

Maths Long Term Curriculum Map

Year Group	Autumn 1 Number	Autumn 2 Shape/ Fractions	Spring 1 Time/Duration	Spring 2 Length/ Height	Summer 1 Mass/ Weight	Summer 2 Capacity/ Volume
1	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Ongoing	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Ongoing	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Ongoing	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Ongoing	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Ongoing	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number. Ongoing
	Counts, reads and writes number to 100 in numerals; counts in multiples of twos, fives and tens. Ongoing	Counts, reads and writes number to 100 in numerals; counts in multiples of twos, fives and tens. Ongoing	Counts, reads and writes number to 100 in numerals; counts in multiples of twos, fives and tens. Ongoing	Counts, reads and writes number to 100 in numerals; counts in multiples of twos, fives and tens. Ongoing	Counts, reads and writes number to 100 in numerals; counts in multiples of twos, fives and tens. Ongoing	Counts, reads and writes number to 100 in numerals; counts in multiples of twos, fives and tens. Ongoing
	Given a number, identifies one more and one less. Ongoing	Given a number, identifies one more and one less. Ongoing	Given a number, identifies one more and one less. Ongoing	Given a number, identifies one more and one less. Ongoing	Given a number, identifies one more and one less. Ongoing	Given a number, identifies one more and one less. Ongoing
	Represents and uses number bonds and related subtraction facts within 20. Ongoing.	Represents and uses number bonds and related subtraction facts within 20 Ongoing Recognises and names common 2-D and 3-D shapes, including: 1. 2D shapes [for example, rectangles (including squares), circles and triangles.]	Represents and uses number bonds and related subtraction facts within 20. Ongoing. Tells the time to the hour and half past the hour and draws the hands on a clock face to show these times.	Represents and uses number bonds and related subtraction facts within 20. Ongoing.	Represents and uses number bonds and related subtraction facts within 20. Ongoing.	Represents and uses number bonds and related subtraction facts within 20. Ongoing.

	<p>Recognises and names common 2-D and 3-D shapes, including: 2. 3D shapes [for example, cuboids (including cubes), pyramids and spheres.]</p> <p>Recognises, finds and names a half as one of two equal parts of an object, shape or quantity.</p>	Compares, describes and solves practical problems for: 4. Time [for example, quicker, slower, earlier, later.]	Compares, describes and solves practical problems for: 1, lengths and heights [for example, long/short, longer/shorter, tall/short, double/half].	Compares, describes and solves practical problems for: 2. Mass/weight [for example, heavy/light, heavier than, lighter than].	Compares, describes and solves practical problems for: 3. Capacity and volume [for example, full/empty, more than, less than, half, half full, quarter.]
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Year Group	Autumn 1 Number	Autumn 2 Shape/ Fractions	Spring 1 Time/ Duration	Spring 2 Length/ Height	Summer 1 Mass/ Weight	Summer 2 Capacity/ Volume
2	Compares and orders numbers from 0 up to 100.	Recalls and uses multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Ongoing.	Recalls and uses multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Ongoing.	Solves problems with addition and subtraction: 1. Uses concrete objects and pictorial representations, including those involving measures.	Solves problems with addition and subtraction: 1. Uses concrete objects and pictorial representations, including those involving quantities.	Solves problems with addition and subtraction: 1. Uses concrete objects and pictorial representations, including those involving quantities.
	Counts in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward.	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context. Ongoing.	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context. Ongoing.	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context. Ongoing.	Solves problems with addition and subtraction: 1. Uses concrete objects and pictorial representations, including those involving measures.	Solves problems with addition and subtraction: 1. Uses concrete objects and pictorial representations, including those involving measures.
	Uses <, > and = signs correctly.	Compares and sorts common 2-D and 3-D	Uses mathematical vocabulary to describe	Recognises, finds, names and writes	Recalls and uses multiplication and	Recalls and uses multiplication and

	shapes and everyday objects.	position, direction and movement, including movement in a straight line and distinguishes between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).	fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of length.	division facts for the 2, 5 and 10 multiplication tables, including recognising odd & even numbers. Ongoing.	division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Ongoing.
Uses place value and number facts to solve problems.	Recognises, finds, names and writes fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of shape and a set of objects.		Recalls and uses multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. Ongoing.	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context. Ongoing.	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in context. Ongoing.
Solves problems with addition and subtraction: 1. Uses concrete objects and pictorial representations, including those involving numbers.				Recognises, finds, names and writes fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a quantity.	Asks and answers questions about totalling and comparing categorical data.
Recalls and uses addition and subtraction facts to 20 and 100: 1. fluently up to 20.					
Solves simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.					
Applies an increasing knowledge of mental and written methods.					
Recalls and uses multiplication and					

division facts for the 2, 5 and 10 multiplication tables, including recognising odd & even numbers. Ongoing.					
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Year Group	Autumn 1 Number	Autumn 2 Shape/ Fractions	Spring 1 Time/ Duration	Spring 2 Length/ Height	Summer 1 Mass/ Weight	Summer 2 Capacity/ Volume
3	Counts from 0 in multiples of four, eight, 50 and 100. Ongoing.	Counts from 0 in multiples of four, eight, 50 and 100. Ongoing.	Counts from 0 in multiples of four, eight, 50 and 100. Ongoing.	Counts from 0 in multiples of four, eight, 50 and 100. Ongoing.	Counts from 0 in multiples of four, eight, 50 and 100. Ongoing.	Counts from 0 in multiples of four, eight, 50 and 100. Ongoing.
	Can work out if a given number is greater or less than 10 or 100. Ongoing.	Can work out if a given number is greater or less than 10 or 100. Ongoing.	Can work out if a given number is greater or less than 10 or 100. Ongoing.	Can work out if a given number is greater or less than 10 or 100. Ongoing.	Can work out if a given number is greater or less than 10 or 100. Ongoing.	Can work out if a given number is greater or less than 10 or 100. Ongoing.
	Recognises the place value of each digit in a three-digit number (hundreds, tens, and ones). Ongoing.	Recognises the place value of each digit in a three-digit number (hundreds, tens, and ones). Ongoing.	Recognises the place value of each digit in a three-digit number (hundreds, tens, and ones). Ongoing.	Recognises the place value of each digit in a three-digit number (hundreds, tens, and ones). Ongoing.	Recognises the place value of each digit in a three-digit number (hundreds, tens, and ones). Ongoing.	Recognises the place value of each digit in a three-digit number (hundreds, tens, and ones). Ongoing.
	Solves number problems and practical problems involving these ideas. Ongoing.	Solves number problems and practical problems involving these ideas. Ongoing.	Solves number problems and practical problems involving these ideas. Ongoing.	Solves number problems and practical problems involving these ideas. Ongoing.	Solves number problems and practical problems involving these ideas. Ongoing.	Solves number problems and practical problems involving these ideas. Ongoing.
	Adds and subtracts numbers mentally, including: 1: a three-digit number and ones. Ongoing.	Adds and subtracts numbers mentally, including: 1: a three-digit number and ones. Ongoing.	Adds and subtracts numbers mentally, including: 1: a three-digit number and ones. Ongoing.	Adds and subtracts numbers mentally, including: 1: a three-digit number and ones. Ongoing.	Adds and subtracts numbers mentally, including: 1: a three-digit number and ones. Ongoing.	Adds and subtracts numbers mentally, including: 1: a three-digit number and ones. Ongoing.
	Adds and subtracts numbers mentally, including: 2: a three-digit number and tens. Ongoing.	Adds and subtracts numbers mentally, including: 2: a three-digit number and tens. Ongoing.	Adds and subtracts numbers mentally, including: 2: a three-digit number and tens. Ongoing.	Adds and subtracts numbers mentally, including: 2: a three-digit number and tens. Ongoing.	Adds and subtracts numbers mentally, including: 2: a three-digit number and tens. Ongoing.	Adds and subtracts numbers mentally, including: 2: a three-digit number and tens. Ongoing.

Adds and subtracts numbers mentally, including: a three-digit number and hundreds. Ongoing.	Adds and subtracts numbers mentally, including: 3: a three-digit number and hundreds. Ongoing.	Adds and subtracts numbers mentally, including: 3: a three-digit number and hundreds. Ongoing.	Adds and subtracts numbers mentally, including: 3: a three-digit number and hundreds. Ongoing.	Adds and subtracts numbers mentally, including: 3: a three-digit number and hundreds. Ongoing.	Adds and subtracts numbers mentally, including: 3: a three-digit number and hundreds. Ongoing.
Recalls and uses multiplication and division facts for the multiplication tables three; four; and eight. Ongoing.	Recalls and uses multiplication and division facts for the multiplication tables three; four; and eight. Ongoing.	Recalls and uses multiplication and division facts for the multiplication tables three; four; and eight. Ongoing.	Recalls and uses multiplication and division facts for the multiplication tables three; four; and eight. Ongoing.	Recalls and uses multiplication and division facts for the multiplication tables three; four; and eight. Ongoing.	Recalls and uses multiplication and division facts for the multiplication tables three; four; and eight. Ongoing.
Writes and calculates mathematical statements for multiplication & division using the multiplication tables that are known including for two-digit numbers times one-digit numbers, using mental & progressing to formal written methods Ongoing	Writes and calculates mathematical statements for multiplication & division using the multiplication tables that are known including for two-digit numbers times one-digit numbers, using mental & progressing to formal written methods Ongoing	Writes and calculates mathematical statements for multiplication and division using the multiplication tables that are known including for two-digit numbers times one-digit numbers, using mental & progressing to formal written methods. Ongoing.	Writes and calculates mathematical statements for multiplication and division using the multiplication tables that are known including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. Ongoing.	Writes and calculates mathematical statements for multiplication & division using the multiplication tables that are known including for two-digit numbers times one-digit numbers, using mental & progressing to formal written methods. Ongoing.	Writes and calculates mathematical statements for multiplication & division using the multiplication tables that are known including for two-digit numbers times one-digit numbers, using mental & progressing to formal written methods. Ongoing.
Adds and subtracts amounts of money to give change, using both £ and p in practical contexts. Ongoing.	Adds and subtracts amounts of money to give change, using both £ and p in practical contexts. Ongoing.	Adds and subtracts amounts of money to give change, using both £ and p in practical contexts. Ongoing.	Adds and subtracts amounts of money to give change, using both £ and p in practical contexts. Ongoing.	Adds and subtracts amounts of money to give change, using both £ and p in practical contexts. Ongoing.	Adds and subtracts amounts of money to give change, using both £ and p in practical contexts. Ongoing.
	Counts up and down in tenths; recognises that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10.	Tells and writes the time from an analogue clock and 12-hour and 24-hour clocks. Identifies right angles, recognises that two right angles make a half-turn, three make three quarters of a turn and	Measures, compares, adds and subtracts lengths (m/cm/mm).	Measures, compares, adds and subtracts mass (kg/g).	Measures, compares, adds and subtracts volume/ capacity (l/ml).

	Recognises, finds and writes fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	four a complete turn; identifies whether angles are greater than or less than a right angle.			Interprets and represents data using bar charts, pictograms and tables.
	Recognises and shows, using diagrams, equivalent fractions with small Denominators.				

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Number	Shape/ Fractions	Time/ Duration	Length/ Height	Mass/ Weight	Capacity/ Volume
4	Counts in multiples of six, seven, nine, 25 and 1,000. Ongoing.	Counts in multiples of six, seven, nine, 25 and 1,000. Ongoing.	Counts in multiples of six, seven, nine, 25 and 1,000. Ongoing.	Counts in multiples of six, seven, nine, 25 and 1,000. Ongoing.	Counts in multiples of six, seven, nine, 25 and 1,000. Ongoing.	Counts in multiples of six, seven, nine, 25 and 1,000. Ongoing.
	Counts backwards through zero to include negative numbers. Ongoing.	Counts backwards through zero to include negative numbers. Ongoing.	Counts backwards through zero to include negative numbers. Ongoing.	Counts backwards through zero to include negative numbers. Ongoing.	Counts backwards through zero to include negative numbers. Ongoing.	Counts backwards through zero to include negative numbers. Ongoing.
	Orders and compares numbers beyond 1,000. Ongoing.	Orders and compares numbers beyond 1,000. Ongoing.	Orders and compares numbers beyond 1,000. Ongoing.	Orders and compares numbers beyond 1,000. Ongoing.	Orders and compares numbers beyond 1,000. Ongoing.	Orders and compares numbers beyond 1,000. Ongoing.
	Rounds any number to the nearest 10, 100 or 1,000. Ongoing.	Rounds any number to the nearest 10, 100 or 1,000. Ongoing.	Rounds any number to the nearest 10, 100 or 1,000. Ongoing.	Rounds any number to the nearest 10, 100 or 1,000. Ongoing.	Rounds any number to the nearest 10, 100 or 1,000. Ongoing.	Rounds any number to the nearest 10, 100 or 1,000. Ongoing.
	Solves addition and subtraction two-step problems in context, deciding which operations and methods to use and why. Ongoing.	Solves addition and subtraction two-step problems in context, deciding which operations and methods to use and why. Ongoing.	Solves addition and subtraction two-step problems in context, deciding which operations and methods to use and why. Ongoing.	Solves addition and subtraction two-step problems in context, deciding which operations and methods to use and why. Ongoing.	Solves addition and subtraction two-step problems in context, deciding which operations and methods to use and why. Ongoing.	Solves addition and subtraction two-step problems in context, deciding which operations and methods to use and why. Ongoing.

	Recalls multiplication and division facts for multiplication tables up to 12 x 12. Ongoing.	Recalls multiplication and division facts for multiplication tables up to 12 x 12. Ongoing.	Recalls multiplication and division facts for multiplication tables up to 12 x 12. Ongoing.	Recalls multiplication and division facts for multiplication tables up to 12 x 12. Ongoing.	Recalls multiplication and division facts for multiplication tables up to 12 x 12. Ongoing.	Recalls multiplication and division facts for multiplication tables up to 12 x 12. Ongoing.
		Recognises and shows, using diagrams, families of common equivalent fractions.		Converts between different units of measure e.g. kilometre to metre.		Converts between different units of measure e.g. litres to millilitres.
		Counts up and down in hundredths; recognises that hundredths arise when dividing an object by 100 and dividing tenths by 10.	Converts between different units of measure e.g. hour to minute.		Converts between different units of measure e.g. grams to kilograms.	Solves comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.
		Rounds decimals with one decimal place to the nearest whole number.				
		Solves simple measure and money problems involving fractions and decimals to two decimal places.				
		Compares and classifies geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.				
		Identifies lines of symmetry in two dimensional shapes presented in different orientations.				
		Plots specified points and draws sides to complete a given polygon.				

Year Group	Autumn 1 Number	Autumn 2 Shape/ Fractions	Spring 1 Time/ Duration	Spring 2 Length/ Height	Summer 1 Mass/ Weight	Summer 2 Capacity/ Volume
5	Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit. Ongoing.	Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit. Ongoing.	Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit. Ongoing.	Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit. Ongoing.	Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit. Ongoing.	Reads, writes, orders and compares numbers to at least 1,000,000 and determines the value of each digit. Ongoing.
	Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero. Ongoing.	Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero. Ongoing.	Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero. Ongoing.	Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero. Ongoing.	Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero. Ongoing.	Interprets negative numbers in context, counts forwards and backwards with positive and negative whole numbers including through zero. Ongoing.
	Adds and subtracts whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction). Ongoing.	Adds and subtracts whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction). Ongoing.	Adds and subtracts whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction). Ongoing.	Adds and subtracts whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction). Ongoing.	Adds and subtracts whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction). Ongoing.	Adds and subtracts whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction). Ongoing.
	Numbers mentally with increasingly large numbers (eg $12,462 - 2,300 = 10,162$). Ongoing.	Numbers mentally with increasingly large numbers (eg $12,462 - 2,300 = 10,162$). Ongoing.	Numbers mentally with increasingly large numbers (eg $12,462 - 2,300 = 10,162$). Ongoing.	Numbers mentally with increasingly large numbers (eg $12,462 - 2,300 = 10,162$). Ongoing.	Numbers mentally with increasingly large numbers (eg $12,462 - 2,300 = 10,162$). Ongoing.	Numbers mentally with increasingly large numbers (eg $12,462 - 2,300 = 10,162$). Ongoing.
	Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers. Ongoing.	Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers. Ongoing.	Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers. Ongoing.	Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers. Ongoing.	Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers. Ongoing.	Identifies multiples and factors including finding all factor pairs of a number and common factors of two numbers. Ongoing.

<p>Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes. Ongoing.</p>	<p>Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes. Ongoing.</p>	<p>Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes. Ongoing.</p>	<p>Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes. Ongoing.</p>	<p>Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes. Ongoing.</p>	<p>Solves problems involving multiplication and division including using a knowledge of factors and multiples, squares and cubes. Ongoing.</p>
<p>Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. Ongoing.</p>	<p>Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. Ongoing.</p>	<p>Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. Ongoing.</p>	<p>Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. Ongoing.</p>	<p>Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. Ongoing.</p>	<p>Solves problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates. Ongoing.</p>
	<p>Compares and orders fractions whose denominators are all multiples of the same number.</p>				
	<p>Reads and writes decimal numbers as fractions eg $0.71 = 71/100$.</p>	<p>Draws given angles and measures them in degrees ($^{\circ}$).</p>	<p>Measures and calculates the perimeter of composite rectilinear shapes in centimetres and metres.</p>	<p>Converts between different units of metric measure (eg gram and kilogram).</p>	<p>Converts between different units of metric measure (eg litre and millilitre).</p>
	<p>Reads, writes, orders and compares numbers with up to three decimal places.</p>				
	<p>Solves problems which require knowing percentage and decimal equivalents of $1/2$, $1/4$, $1/5$, $2/5$, $4/5$ and those fractions with a denominator of a multiple of 10 or 25.</p>		<p>Calculates and compares the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2).</p>		<p>Completes, reads and interprets information in tables, including timetables.</p>
	<p>Distinguishes between regular and irregular polygons based on reasoning about equal sides and angles.</p>		<p>Converts between different units of metric measure (eg centimetre and metre; centimetre and millimetre).</p>		

Year Group	Autumn 1 Number	Autumn 2 Shape/ Fractions	Spring 1 Time/ Duration	Spring 2 Length/ Height	Summer 1 Mass/ Weight	Summer 2 Capacity/ Volume
6	Rounds any whole number to a required degree of accuracy. Ongoing.	Rounds any whole number to a required degree of accuracy. Ongoing.	Rounds any whole number to a required degree of accuracy. Ongoing.	Rounds any whole number to a required degree of accuracy. Ongoing.	Rounds any whole number to a required degree of accuracy. Ongoing.	Rounds any whole number to a required degree of accuracy. Ongoing.
	Uses negative numbers in context and calculates intervals across zero. Ongoing.	Uses negative numbers in context and calculates intervals across zero. Ongoing.	Uses negative numbers in context and calculates intervals across zero. Ongoing.	Uses negative numbers in context and calculates intervals across zero. Ongoing.	Uses negative numbers in context and calculates intervals across zero. Ongoing.	Uses negative numbers in context and calculates intervals across zero. Ongoing.
	Multiplies multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication. Ongoing.	Multiplies multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication. Ongoing.	Multiplies multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication. Ongoing.	Multiplies multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication. Ongoing.	Multiplies multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication. Ongoing.	Multiplies multi-digit numbers up to four digits by a two-digit whole number using the formal written method of long multiplication. Ongoing.
	Divides numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. Ongoing.	Divides numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. Ongoing.	Divides numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. Ongoing.	Divides numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. Ongoing.	Divides numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. Ongoing.	Divides numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context. Ongoing.
	Solves addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Ongoing.	Solves addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Ongoing.	Solves addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Ongoing.	Solves addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Ongoing.	Solves addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Ongoing.	Solves addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why. Ongoing.

	Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy. Ongoing.	Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy. Ongoing.	Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy. Ongoing.	Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy. Ongoing.	Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy. Ongoing.	Uses estimation to check answers to calculations and determines, in the context of a problem, an appropriate degree of accuracy. Ongoing.
	Uses written division methods in cases where the answer has up to two decimal places. Ongoing.	Uses written division methods in cases where the answer has up to two decimal places. Ongoing.	Uses written division methods in cases where the answer has up to two decimal places. Ongoing.	Uses written division methods in cases where the answer has up to two decimal places. Ongoing.	Uses written division methods in cases where the answer has up to two decimal places. Ongoing.	Uses written division methods in cases where the answer has up to two decimal places. Ongoing.
	Solves problems which require answers to be rounded to specified degrees of accuracy. Ongoing.	Solves problems which require answers to be rounded to specified degrees of accuracy. Ongoing.	Solves problems which require answers to be rounded to specified degrees of accuracy. Ongoing.	Solves problems which require answers to be rounded to specified degrees of accuracy. Ongoing.	Solves problems which require answers to be rounded to specified degrees of accuracy. Ongoing.	Solves problems which require answers to be rounded to specified degrees of accuracy. Ongoing.
		Recalls and uses equivalences between simple fractions, decimals and percentages, including in different contexts.	Uses, reads, writes and converts between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places.	Uses, reads, writes and converts between standard units, converting measurements of length from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places.	Uses, reads, writes and converts between standard units, converting measurements of mass from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places.	Uses, reads, writes and converts between standard units, converting measurements of volume from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places.
		Solves problems involving the calculation of percentages e.g. of measures and calculations such as 15 per cent of 360, and the use of percentages for comparison.				
		Solves problems involving unequal sharing and grouping using knowledge of fractions and multiples.				
		Uses simple formulae.				Interprets pie charts and line graphs and uses these to solve problems.

		Compares and classifies geometric shapes based on their properties and sizes and finds unknown angles in any triangles, quadrilaterals and regular polygons.				Calculates and interprets the mean as an Average.
		Draws & translates simple shapes on the coordinate plane & reflects them in the axes				

Year Group	Autumn 1 Number	Autumn 2 Geometry and measures	Spring 1 Proportion, Ratios and Rates of change	Spring 2 Algebra (2 half terms)	Summer 1 Algebra (2 half terms)	Summer 2 Probability and statistics
7	Understand and use place value for decimals, measures and integers of any size.	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 (including cylinders).	Change freely between related standard units (for example time, length, area, volume/capacity, mass)	Use & interpret algebraic notation, including: ab in place of axb , $3y$ in place of $y+y+y$ and $3xy$, a^2 in place of axa , a^3 in place of $axaxa$, a^2b in place of $axaxb$, a/b in place of $a \div b$, coefficients written as fractions rather than as decimals, brackets.	Use & interpret algebraic notation, including: ab in place of axb , $3y$ in place of $y+y+y$ and $3xy$, a^2 in place of axa , a^3 in place of $axaxa$, a^2b in place of $axaxb$, a/b in place of $a \div b$, coefficients written as fractions rather than as decimals, brackets.	Understand that the probabilities of all possible outcomes sum to 1.
	Use the concept 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 the unique factorisation property.	Derive and illustrate properties of triangles, quadrilaterals, circles, and other plane figures (e.g. equal lengths and angles) using appropriate language and technologies.	Use scale factors, scale diagram and maps	Understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors.	Understand and use the concepts and vocabulary of expressions, equations, inequalities, terms and factors.	Construct and interpret appropriate tables, bar charts, pie charts and pictograms for categorical data, and vertical line (or bar) charts for grouped and ungrouped numerical data.

	Use conventional notation for the priority of operations, including brackets, powers, roots and reciprocals	Identify properties of and describe the results of translations, rotations and reflections applied to given figures.	Use ratio notation, including reduction to simplest form.	Simplify and manipulate algebraic expressions to maintain equivalence by: collecting like terms, multiplying a single term over a bracket, taking out common factors, expanding products of two or more binomials.	Simplify and manipulate algebraic expressions to maintain equivalence by: collecting like terms, multiplying a single term over a bracket, taking out common factors, expanding products of two or more binomials.	
	Recognise and use relationships between operations, including inverse operations.	Apply the properties of angles at a point on a straight line, vertically opposite angles.	Divide a given quantity into two parts in a given part: part or part: whole ratio; express the division of a quantity into two parts as a ratio.	Use algebraic methods to solve linear equations in one variable (including all forms that need rearrangement).	Use algebraic methods to solve linear equations in one variable (including all forms that need rearrangement).	
	Use standard units of mass, length, time money and other measures, including with decimal quantities.	Derive & use the sum of angles in a triangle & use it to deduce the angle sum in any polygon, and to derive properties of regular polygons.	Understand that a multiplicative relationship between two quantities can be expressed as a ratio or a fraction.	Work with coordinates in all four quadrants.	Work with coordinates in all four quadrants.	
	Round numbers and measures to an appropriate degree of accuracy (eg. to a number of decimal places or significant	Use the properties of faces, surfaces, edges and vertices of cubes, cuboids, prisms, cylinders, pyramids, cones and spheres to solve problems in 3D.				

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
	Number	Geometry and measure	Proportion, ratio and rates of change	Algebra (2 half terms)	Algebra (2 half terms)	Probability and statistics
8	Order positive & negative integers, decimals and fractions; use the	Calculate and solve problems involving: perimeters of 2D shapes	Express one quantity as a fraction of another, where the	Substitute numerical values into formulae and	Substitute numerical values into formulae and	Record, describe and analyse the frequency of outcomes of simple

number line as a model for ordering of the real numbers; use the symbols =, \neq , \geq , $<$, $>$	(including circles), areas of circles and composite shapes.	fraction is less than 1 and greater than 1.	expressions, including scientific formulae.	expressions, including scientific formulae.	probability experiments involving randomness, fairness, equally and unequally likely outcomes, using appropriate language and the 0-1 probability scale.
Use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative.	Draw and measure line segments and angles in geometric figures, including interpreting scale drawings.	Relate the language of ratios and the associated calculations to the arithmetic of fractions and to linear functions.	Understand and use standard mathematical formulae; rearrange formulae to change the subject.	Understand and use standard mathematical formulae; rearrange formulae to change the subject.	
work interchangeably with terminating decimals and their corresponding fractions (such as 3.5 and $\frac{7}{2}$ or 0.375 and $\frac{3}{8}$).	use the standard conventions for labelling the sides and angles of triangle ABC, and know and use the criteria for congruence of triangles.	Solve problems involving percentage change, including: percentage increase, decrease and original value problems and simple interest in financial mathematics.	Model situations or procedures by translating them into algebraic expressions or formulae and by using graphs.	Model situations or procedures by translating them into algebraic expressions or formulae and by using graphs.	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).
define percentage as number of parts per hundred, interpret percentages and percentage changes, as a fraction or a decimal, interpret these multiplicatively, express one quantity as a percentage of another, compare two quantities, using percentages, and work with percentages greater than 100%	identify and construct congruent triangles, and construct similar shapes by enlargement, with and without coordinate grids.		Recognise, sketch and produce graphs of linear and quadratic functions of one variable with appropriate scaling, using equations in x and y and the Cartesian plane.	Recognise, sketch and produce graphs of linear and quadratic functions of one variable with appropriate scaling, using equations in x and y and the Cartesian plane.	
use a calculator and other technologies to calculate results accurately and then	apply angle facts, triangle congruence, similarity and properties of quadrilaterals to derive results about angles and		Generate terms of a sequence from either a term-to-term or a position-to-term rule.	Generate terms of a sequence from either a term-to-term or a position-to-term rule.	

	interpret them appropriately	sides, including Pythagoras Theorem, and use known results to obtain simple proofs.		Recognise arithmetic sequence and find the nth term.	Recognise arithmetic sequence and find the nth term.	
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Year Group	Autumn 1 Number	Autumn 2 Geometry and measures	Spring 1 Proportion, ratios and rates of change	Spring 2 Algebra (2 half terms)	Summer 1 Algebra (2 half terms)	Summer 2 Probability and statistics
9	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	Derive and use the standard ruler and compass constructions (perpendicular bisector of the line segment, constructing a perpendicular to give a line from/at a given point, bisecting a given angle); recognise and use the perpendicular distance from a point to a line from the shortest distance to the line.	Solve problems involving direct and inverse proportion, including graphical and algebraic representations.	Interpret mathematical relationships both algebraically and graphically.	Interpret mathematical relationships both algebraically and graphically.	Enumerate sets and unions/intersections of sets systematically, using tables grids and Venn diagrams. Generate theoretical sample spaces for single and combined events with equally likely, mutually exclusive outcomes and use these to calculate theoretical probabilities.
		describe, sketch and draw using conventional terms and notations: points lines, parallel lines, right angles, regular polygons, and other polygons that are reflectively and rotationally symmetric.	use compound units such as speed, unit pricing and density to solve problems.	Reduce a given linear equation in two variables to the standard form $y=mx + c$; calculate and interpret gradients and intercepts of graphs such as linear equations, numerically, graphically & algebraically.	Reduce a given linear equation in two variables to the standard form $y=mx + c$; calculate and interpret gradients and intercepts of graphs such as linear equations, numerically, graphically & algebraically.	Describe simple mathematical relationships between two variables (bivariate data) in observational and experimental contexts and illustrate using scatter graphs.
		understand and use the relationship between parallel lines and		Use linear and quadratic graphs to estimate values of y for given values of x	Use linear and quadratic graphs to estimate values of y for given values of x	

		alternate and corresponding angles.		and vice versa and to find approximate solutions of simultaneous linear equations.	and vice versa and to find approximate solutions of simultaneous linear equations.	
		Use Pythagoras' Theorem and trigonometric ratios in similar triangles to solve problems involving right angled triangles.		Find approximate solutions to contextual problems from given graphs of a variety of functions, including piece-wise linear, exponential and reciprocal graphs.	Find approximate solutions to contextual problems from given graphs of a variety of functions, including piece-wise linear, exponential and reciprocal graphs.	
		interpret mathematical relationships both algebraically and geometrically.		Recognise geometric sequences and appreciate other sequences that arise.	Recognise geometric sequences and appreciate other sequences that arise.	