



St Walburga's Catholic Primary School
Whole School Maths Progression Overview



Number, Place Value and Rounding							
Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Counting	Verbally count beyond 20, recognising the pattern of the counting system.	Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number.			Count backwards through zero to include negative numbers.	Interpret negative numbers in context, and count forwards and backwards with positive and negative whole numbers, including through zero.	Use negative numbers in context and calculate intervals across zero.
Counting in multiples		Count in multiples, including 2s, 5s and 10s.	Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward.	Count from 0 in multiples of 4, 8, 50 and 100.	Count in multiples of 6, 7, 9, 25 and 1000.	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.	
More or less than a number		Given a number, identify 1 more and 1 less.	Find 10 more or less than a given number.	Find 10 or 100 more or less than a given number.	Find 1000 more or less than a given number.		
Identifying, representing and estimating numbers	Have a deep understanding of number to 10, including the composition of each number. Subitise (recognise quantities without counting) up to 5.	Identify and represent numbers using concrete objects and pictorial representations, including a number line.	Identify, represent and estimate numbers using different representations, including a number line.	Identify, represent and estimate numbers using different representations.	Identify, represent and estimate numbers using different representations.		
Reading and writing numbers		Count, read and write numbers to 100 in numerals. Read and write numbers from 1-20 in numerals and words.	Read and write numbers to at least 100 in numerals and words.	Read and write numbers to at least 1000 in numerals and words.		Read, write, order and compare numbers to at least 1 000 000, and determine the value of each digit.	Read, write, order and compare numbers to at least 10 000 000, and determine the value of each digit.
Comparing and ordering numbers	Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.	Order numbers 1-20, including ordinal numbers (1 st , 2 nd , 3 rd ...).	Compare and order numbers from 0 up to 100; use <, > and = signs.	Compare and order numbers up to 1000.	Compare and order numbers beyond 1000.		
Understanding place value		Begin to recognise place value in numbers up to, and beyond, 20.	Recognise the place value of each digit in a 2-digit number (tens, ones).	Recognise the place value of each digit in a 3-digit number.	Recognise the place value of each digit in a 4-digit number.		
Rounding					Round any number to the nearest 10, 100 or 1000.	Round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000.	Round any whole number to a required degree of accuracy.

Number, Place Value and Rounding

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Roman Numerals				Read Roman Numerals to 12.	Read Roman Numerals to 100 (I to C) and understand that over time, the numeral system changed to include the concept of zero and place value.	Read Roman Numerals to 1000 (M) and recognise years written in Roman Numerals.	
Problem-solving			Use place value and number facts to solve problems.	Solve number problems and practical problems that involve all of the above.	Solve number problems and practical problems that involve all of the above and with increasing large positive numbers.	Solve number problems and practical problems that involve all of the above.	Solve number problems and practical problems that involve all of the above.
Vocab	One more one less order number count numbers up to twenty pictorial answer equals read write	Same as EYFS, plus: forwards backwards numerals words multiples equal to more than less than fewer most least identify represent digit calculate odd, even pattern numbers up to 100	Same as EYFS & Year 1, plus: ones tens two-digit estimate place value solve problems greater than (>) less than (<) nearest ten number facts partition count in steps zero compare determine value	Same as EYFS & KS1, plus: hundreds three-digit ten more one hundred more ten less one hundred less Roman numeral numbers up to 1000	Same as previous year groups, plus: thousands four-digit negative number one thousand more one thousand less decimal decimal place rounding place holder nearest ten nearest hundred nearest thousand one place whole number integer tenths hundredths	Same as previous year groups, plus: ten thousands hundred thousands millions context steps of powers decimal equivalents two decimal places thousandths numbers up to 1 000 000	Same as previous year groups, plus: intervals across zero three decimal places ten thousandths numbers up to 10 000 000

Addition and Subtraction

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Number bonds/facts	Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.	Represent and use number bonds and related subtraction facts within 20.	Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100.				
			Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.				
Mental calculations		Add and subtract 1-digit and 2-digit numbers to 20, including zero.	Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> • 2-digit number & ones • 2-digit number & tens • Two 2-digit numbers • Adding three 1-digit numbers. 	Add and subtract numbers mentally, including: <ul style="list-style-type: none"> • 3-digit number & ones • 3-digit number & tens • 3-digit number & hundreds 		Add and subtract numbers mentally with increasingly large numbers.	Perform mental calculations, including with mixed operations and large numbers.
Written methods		Read, write, and interpret mathematical statements involving + - = signs.	Read, write, and interpret mathematical statements involving + - = signs.	Add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction.	Add and subtract numbers with up to 4 digits, using formal written methods of columnar addition and subtraction where appropriate.	Add and subtract numbers with more than 4 digits, using formal written methods of columnar addition and subtraction where appropriate.	Use knowledge of the order of operations (BODMAS) to carry out calculations involving all four operations.
Checking answers			Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and missing number problems.	Estimate the answer to a calculation and use the inverse operations to check answers.	Estimate and use the inverse operations to check answers to a calculation.	Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy.	Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.

Addition and Subtraction

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Problem-solving		Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems.	Solve problems with addition and subtraction: <ul style="list-style-type: none"> Using concrete objects and pictorial representations, including those involving numbers, quantities, and measures Applying their increasing knowledge of mental and written methods. 	Solve problems, including missing number problems, number facts, place value and more complex addition and subtraction.	Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.	Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
							Solve problems involving addition, subtraction, multiplication, and division.
Vocab	add, subtract addition subtraction adding subtracting number number line single digit count on count back answer doubling halving sharing numbers to twenty check take away	Same as EYFS, plus: one step problem concrete object pictorial representation missing number problem read write interpret equals (=) signs one-digit two-digit ones mental mentally altogether total difference between more than less than put together	Same as EYFS & Year 1, plus: columnar addition columnar subtraction tens order inverse relationship calculation solve problems missing number problems quantities measures formal written method mental method method operation apply whole number sum	Same as EYFS & KS1, plus: three-digit number hundreds estimate number facts	Same as previous year groups, plus: two-step problems context four-digit	Same as previous year groups, plus: increasingly large numbers more than 4 digits rounding determine context multi-step problems	Same as previous year groups, plus: estimation mixed operations

Multiplication and Division

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Counting in multiples		Count in multiples, including 2s, 5s and 10s.	Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward.	Count from 0 in multiples of 4, 8, 50 and 100.	Count in multiples of 6, 7, 9, 25 and 1000.	Count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000.	
Multiplication and division facts	Explore and represent patterns within numbers to 10, including evens and odds, double facts and how quantities can be distributed equally.		<p>Recall and use multiplication and division facts for the 2, 5, 10 times tables, including recognising odd and even numbers.</p> <p>Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.</p>	Recall and use multiplication and division facts for the 3, 4, 8 times tables.	Recall and use multiplication and division facts up to 12x12.		
Mental calculations				Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods.	Use place value and known and derived facts to multiply and divide mentally, including multiplying by 0 and 1; dividing by 1; multiplying together three numbers.	Multiply and divide numbers mentally drawing upon known facts, including multiplying and dividing whole numbers and those involving decimals by 10, 100 and 1000.	Perform mental calculations, including with mixed operations and large numbers.
Written methods			Calculate the mathematical statements for multiplication and division within the multiplication tables and write them using \times \div = signs.		Multiply and divide 2-digit and 3-digit numbers by a 1-digit number using formal written methods.	<p>Multiply numbers up to 4-digits by a 1-digit or 2-digit number using formal written methods, including long multiplication for 2-digit numbers.</p> <p>Divide numbers up to 4-digits by a 1-digit number using the formal written method of short division and interpret remainders appropriately for the context.</p>	<p>Multiply multi-digit numbers up to 4 digits by a 2-digit whole number using the formal written method of long multiplication.</p> <p>Divide numbers up to 4-digits by a 2-digit whole number using the formal written method of short or long division, interpreting remainders as whole number remainders, fractions, or by rounding as appropriate to the context.</p>

Multiplication and Division

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Properties of numbers: multiples, factors, primes, square and cube numbers					Recognise and use factor pairs and commutativity in mental calculations.	Identify multiples and factors, including finding all factor pairs of a number and common factors of two numbers.	Identify common factors, common multiples, and prime numbers.
						Know and use the vocabulary of prime numbers, prime factors, and composite (non-prime) numbers.	
						Establish whether a number up to 100 is a prime and recall prime numbers up to 19.	
						Recognise and use square numbers (²) and cube numbers (³) and notation.	
Order of operations							Use knowledge of the order of operations (BODMAS) to carry out calculations involving all four operations.
Checking answers				Estimate the answer to a calculation and use the inverse operations to check answers.	Estimate and use the inverse operations to check answers to a calculation.		Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy.
Problem-solving		Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations, and arrays, with the support of the teacher.	Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.	Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by one digit, integer scaling problems and harder correspondence problems, such as n objects are connected to m objects.	Solve problems involving multiplication and division, including using knowledge of factors and multiples, squares, and cubes.	Solve problems involving addition, subtraction, multiplication and division.
						Solve problems involving addition, subtraction, multiplication and division and a combination of these.	
						Solve problems involving multiplication and division, including scaling by simple fractions, and problems involving simple rates.	

Multiplication and Division

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocab	double half share doubling halving sharing grouping	Same as EYFS, plus: multiples twos fives tens number multiply divide multiplication division one-step problem answer concrete object pictorial representation arrays count equals write	Same as EYFS & Year 1, plus: multiplication facts division facts multiplication tables odd numbers even numbers equally repeated addition calculate	Same as EYFS & KS1, plus: missing number problem estimate inverse formal written method mathematical statement recall integer one-digit two-digit	Same as previous year groups, plus: derived facts factors factor pairs scaling problems three-digit	Same as previous year groups, plus: decimals four-digit long multiplication short division remainders context common factors common multiples prime numbers prime factors composite numbers square number cube number notation squares cubes equivalent to	Same as previous year groups, plus: scale factor long division whole number fractions rounding mixed operations degree of accuracy

Fractions, Decimals and Percentages

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Recognising fractions		Recognise, find, and name a half as one of two equal parts of an object, shape, or quantity.	Recognise, find, name, and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, and $\frac{3}{4}$ of a length, shape, set of objects or quantity.	Recognise, find, and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.	Recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents.	
				Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.			
		Recognise, find, and name a quarter as one of four equal parts of an object, shape, or quantity.		Recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10.			
Counting in fractional steps			Count in fractions up to 10.	Count up and down in tenths.	Count up and down in hundredths.	Practise counting forwards and backwards in simple fractions.	
Comparing and ordering fractions				Compare and order unit fractions, and fractions with the same denominators.		Compare and order fractions whose denominators are all multiples of the same number.	Compare and order fractions, including fractions greater than 1.
Addition and subtraction of fractions				Add and subtract fractions with the same denominator within one whole.	Add and subtract fractions with the same denominator.	Add and subtract fractions with the same denominator and multiples of the same number.	Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions.
				Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number.			
Multiplication and division of fractions						Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams.	Multiply simple pairs of proper fractions, writing the answer in its simplest form.
						Find fractions of numbers and quantities.	Divide proper fractions by whole numbers.

Fractions, Decimals and Percentages

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Comparing and ordering decimals					Compare numbers with the same number of decimal places up to two decimal places.	Read, write, order, and compare numbers with up to three decimal places.	Identify the value of each digit in numbers given to three decimal places.
Rounding with decimals					Round decimals with one decimal place to the nearest whole number.	Round decimals with two decimal places to the nearest whole number and to one decimal place.	Solve problems which require answers to be rounded to specified degrees of accuracy.
Addition and subtraction of decimals						Practise adding and subtracting decimals, including a mix of whole numbers and decimals.	
Multiplication and division of decimals					Find the effect of dividing a 1-digit or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths.		Multiply 1-digit numbers with up to two decimal places by whole numbers.
							Multiply and divide numbers by 10, 100 and 1000 where the answers are up to three decimal places.
							Use written division methods in cases where the answer has up to two decimal places.
Percentages						Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per 100'.	Solve problems involving the calculation of percentages of whole numbers or measures such as 15% of 360 and the use of percentages for comparison.

Fractions, Decimals and Percentages

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Equivalence			Write simple fractions, e.g., $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{1}{2}$ and $\frac{2}{4}$.	Recognise and show, using diagrams, equivalent fractions with small denominators.	Recognise and show, using diagrams, families of common equivalent fractions.	Identify, name, and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths.	Use common factors to simplify fractions; use common multiples to express fractions in the same denomination.	
					Recognise and write decimal equivalents on any number of tenths or hundredths.	Read and write decimal numbers as fractions. Recognise and use thousandths and relate them to tenths, hundredths, and decimal equivalents.		Associate a fraction with division and calculate decimal fraction equivalents (e.g., 0.375) for a simple fraction (e.g., $\frac{3}{8}$).
					Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$.	Write percentages as a fraction with denominator 100 as a decimal fraction.		Recall and use equivalences between simple fractions, decimals, and percentages, including in different contexts.
Problem-solving				Solve problems that involve all the above.	Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.	Solve problems involving numbers up to three decimal places.		
					Solve simple measure and money problems involving fractions and decimals to two decimal places.	Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those with a denominator of a multiple of 10 or 25.		

Fractions, Decimals and Percentages

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocab	double half share doubling halving sharing grouping	Same as EYFS, plus: fraction half equal parts one whole object shape quarter quantity	Same as EYFS & Year 1, plus: simple fractions equivalent equivalence count	Same as EYFS & KS1, plus: tenths unit fractions non- unit fractions numerator denominator compare order add subtract solve problems	Same as previous year groups, plus: hundredths decimal decimal place one decimal place two decimal places round decimals whole number common equivalent fractions decimal equivalents dividing ones tenths hundredths simple measure money problems	Same as previous year groups, plus: thousandths multiples three decimal places per cent number of parts per hundred percentages decimal fraction mixed numbers improper fraction proper fraction convert mathematical statements multiply percentage and decimal equivalents	Same as previous year groups, plus: common factors common multiples decimal fraction equivalents simplest form

Measurement

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Comparing and estimating		Compare, describe, and solve practical problems for: <ul style="list-style-type: none"> Lengths and heights Mass/weight Capacity and volume Time 	Choose and use appropriate standard units to estimate and measure: <ul style="list-style-type: none"> Length/height in any direction (m/cm) Mass (kg/g) Temperature (°C) Capacity (l/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels.		Estimate, compare, and calculate different measures.	Estimate volume (e.g., using 1 cm ³ blocks to build cubes and cuboids) and capacity (e.g., using water).	Calculate, estimate, and compare volume of cubes and cuboids using standard units, including cm ³ and m ³ , and extending to other units such as mm ³ and km ³ .
	Measuring and calculating		Measure and begin to record the following: <ul style="list-style-type: none"> Length and heights Mass/weight Capacity and volume Time (hours, minutes, seconds) 	Compare and order lengths, mass, volume/capacity and record the results using >, < and =.			
Perimeter					Measure the perimeter of simple 2D shapes.	Measure and calculate the perimeter of a rectilinear figure (including squares) in cm and m.	Measure and calculate the perimeter of composite rectilinear shapes in cm and m.
Area and volume					Find the area of rectilinear shapes by counting squares.	Calculate and compare the area of rectangles (including squares and using cm ² and m ²) and estimate the area of irregular shapes.	Calculate the area of parallelograms and triangles.
							Recognise when it is possible to use the formulae for area and volume of shapes.
Money		Recognise and know the value of different denominations of coins and notes.	Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.	Add and subtract amounts of money to give change, using both £ and p in practical contexts.	Estimate, compare and calculate different measures, including money in pounds and pence.		
			Find different combinations of coins that equal the same amounts of money.				
			Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.				

Measurement

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Telling the time		Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times.	Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock to show these times.	Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks.	Read, write, and convert time between analogue and digital 12- and 24-hour clocks.		
				Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes, and hours.			
Time knowledge		Sequence events in chronological order using language (e.g., before, after, next, first, today, yesterday, tomorrow, morning, afternoon, evening).	Know the number of minutes in an hour and the number of hours in a day.	Know the number of seconds in a minute and the number of days each month, year, and leap year.			
		Recognise and use language relating to dates, including days of the week, weeks, months, years.	Compare and sequence intervals of time.	Compare durations of events, for example, to calculate time taken by events or tasks.			
Time problem-solving					Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	Solve problems involving converting between units of time.	
Converting					Convert between different units of measure (e.g., km to m; hours to minutes).	Convert between different units of metric measure (e.g., km/m; cm/m; cm/mm; g/kg; l/ml).	Use, read, write, and convert between standard units, converting measurements of length, mass, volume, and time from a smaller unit of measure to a larger unit, and vice versa, including decimal notation to three decimal places.
						Understand and use approximate equivalences between metric units and common imperial units, such as inches, pounds, and pints.	Convert between miles and km.

Measurement

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Vocab		length height long short longer shorter tall double half mass heavy light heavier than lighter than volume full empty more than less than half half full quarter quicker slower earlier later sequence events chronological order before/after first/next today/yesterday/tomorrow morning/afternoon/evening record hours minutes half past o clock hands clock face seconds coins notes dates days/weeks/months/years	Same as EYFS & Year 1, plus: greater than > less than < equals = intervals standard units estimate direction temperature unit scales rulers thermometers measuring vessels metres centimetres kilograms grams degrees Celsius litres millilitres symbols money pounds (£) pence (p) different combinations change five past ten past quarter past twenty past twenty-five past half past twenty-five to twenty to quarter to ten to five to	Same as EYFS & KS1, plus: duration time taken nearest minute record seconds a.m. p.m. noon midnight kilometre add subtract millimetres perimeter simple 2-d shapes analogue clock digital clock roman numerals 12-hour 24-hour leap year	Same as previous year groups, plus: estimate rectilinear figure area rectilinear shapes convert	Same as previous year groups, plus: square centimetres (cm ²) square metres (m ²) irregular shapes volume (cm ³) cubes cuboids square numbers cube numbers metric measure metric units imperial units inches pounds pints	Same as previous year groups, plus: decimal notation cubic centimetres (cm ³) cubic metres (m ³) cubic millimetre (mm ³) cubic kilometre (km ³) decimal places formulae miles

Geometry

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Identifying and describing the properties of 2D and 3D shapes		Recognise and name common 2D and 3D shapes, including: <ul style="list-style-type: none"> 2D: rectangles (including squares), circles, triangles 3D: cuboids (including cubes), pyramids, spheres 	Identify and describe the properties of 2D shapes, including the number of sides and symmetry in a vertical line.	Recognise 3D shapes in different orientations and describe them.	Identify and name different triangles (isosceles, equilateral, scalene) and quadrilaterals (parallelogram, rhombus, trapezium).	Identify 3D shapes, including cubes and cuboids, from 2D representations.	Illustrate and name parts of circles, including radius, diameter, and circumference, and know that the diameter is twice the radius.
			Identify and describe the properties of 3D shapes, including the number of edges, vertices and faces.			Distinguish between regular and irregular polygons based on reasoning about equal sides and angles.	
			Identify 2D shapes on the surface of 3D shapes.			Use the properties of rectangles to deduce related facts and find missing lengths and angles.	
Drawing and constructing shapes				Draw 2D shapes and make 3D shapes using modelling materials.	Complete a simple symmetric figure with respect to a specific line of symmetry.		Draw 2D shapes using given dimensions and angles. Recognise, describe, and build simple 3D shapes, including making nets.
Comparing and classifying shapes			Compare and sort common 2D and 3D shapes and everyday objects.		Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes.		Compare and classify geometric shapes based on their properties and sizes.
Angles				Recognise angles as a property of shape or a description of a turn.	Identify acute and obtuse angles and compare and order angles up to two right angles by size.	Draw given angles and measure them in degrees.	Find unknown angles in any triangles, quadrilaterals, and regular polygons.
				Identify right angles. Recognise that two right angles make a half turn, three make three quarters and four a complete turn.		Identify:	
				Identify whether angles are greater than or less than a right angle.		<ul style="list-style-type: none"> Angles at a point on a straight line and half a turn (total 180°) Angles at a point and one whole turn (total 360°) Other multiples of 90° Know angles are measured in degrees; estimate and compare acute, obtuse, and reflex angles.	

Geometry

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Lines				Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.	Identify lines of symmetry in 2D shapes presented in different orientations.			
Position, direction, and movement		Describe position, directions, and movement, including half, quarter, and three-quarter turns.	Use mathematical vocabulary to describe position, direction, and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half, and three-quarter turns (clockwise and anti-clockwise).		Describe positions on a 2D grid as coordinates in the first quadrant.	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.	Describe positions on the full coordinate grid (all four quadrants).	
					Describe movements between positions as translations of a given unit to the left/right and up/down.			Draw and translate simple shapes on the coordinate plane and reflect them in the axes.
					Plot specified points and draw sides to complete a given polygon.			
Pattern			Order and arrange combinations of mathematical objects in patterns and sequences.					
Vocab		Same as EYFS, plus: 2D shapes 3D shapes two- dimensional three- dimensional cuboid cube pyramid cone cylinder sphere half turn quarter turn three-quarter turn left right up down top/middle/bottom on top of/in front of above/between/around near/close/far forwards/backwards inside/outside	Same as EYFS & Year 1, plus: properties common line symmetry vertical line edges/faces/vertices pentagon hexagon heptagon octagon kite rhombus polygon square-based pyramid triangular pyramid triangular prism rectangular prism pentagonal prism hexagonal prism octagonal prism rotation right angle clockwise/anti-clockwise order/arrange/sequence	Same as EYFS & KS1, plus: angle turn right angles quarter of a turn half-turn three quarters of a turn complete turn horizontal lines vertical lines perpendicular lines parallel lines	Same as previous year groups, plus: lines of symmetry symmetric figure classify geometric shapes quadrilaterals acute angle obtuse angle co-ordinates quadrant grid translate translation axis x- axis/y-axis spaces unit plot point polygon isosceles/equilateral/scalene parallelogram trapezium	Same as previous year groups, plus: angles measure degrees missing lengths missing angles regular polygons irregular polygons degrees estimate compare reflex angle point straight line multiples reflection	Same as previous year groups, plus: radius diameter circumference nets four quadrants	

Statistics

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Interpreting, constructing, and presenting data			Interpret and construct simple: <ul style="list-style-type: none"> • Pictograms • Tally charts • Block diagrams • Simple tables 	Interpret and present data using: <ul style="list-style-type: none"> • Bar charts • Pictograms • tables 	Interpret and present discrete data using appropriate graphical methods, including: <ul style="list-style-type: none"> • bar charts • time graphs 	Complete, read, and interpret information in: <ul style="list-style-type: none"> • tables, including timetables 	Interpret and construct: <ul style="list-style-type: none"> • pie charts • line graphs and use to solve problems.
			Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.				
			Ask and answer questions about totalling and compare categorical data.				
Problem-solving				Solve one-step and two-step questions such as 'How many more?' and 'How many fewer?' using information presented in scaled bar charts, pictograms, and tables.	Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables, and other graphs.	Solve comparison, sum and difference problems using information presented in a line graph.	Calculate and interpret the mean as an average.
Vocab			interpret construct pictogram tally chart block diagrams horizontal vertical x- axis y-axis key title chart title simple tables ask answer questions counting objects category sort quantity total compare data	Same as EYFS & KS1, plus: present presented graph statistics bar charts tables solve one- step questions two- step questions information scale	Same as previous year groups, plus: time graphs comparison problems	Same as previous year groups, plus: timetables line graph	Same as previous year groups, plus: pie chart mean average

Ratio and Proportion

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
<p>Problem-solving</p>							<p>Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts.</p> <p>Solve problems involving the calculation of percentages of whole numbers or measures such as 15% of 360 and the use of percentages for comparison.</p> <p>Solve problems involving similar shapes where the scale factor is known or can be found.</p> <p>Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.</p>
<p>Vocab</p>							<p>ratio proportion size quantity missing value integer multiplication division multiply divide solve problem calculate percentage comparison unequal sharing grouping fractions multiples</p>

Algebra

Skill	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Equations							Express missing number problems algebraically.
							Find pairs of number that satisfy number sentences involving two unknowns.
							Enumerate all possibilities of combinations of two variables.
Formulae					Perimeter can be expressed algebraically as $2(a + b)$ where a and b are the dimensions in the same unit.		Use simple formulae.
Sequences							Generate and describe linear number sequences.
Vocab					perimeter algebra algebraically		Same as previous year groups, plus: missing number problem pairs number sentence variables combination possibility enumerate equation formulae generate linear number sequence