Links numerals with amounts up to 5 and maybe beyond</li> <li>Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers</li> <li>Points or touches (tags) each item, saying one number for each item, using the stable order of 1,2,3,4,5.</li> </ul>	Know that the last number reached when counting a small set of objects tells you how many there are in total     Solve real world mathematical problems with numbers up to 5.     Compare amounts saying lots more or some     Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers     Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same







	Number	Addition and Subtraction (Whole number)
	Recognise, extend, create and fix simple ab patterns Count reliably (with one-to-one correspondence and under up to five forwards and backwards. Compare numbers, order and write numbers to five. Understand zero as an empty set. Count to 10 forwards and backwards. Represent numbers on a five and ten frame. Match number names to numerals and to representations of Write numbers to 10. Compare quantity. Order numbers to 10 Subitise up to 5 Numerical patterns: compare quantities up to 10 in different Number: have a deep understanding of numbers up to 10-Numerical patterns: compare quantities up to 10 in different Number: have a deep understanding of numbers up to 10, in composition of each number. Numerical patterns: compare quantities up to 10 in different Count to and from 20 Recognise and understand odd and even numbers Recognise and understand odd and even numbers Copy, continue and create aab, abc and aabc patterns.	Use a counting all strategy to combine two sets up to 10. Count on and back to find 1 more and 1 fewer. Find number bonds for numbers up to 6 Create number bonds to make 7–10 Use counting on as a strategy for addition Count forwards and backwards within 10. Recognise 1 more and 1 less Double numbers 1–5. Recognise doubles and non-doubles. Focus on word problems  Contexts Umbers up to 10 Counting Contexts. Including the
1 200	Count to 100 (first 0 – 10, then to 20, then to 40 then to 100) Read and write numbers from 0 to 100 (first 0 – 10, then to 2 to 100). Compare and order numbers from 0 to 100 (first 0 – 10, then then to 100). Make different number bonds for numbers up to 10. Make number stories Complete number patterns. Use a place-value chart to show numbers in tens and ones. Find how much more. Count in twos, fives and tens to 100. Say a number that is 1 more or 1 less than a 2-digit number.	20, then to 40 then  o Add by counting on. o Make addition stories.







	Number	Addition and Subtraction (Whole number)
Year 2	Count to 100.     Read and write numbers to 100.     Compare and arrange numbers within 100.     Make and complete number patterns.	<ul> <li>Add numbers without renaming.</li> <li>Add numbers with renaming.</li> <li>Subtract numbers without renaming.</li> <li>Subtract numbers with renaming.</li> <li>Add three numbers.</li> <li>Draw models for different situations.</li> </ul>
Year 3	<ul> <li>Count to 1000.</li> <li>Count in hundreds, tens and ones. Count in fifties.</li> <li>Count in fours and eights. Tell the value of a digit in a number.</li> <li>Compare and arrange numbers within 1000. Complete number patterns.</li> </ul>	<ul> <li>Add numbers without renaming.</li> <li>Add numbers with renaming.</li> <li>Subtract numbers without renaming.</li> <li>Subtract numbers with renaming.</li> <li>Solve word problems involving addition and subtraction.</li> </ul>
Year 4	<ul> <li>Count to 10 000.</li> <li>Count in thousands, hundreds, tens and ones. Count in twenty-fives. Count in sixes, sevens and nines.</li> <li>Tell the number that a digit stands for.</li> <li>Compare and arrange numbers within 10 000.</li> <li>Describe and complete number patterns.</li> <li>Round numbers and estimate sum and difference.</li> </ul>	<ul> <li>Add numbers without renaming.</li> <li>Add numbers with renaming.</li> <li>Add numbers mentally.</li> <li>Subtract numbers without renaming.</li> <li>Subtract numbers with renaming.</li> <li>Subtract numbers mentally.</li> <li>Solve word problems involving addition and subtraction.</li> </ul>
Year 5	<ul> <li>Read and write numbers to 1 000 000.</li> <li>Tell the place value of a digit in a number.</li> <li>Compare and arrange numbers within 1 000 000.</li> <li>Count forwards or backwards in steps of 1000, 10 000 and 100 000.</li> <li>Round numbers to the nearest 10, 100, 1000, 10 000 and 100 000.</li> </ul>	<ul> <li>Add whole numbers with more than 4 digits.</li> <li>Add numbers mentally.</li> <li>Subtract whole numbers with more than 4 digits.</li> <li>Subtract numbers mentally.</li> <li>Use rounding to check answers.</li> <li>Solve word problems involving addition, subtraction, multiplication and division, and a combination of these.</li> </ul>
Year 6	<ul> <li>Read and write numbers to 10 million.</li> <li>Compare and arrange numbers within 10 million.</li> <li>Tell the place value of a digit in a number.</li> <li>Round numbers to the nearest 10, 100, 1000, 10 000, 100 000 and 1 000 000.</li> </ul>	<ul> <li>Perform mental calculations.</li> <li>Use estimation to check answers to calculations.</li> <li>Use the order of operations.</li> <li>Solve problems involving addition and subtraction. multiplication and division.</li> </ul>







	Number	Addition and Subtraction (Whole number)	
Year 7	<ul> <li>Understand and use place value for decimals, measures and integers of any size</li> <li>Order positive and negative integers, decimals and fractions;</li> <li>Use the number line as a model for ordering of the real numbers; use the symbols =, ≠, , ≤, ≥</li> <li>Use conventional notation for the priority of operations (BIDMAS), including brackets, powers, roots and reciprocals</li> <li>Use integer powers and associated real roots (square, cube and higher), recognise powers of 2, 3, 4, 5 and distinguish between exact representations of roots and their decimal approximations</li> <li>Round numbers and measures to an appropriate degree of accuracy [for example, to a number of decimal places or significant figures]</li> </ul>	<ul> <li>Use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative.</li> </ul>	

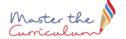






	Multiplication and Division (Whole number)	Fractions
Nursery		
Reception	O Halve sets of items and even numbers by sharing into 2 equal groups o Double numbers 1–5. o Recognise doubles and non-doubles o Halve sets of items and even numbers by sharing into 2 equal groups	
Year 1	<ul> <li>Make equal groups.</li> <li>Add equal groups to find the total number of objects.</li> <li>Group things equally.</li> <li>Share things equally. Solve word problems about multiplication.</li> </ul>	<ul> <li>Show a half.</li> <li>Show a quarter.</li> <li>Group/share things to get a half or a quarter.</li> <li>Find a half or a quarter of a group of things.</li> </ul>
Year 2	<ul> <li>Do my 2, 5 and 10 times table.</li> <li>Write multiplication equations.</li> <li>Divide a number by 2, 5 and 10.</li> <li>Write multiplication and division equations.</li> <li>Write a family of multiplication and division facts.</li> <li>Recognise odd and even numbers.</li> <li>Solve word problems using the 2, 5 and 10 times tables.</li> <li>Solve word problems involving multiplication and division.</li> </ul>	<ul> <li>Make and show halves, quarters and thirds.</li> <li>Name and write a fraction.</li> <li>Name fractions that make one whole.</li> <li>Count wholes with halves, quarters and thirds.</li> <li>Find part of a set and a quantity.</li> </ul>
Year 3	<ul> <li>Do my 3, 4 and 8 times table.</li> <li>Divide a number by 3, 4 and 8.</li> <li>Solve word problems involving the 3, 4 and 8 times tables.</li> <li>Solve word problems involving the division of 3, 4 and 8.</li> </ul>	<ul> <li>Count in tenths. Make number pairs that form one whole.</li> <li>Add and subtract two fractions.</li> <li>Find and list equivalent fractions.</li> <li>Write a fraction in its simplest form. Compare fractions.</li> <li>Find part of a set and fraction of a number.</li> <li>Share a number equally.</li> <li>Write fractions on the number line.</li> <li>Write fractions that are greater than 1.</li> <li>Solve word problems involving fractions.</li> </ul>

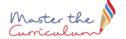






	Multiplication and Division (Whole number)	Fractions	
Year 4	<ul> <li>Multiply by 6, 7, 9, 11 and 12.</li> <li>Divide by 6, 7, 9, 11 and 12.</li> <li>Divide to find quotient and remainder.</li> <li>Solve word problems involving multiplication and division.</li> <li>Multiply without regrouping.</li> <li>Multiply with regrouping.</li> <li>Divide without regrouping.</li> <li>Divide with regrouping.</li> <li>Find the quotient and remainder in division.</li> <li>Solve word problems involving multiplication and division.</li> </ul>	<ul> <li>Count in hundredths.</li> <li>Write and show mixed numbers on a number line.</li> <li>Find equivalent fractions.</li> <li>Simplify fractions and mixed numbers.</li> <li>Add and subtract fractions.</li> <li>Solve word problems involving fractions.</li> </ul>	
Year 5	<ul> <li>Find multiples and common multiples.</li> <li>Find factors and common factors.</li> <li>Identify prime and composite numbers.</li> <li>Recognise square numbers and cube numbers, and use the notation for squares (e.g. 42) and cubes (e.g. 23).</li> <li>Multiply numbers up to 4 digits by a 1-digit number.</li> <li>Multiply numbers up to 3 digits by a 2-digit number.</li> <li>Multiply and divide mentally.</li> <li>Multiply and divide numbers by 10, 100 and 1000.</li> <li>Divide 3-digit and 4-digit numbers.</li> <li>Solve word problems involving addition, subtraction, multiplication and division, and a combination of these.</li> </ul>	<ul> <li>Find equivalent fractions of a given fraction.</li> <li>Recognise mixed numbers and improper fractions and convert from one form to the other.</li> <li>Compare and order fractions.</li> <li>Add and subtract fractions.</li> <li>Multiply proper fractions and mixed numbers by whole numbers.</li> </ul>	
Year 6	<ul> <li>Multiply numbers up to 4 digits by a 2-digit whole number.</li> <li>Divide numbers up to 4 digits by a 2-digit whole number.</li> <li>Interpret remainders in division.</li> <li>Identify common factors, common multiples and prime numbers.</li> <li>Solve problems involving multiplication and division.</li> <li>Solve problems involving the calculation and conversion of units of measure.</li> </ul>	<ul> <li>Find equivalent fractions using common multiples.</li> <li>Simplify fractions using common factors.</li> <li>Compare and order fractions.</li> <li>Add and subtract fractions.</li> <li>Multiply proper fractions by whole numbers.</li> <li>Relate division of whole numbers to fractions and decimals.</li> </ul>	







Multiplication and Division (Whole number)  3. Use the concepts and vocabulary of prime numbers, factors (or divisors), multiples, common factors, common factors, common multiples, highest common factors, lowest common multiples, prime classicition, including using product notation and the unique locatorisation property.  September one quantity as a fraction of another, where the fraction is less than 1 and greater than 1  September one quantity as a fraction of another, where the fraction is less than 1 and greater than 1			
multiples, common factors, common multiples, highest common factor, lowest common multiple, prime factorisation, including using product notation and the unique factorisation property.  greater than 1  greater than 1		Multiplication and Division (Whole number)	Fractions
	Year 7	Use the concepts and vocabulary of prime numbers, factors (or divisors),     multiples, common factors, common multiples, highest common factor, lowest     common multiple, prime factorisation, including using product notation and	Express one quantity as a fraction of another, where the fraction is less than 1 and greater than 1
	Year 7		







	Decimals	Percentage
Nursery		
Reception		
Year 1		
Year 2	<ul> <li>Recognise and write tenths. Recognise and write hundredths.</li> <li>Compare numbers with the same number of decimal places.</li> <li>Complete number patterns involving decimals.</li> <li>Round decimals with one decimal place to the nearest whole number.</li> <li>Recognise and write decimal equivalents of 1/4, 1/2 and 3/4.</li> <li>Divide a 1- or 2-digit number by 10 and by 100</li> <li>Solve simple measure and money problems involving decimals.</li> </ul>	
Year 3	<ul> <li>Read and write decimals up to three decimal places.</li> <li>Compare and order decimals up to three decimal places.</li> <li>Write fractions as decimals.</li> <li>Add and subtract decimals.</li> <li>Round decimals with two decimal places to the nearest whole number and to one decimal place.</li> <li>Solve problems involving decimals up to three decimal places.</li> </ul>	<ul> <li>Recognise the per cent symbol (%).</li> <li>Find percentages of a given number.</li> <li>Interpret a percentage as a fraction of an amount.</li> </ul>
Year 4	<ul> <li>Relate division of whole numbers to fractions and decimals.</li> <li>Write fractions as decimals.</li> <li>Tell the place value of digits in a decimal number.</li> <li>Multiply and divide decimals with 1-digit and 2-digit whole numbers.</li> </ul>	<ul> <li>Calculate the percentage of a number and a quantity.</li> <li>Use percentage to describe changes.</li> <li>Use percentage to compare.</li> </ul>







	Decimals	Percentage
Year 5	<ul> <li>Read and write decimals up to three decimal places.</li> <li>Compare and order decimals up to three decimal places.</li> <li>Write fractions as decimals.</li> <li>Add and subtract decimals.</li> <li>Round decimals with two decimal places to the nearest whole number and to one decimal place.</li> <li>Solve problems involving decimals up to three decimal places.</li> <li>Relate division of whole numbers to fractions and decimals.</li> </ul>	<ul> <li>Recognise the per cent symbol (%).</li> <li>Find percentages of a given number.</li> <li>Interpret a percentage as a fraction of an amount.</li> </ul> © Calculate the percentage of a number and a quantity.
Year 6	<ul> <li>Write fractions as decimals.</li> <li>Tell the place value of digits in a decimal number.</li> <li>Multiply and divide decimals with 1-digit and 2-digit whole numbers.</li> </ul>	<ul> <li>Use percentage to describe changes.</li> <li>Use percentage to compare.</li> </ul>
Year 7		<ul> <li>Interpret fractions and percentages as operators</li> <li>solve problems involving percentage increase and decrease</li> <li>Define percentage as 'number of parts per hundred', interpret percentages and percentage changes as a fraction or a decimal</li> </ul>







	Length	Area and Perimeter	Volume
Nursery	Compare sizes using gestures and language:     'bigger/little/small'		Compare sizes using gestures and language: 'full empty
Reception	Measure end-to-end length, compare lengths and use non-standard units of measurement		o Use the language 'empty', 'full' and 'half full' to describe how much is in a container. o Measure the capacity of o Describe and compare different capacities containers.
Year 1	<ul> <li>Compare the length of objects.</li> <li>Measure the length of objects using non standard units</li> </ul>		Compare volume and capacity.     Use half and a quarter to describe volume. Find volume and capacity using nonstandard units e.g 4 cups
Year 2	<ul> <li>How to measure length in metres (m).</li> <li>How to measure length in centimetres (cm). When to use cm or m to measure length.</li> <li>How to compare and order length.</li> <li>How to measure and draw lines.</li> <li>How to solve word problems on length.</li> </ul>		Compare volume.     Measure volume in litres (I) and millilitres (ml). Solve word problems on volume.
Year 3	<ul> <li>Write length in metres (m) and centimetres (cm).</li> <li>Convert length from m and cm to cm.</li> <li>Convert length from cm to m and cm.</li> <li>Write length in kilometres (km) and metres (m).</li> <li>Convert length from km and m to m.</li> <li>Convert length from m to km and m.</li> <li>Compare different lengths.</li> <li>Solve word problems on length.</li> </ul>	<ul> <li>Measure the total length around a shape.</li> <li>Find the perimeter of figures using a square grid.</li> <li>Find the perimeter of figures in centimetres (cm) and metres (m).</li> <li>Find the perimeter of squares and rectangles</li> </ul>	Measure volume in millilitres (ml) and litres (l).     Measure capacity in ml and l. Write volume in ml and l. Write capacity in ml and l.     Solve word problems on volume and capacity







	Length	Area and Perimeter	Volume
Year 4	Measure and estimate length.     Convert units of length.	o Measure perimeter in different units.	Measure and estimate volume.     Convert units of volume.
Year 5	Convert measurements of length.     Solve problems involving measurements.	<ul> <li>Find the perimeter of a figure.</li> <li>Find the area of a figure.</li> <li>Use scale diagrams to find the perimeter and the area of a figure.</li> <li>Estimate the area of a figure.</li> </ul>	<ul> <li>Find and compare the volumes of solids.</li> <li>Find and compare the capacity of rectangular boxes.</li> <li>Estimate volume and capacity.</li> <li>Convert units of volume.</li> <li>Solve word problems involving volume.</li> </ul>
Year 6		<ul> <li>Find the perimeter and the area of rectangles, triangles and parallelograms.</li> <li>Use formulae to find the area of rectangles, triangles and parallelograms.</li> <li>Use the area of rectangles to find the area of other types of polygons.</li> </ul>	<ul> <li>Find the volume of solids by counting unit cubes. Calculate the volume of cubes and cuboids in standard units (mm3, cm3, m3 and km3). Solve problems involving volume.</li> </ul>
Year 7	<ul> <li>Use standard units of mass, length, time, money and other measures, including with decimal quantities</li> <li>Change freely between related standard units [for example time, length, area, volume/capacity, mass]</li> </ul>	<ul> <li>Derive and apply formulae to calculate and solve problems involving: perimeter and area of triangles, parallelograms, trapezia, volume of cuboids (including cubes) and other prisms</li> <li>Calculate and solve problems involving: perimeters of 2-D shapes</li> </ul>	<ul> <li>Change freely between related standard units [for example time, length, area, volume/capacity, mass]</li> </ul>







	Geometry	Mass	Temperature
Nursery	<ul> <li>Shows awareness of shape similarities and differences between objects.</li> <li>Make comparisons between objects relating to size</li> <li>Complete inset puzzles</li> <li>Extend and create ABAB patterns – stick, leaf, stick, leaf.</li> <li>Notice and correct an error in a repeating pattern.</li> <li>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>Recognises that two objects have the same shape</li> <li>Shows awareness of shape similarities and differences between objects.</li> <li>Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes</li> <li>Creates their own spatial patterns showing some organisation or regularity</li> <li>Explores and adds to simple linear patterns of two or three repeating items, e.g. stick, leaf (AB) or stick, leaf, stone (ABC)</li> <li>Joins in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next</li> <li>Responds to both informal language and common shape names</li> </ul>		
Reception	<ul> <li>Explore and represent patterns within numbers up to 10.</li> <li>To recognise language associated with 2D shapes, specifically triangles and squares.</li> <li>To recognise language associated with 2D shapes, specifically rectangles and circles</li> <li>To be able to compose 2D shapes using tangrams and pattern blocks</li> </ul>	<ul> <li>To be able to understand the mass of different objects using word like heavy, light, heavier and lighter</li> </ul>	
Year 1	Name solids and shapes. Look for shapes in solids. Group shapes.  Make and complete patterns with shapes.	Compare the mass of objects.     Find the mass of objects.	







	Geometry	Mass	Temperature
Year 2	<ul> <li>Name triangles, quadrilaterals and polygons. Identify the number of sides and vertices of a shape.</li> <li>Identify the lines of symmetry of a shape or figure.</li> <li>Form different figures with shapes.</li> <li>Name the shapes that make up a figure. Sort shapes.</li> <li>Make and complete patterns.</li> <li>Tell how patterns are formed from shapes.</li> <li>Move shapes.</li> <li>Turn shapes.</li> <li>Recognise flat faces and curved surfaces.</li> <li>Name and describe spheres, cuboids, cubes, cylinders, cones, pyramids and prisms.</li> <li>Identify the number of faces, edges and vertices of a shape.</li> <li>Group shapes in different ways. Form structures with shapes.</li> <li>Make patterns with shapes.</li> </ul>	Measure mass in kilograms (kg).     Measure mass in grams (g).     Compare and order mass.     Solve word problems on mass.	<ul> <li>Read a thermometer.</li> <li>Measure and write down the temperature.</li> </ul>
Year 3	<ul> <li>Recognise an angle. Find angles in shapes.</li> <li>Find a right angle, an acute angle and an obtuse angle.</li> <li>Compare the sizes of angles.</li> <li>Make a half turn, a three-quarters turn and a full turn.</li> </ul>	<ul> <li>Read the scales for mass in kilograms (kg) and grams (g).</li> <li>Solve word problems on mass.</li> </ul>	
Year 4	<ul> <li>Identify acute and obtuse angles. Compare and order angles.</li> <li>Compare and classify triangles and quadrilaterals.</li> <li>Identify lines of symmetry in 2-D shapes.</li> <li>Complete a simple symmetrical figure with respect to a specific line of symmetry.</li> </ul>	Measure and estimate mass.     Convert units of mass.	
Year 5	<ul> <li>Identify acute angles, right angles, obtuse angles and reflex angles.</li> <li>Draw and measure given angles.</li> <li>Identify angles on a straight line and angles that meet at a point.</li> <li>Find unknown angles in squares and rectangles.</li> <li>Identify regular polygons. Identify 3-D shapes from 2-D drawings.</li> </ul>	<ul> <li>Convert measurements of mass.</li> <li>Solve problems involving measurements.</li> </ul>	<ul> <li>Tell the temperature.</li> <li>Solve problems involving measurements.</li> </ul>
Year 6	<ul> <li>Recognise angles that meet at a point, angles on a straight line, and vertically opposite angles. Find unknown angles in triangles, quadrilaterals and regular polygons.</li> <li>Identify the radius, diameter, circumference and centre of a circle.</li> <li>Draw 2-D shapes using given dimensions and angles.</li> <li>Identify and draw nets of 3-D shapes.</li> </ul>		







	Geometry	Mass	Temperature
Year 7	<ul> <li>Draw and measure line segments and angles in geometric figures</li> <li>Apply the properties of angles at a point, angles at a point on a straight line, vertically opposite angles</li> <li>Use the sum of angles in a triangle</li> <li>Describe, sketch and draw using conventional terms and notations: points, lines, parallel lines, perpendicular lines, right angles, regular polygons,</li> <li>Use the standard conventions for labelling the sides and angles of triangle ABC</li> <li>Derive and illustrate properties of triangles, quadrilaterals, circles, and other plane figures [for example, equal lengths and angles] using appropriate language and technologies</li> <li>Use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres to solve problems in 3-D</li> </ul>	Use standard units of mass, length, time, money and other measures, including with decimal quantities     Change freely between related standard units [for example time, length, area, volume/capacity, mass]	Use standard units of mass, length, time, money and other measures, including with decimal quantities







	Money	Time	Graphs
Nursery		Name the days of the week	
Reception	o To recognise 1p, 2p, 5p and 10p coins. To pay for items using a combination of these coins. To calculate change from 10p.	<ul> <li>To talk about time in terms of night and day, days of the week and months of the year.</li> <li>To use language related to time and to be able to sequence events e.g. first then, next after that, before everyday, evening</li> <li>Name the days of the week and months of the year</li> </ul>	o To be able to collect and represent data sets.
Year 1	o Recognise coins. Recognise notes.	<ul> <li>Tell time to the hour. Tell time to the half hour.</li> <li>Compare different times. Recognise dates on a calendar.</li> </ul>	
Year 2	Name coins and notes. Count an amount of money.     Show amounts of money in different ways.     Exchange coins and notes. Compare amounts of money. Calculate change. Solve word problems on money.	<ul> <li>Tell and write the time to 5 minutes.</li> <li>Draw hands on a clock face to show time.</li> <li>Know the number of minutes in an hour.</li> <li>Know the number of hours in a day.</li> </ul>	<ul> <li>Read information from pictograms, block diagrams, tally charts and tables.</li> <li>Make pictograms, block diagrams, tally charts and tables.</li> <li>Solve problems using information from pictograms, block diagrams, tally charts and tables.</li> </ul>
Year 3	<ul> <li>Name the amount of money in pounds and pence.</li> <li>Use different ways to show the same amount of money. Add money in pounds and pence.</li> <li>Subtract money in pounds and pence. Calculate change in pounds and pence.</li> <li>Solve word problems on money.</li> </ul>	<ul> <li>Tell and write time in a.m. and in p.m. Tell and write time using "past" and "to".</li> <li>Tell and write time shown on different types of clocks.</li> <li>Measure time in seconds, hours and minutes.</li> <li>Find starting time, ending time and duration.</li> <li>Change minutes to seconds, and seconds to minutes.</li> <li>Find the number of days using a calendar.</li> <li>Know the number of days in each month, year and leap year.</li> </ul>	<ul> <li>Draw picture graphs and bar graphs.</li> <li>Read and interpret bar graphs.</li> <li>Solve problems using information from bar graphs.</li> </ul>







	Money	Time	Graphs	
Year 4	<ul> <li>Count an amount of money and write it using decimals.</li> <li>Compare different amounts of money.</li> <li>Round money to the nearest £ and to the nearest £10.</li> <li>Solve problems involving money.</li> </ul>	<ul> <li>Tell time using the 24-hour clock.</li> <li>Change time in minutes to seconds.</li> <li>Change time in hours to minutes.</li> <li>Change time in years to months.</li> <li>Change time in months to years.</li> <li>Find the duration, starting time and finishing time.</li> <li>Solve word problems on time.</li> </ul>	<ul> <li>Use a table to show information.</li> <li>Draw, read and interpret tables, picture graphs, bar graphs and line graphs.</li> <li>Solve problems using information from tables and graphs.</li> </ul>	
Year 5		<ul> <li>Convert measurements of time.</li> <li>Solve problems involving measurements.</li> </ul>	<ul> <li>Read and interpret information in a timetable.</li> <li>Read, interpret and complete information in a table.</li> <li>Read and interpret information from a line graph.</li> <li>Solve word problems using information from a line graph.</li> </ul>	
Year 6			<ul> <li>Calculate and interpret the mean as an average.</li> <li>Draw and read pie charts.</li> <li>Draw and read graphs.</li> <li>Solve problems using information provided by graphs.</li> </ul>	
Year 7	Change freely between related standard units [for example time, length, area, volume/capacity, mass]	<ul> <li>Use standard units of mass, length, time, money and other measures, including with decimal quantities</li> <li>Change freely between related standard units [for example time, length, area, volume/capacity, mass]</li> </ul>	<ul> <li>Work with coordinates in all four quadrants</li> <li>Generate terms of a sequence from either a term-to-term or a position-to-term rule</li> <li>Describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers)</li> <li>Construct and interpret appropriate tables, charts, and diagrams, including frequency tables, bar charts, pie charts, and pictograms for categorical data, and vertical line (or bar) charts for ungrouped and grouped numerical data</li> </ul>	







	Position and Movement	Ratio	Negative Numbers	Algebra	Roman Numerals
Nursery					
Reception	o To understand and use positional language o In, on, under, next to, behind, in front of, up, down, across, near, far, forwards, backwards o Select and rotate shapes and develop spatial reasoning				
Year 1	<ul> <li>Name positions in a race and in a queue.</li> <li>Name positions from the left and from the right.</li> <li>Use words such as before, after, next to, last and between to name positions. Describe positions. Describe movements. Describe turns.</li> </ul>				
Year 2					
Year 3					
Year 4	<ul> <li>Describe positions using coordinates. Plot points and form figures on the grid.</li> <li>Describe movement including translation of figures.</li> </ul>				o Read and write Roman numerals for 1 to 20. Read and write Roman numerals to 100.







	Position and Movement	Ratio	Negative Numbers	Algebra	Roman Numerals
Year 5	<ul> <li>Write the coordinates of points.</li> <li>Describe translations and reflections.</li> <li>Find the position of a shape after translation or after reflection.</li> </ul>				<ul> <li>Write Roman numerals up to 1000.</li> <li>Write years in Roman numerals.</li> </ul>
Year 6	<ul> <li>Use coordinate grids with negative numbers.</li> <li>Describe positions of points with coordinates.</li> <li>Draw, translate and reflect simple shapes on the coordinate plane.</li> </ul>	<ul> <li>Compare         quantities and         numbers using         ratios. Solve         problems involving         ratios.</li> </ul>	<ul> <li>Add and subtract negative numbers.</li> <li>Use negative numbers in context.</li> <li>Solve problems involving negative numbers.</li> </ul>	<ul> <li>Describe and complete a pattern. Write and evaluate algebraic expressions. Write and use formulae. Solve equations.</li> </ul>	
Year 7		Use ratio notation, including reduction to simplest form		<ul> <li>Use and interpret algebraic notation, including: ab in place of a × b 3y in place of y + y + y and 3 × y in place of a × a, in place of a × a × a; b in place of a * a × a × b, in place of a ÷ b, coefficients written as fractions rather than as decimals, brackets</li> <li>Substitute numerical values into formulae and expressions, including scientific formulae</li> <li>Understand and use the concepts and vocabulary of expressions, equations, terms and factors</li> <li>Simplify and manipulate algebraic expressions to maintain equivalence by: collecting like terms multiplying a single term over a bracket</li> <li>Use algebraic methods to solve linear equations in one variable</li> <li>Understand and use standard mathematical formulae;</li> </ul>	

### robability

- o Divide a given quantity into two parts in a given part
- o Record, describe and analyse the frequency of outcomes of simple probability experiments involving randomness, fairness, equally and unequally likely outcomes, using appropriate language and the 0-1 probability scale
- o Understand that the probabilities of all possible outcomes sum to 1.