'With Christ as our Guide, Learning Together, Loving God and Each Other, Becoming the Best We Can Be.'

Primary Phase Progression Map: Maths

	EYFS	Key Stage 1		Lower Key Stage 2		Upper Key Stage 2	
	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
PLACE VALUE							
Counting	**Verbally count beyond 20, recognising the pattern of the counting system**	**Count to and across 100, forwards and backwards, beginning from 0 or 1, or from any given number** Count numbers to 100 in numerals; count in multiples of twos, fives ad tens	Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward	Count from 0, in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number	Count in multiples of 6, 7, 9, 25 and 1,000 Count backwards through 0 to include negative numbers	Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 Count forwards and backwards with positive and negative whole numbers, including through zero	
Represent	**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 objects and pictorial representations** Read and write numbers to 100 in numerals Read and write numbers from 1 to 20 in numerals and words	Read and write numbers to at least 100 in numerals and words **Identify, represent and estimate numbers using different representations, including the number line**	Read and write numbers up to 1,000 in numerals and in words Identify, represent and estimate numbers using different representations	Identify, represent and estimate numbers using different representations Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value	**Read, write, (order and compare) numbers to at least 1,000,000 and determine the value of each digit** Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals	**Read, write, (order and compare) numbers up to 10,000,000 and determine the value of each digit**
Use Place value and compare	**Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity**	Given a number, identify one more and one less	**Recognise the place value of each digit in a two-digit numbers (tens, ones)** **Compare and order numbers from 0 up to 100; Use <, > and = signs**	**Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)** **Compare and order numbers up to 1,000**	Find 1,000 more or less than a given number **Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens and ones)** **Order and compare numbers beyond 1,000**	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**
Problems and Rounding			Use place value and number facts to solve problems	Solve number problems and practical problems involving these ideas	**Round and number to the nearest 10, 100 or 1,000** Solve number and practical problems that involve all of the above with increasingly large positive numbers	Interpret negative numbers in context Round any number up to 1,000,000 to the nearest 10, 100, 1,000 10,000 and 100,000 Solve number problems and practical problems that involve all of the above	Round any whole number to a required degree of accuracy Use negative numbers in context, and calculate intervals across zero Solve number and practical problems that involve all of the above

Vocabulary explicitly taught and introduced	**Count** **Subitise** **Order/ordinal** **Compare** **Forwards, Backwards** **Numerals, Digit** **One more, One less** **Equal to, More than, Less than (fewer)**	**Sort** **Represent** **Multiples** **Partitioning** **Ones** **Tens**	**Count in steps** **Count in multiples** **Place value** **Estimate** **Compare**	**Ascending** **Descending** **10 or 100 more** **10 or 100 less** **hundreds**	**Negative numbers** **Roman numerals** **1,000 more** **1,000 less** **Thousands** **Round**	**Ten thousands** **One hundred thousands** **Powers of integer**	**Millions** **Ten millions**
ADDITION AND SUBTRACTION							
Recall, Represent, Use	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	**Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs** **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 Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	**Estimate the answer to a calculation and use inverse operations to check answers**	Estimate and use 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	
Calculations		Add and subtract one-digit and two-digit numbers to 20, including zero	**Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:** ➢ A two-digit number and ones ➢ A two-digit number and tens ➢ **Two two-digit numbers** ➢ Adding three one-digit numbers	Add and subtract numbers mentally including: ➢ A three-digit number and ones ➢ A three-digit number and tens ➢ A three-digit number and hundreds **Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction**	**Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate**	**Add and subtract whole numbers, with more than 4 digits, including using formal written methods (columnar addition and subtraction)** Add and subtract numbers mentally with increasingly large numbers	Perform mental calculations, including with mixed operations and large numbers **Use their knowledge of the order of operations to carry out calculations involving the four operations**

Solve Problems		Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9	Solve problems with addition and subtraction: ➢ 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, using number facts, place value, and more complex addition and subtractions	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 problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	**Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why**
Vocabulary explicitly taught and introduced	**Add** **Plus** **Altogether** **Total** **Takeaway/minus** **Number bonds** **Part** **Whole** **Digit**	**Addition/add** **Subtraction** **Difference** **Equals** **Facts** **Problems** **Missing number problems** **2-digit number** **inverse**	**Sum** **3-digit number** **Commutative**	**Column addition** **Column subtraction** **Exchange** **Estimate**	**4-digit number** **Operations** **methods**		
MULTIPLICATION AND DIVISION							
Recall, Represent, Use	Explore and represent patterns within numbers up to 10, including even and odds, double facts and how quantities can be distributed equally		**Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers** **Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot**	**Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables**	**Recall multiplication and division facts for multiplication tables up to 12 x 12** Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers 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** Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Recognise and use square numbers, and the notation for squared (2) and cubed (3)	Identify common factors, common multiples and prime numbers Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy

Calculations			**Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs**	**Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods**	**Multiply two-digit and three-digit numbers by a one-digit number using formal written layout**	**Multiply numbers up to 4 digits by a one-**or two-**digit number using a formal written method, including long multiplication for two-digit numbers** Multiply and divide umbers mentally drawing upon known facts **Divide numbers up to 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context** **Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000**	Multiply multi-digit numbers up to two-digit 4 digits by a two-digit whole number using the formal written method of long multiplication Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context Perform mental calculations, including with mixed operations and large numbers
Solve Problems		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 involving 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 two-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 their knowledge of factors and multiples, squares and cubes Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates	Solve problems involving addition, subtraction, multiplication and division
Combined Operations						Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	Use their knowledge of the order of operations to carry out calculations involving the four operations
Vocabulary explicitly taught and introduced	**Double, Half** **Twice as many** **Equal, Unequal** **Share, Group** **Odd, Even**	**Multiplication** **Division** **Arrays**	**Multiplication tables** **Commutative** **Repeated addition**	**Exchange** **Mathematical statements** **Missing number problems** **Integer scaling problems** **Correspondence problems** **Derived facts**	**Factor pairs** **Formal written layout** **Distributive law** **Remainders**	**Multiples, Factors** **Prime numbers** **Square numbers** **Cube numbers** **Short division** **Product, Dividend, Divisor** **Quotient** **Operations**	**Multi-digit numbers** **Long division**

FRACTIONS							
Recognise and Write		Recognise, find and name a half as one of two equal parts of an object, shape or quantity Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity	Recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit number or quantities by 10 **Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators** Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators	Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.	**Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths** Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number (2/5 + 4/5 = 6/5 = 1 1/5)	
Compare			Recognise the equivalence of 2/4 and ½	Recognise and show, using diagrams, equivalent fractions with small denominators Compare and order unit fractions, and fractions with the same denominators	Recognise and show, using diagrams, families of common equivalent fractions	Compare and order fractions whose denominators are all multiples of the same number	**Use common factors to simplify fractions; use common multiples to express fractions in the same denomination** **Compare and order fractions, including fractions > 1**
Calculations			Write simple fractions for example, ½ of 6 = 3	**Add and subtract fractions with the same denominator within one whole (5/7 + 1/7 = 6/7)**	**Add and subtract fractions with the same denominator**	Add and subtract fractions with the same denominator and denominators that are multiples of the same number Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Multiply simple pairs of proper fractions, writing the answer in its simplest form (1/4 x ½ = 1/8) Divide proper fractions by whole numbers (1/3 ÷2 = 1/6)
Solve Problems				Solve problems that involve all of 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		

Vocabulary explicitly taught and introduced		**Whole** **Half** **Quarter** **Equal parts**	**Three quarters** **Third** **Equivalent fractions** **Unit fractions** **Non-unit fractions** **Numerator, Denominator** **One whole**	**Tenths**	**Decimal equivalence** **Hundredths** **Convert** **Proper fractions** **Improper fractions** **Decimal point**	**Fifth** **Thousandths** **Mixed numbers** **Per-cent %** **Factors** **Integer** **Complements**	
DECIMALS							
Recognise and Write					Recognise and write decimal equivalents of any number of tenths or hundredths **Recognise and write decimal equivalents to ¼, ½, ¾**	**Read and write decimal numbers as fractions (0.71=71/100)** **Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents**	Identify the value of each digit in numbers given to three decimal places
Compare					Round decimals with one decimal place to the nearest whole number Compare numbers with the same number of decimal places up to two decimal places	Round decimals with two decimal places to the nearest whole number and to one decimal place **Read, write, order and compare numbers with up to three decimal places**	
Calculations and Problems					Find the effect of dividing a one or two-digit numbers by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths	Solve problems involving number up to three decimal places	Multiply and divide numbers by 10, 100 and 1,000 giving answers up to three decimal places Multiply one-digit numbers with up to two decimal places by whole numbers Use written division methods in cases where the answer has up to two decimal places Solve problems which require answers to be rounded to specified degrees of accuracy

Fractions, Decimals and Percentages					Solve simple measure and money problems involving fractions and decimals to two decimal places	Recognise the percent (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal Solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 24/5 and those fractions with a denominator of a multiple of 10 or 25	Associate a fraction with division and calculate decimal fraction equivalents (0.375 for a simple fraction e.g. 3/8) Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
Vocabulary explicitly taught and introduced		**Whole** **Half** **Quarter** **Equal parts**	**Three quarters** **Third** **Equivalent fractions** **Unit fractions** **Non-unit fractions** **Numerator, Denominator** **One whole**	**Tenths**	**Decimal equivalence** **Hundredths** **Convert** **Proper fractions** **Improper fractions** **Decimal point**	**Fifth** **Thousandths** **Mixed numbers** **Per cent%** **Factors** **Integer** **Complements**	
RATIO AND PROPORTION							
Ratio and Proportion							**Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts** Solve problems involving the calculation of percentages (for example, of measures, and such as 15% of 360) and the use of percentages for comparison Solve problems involving similar shapes where the scale factor is known or can be found Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

Vocabulary explicitly taught and introduced							**Relative size** **Missing values** **Integer multiplication** **Percentages** **Scale factor** **Unequal sharing and grouping**
ALGEBRA							
Algebra		*NB: Although algebraic notation is not introduced until Year 6, algebraic thinking starts much earlier in the 'missing number' objectives from Years 1, 2 and 3:*					Use simple formulae Generate and describe linear number sequences Express missing number problems algebraically Find pairs of numbers that satisfy an equation with two unknowns Enumerate possibilities of combinations of two variables
		Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □ - 9	Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	Solve problems including missing number problems			
Vocabulary explicitly taught and introduced							**Formulae** **Linear number sequences** **Algebraically** **Equation** **Unknowns** **Combinations** **Variables**
MEASUREMENT							
Using Measures		Compare, describe and solve practical problems for: Lengths and heights (for example, long/short, longer/shorter, tall/short, double/half); Mass/weight (for example, heavy/light, heavier than, lighter than); Capacity and volume (for example, full/empty, more than, less than, half, half full, quarter); Time (for example, quicker, slower, earlier, later). Measure and begin to record the following: Lengths and heights; Mass/weight; Capacity and volume; Time (hours, mins, seconds).	Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels Compare and order lengths, mass, volume/capacity and record the results using <,> and =	Measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)	Convert between different units of measure (for example, kilometre to metre; hour to minute) Estimate, compare and calculate different measures	Convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints Use all four operations to solve problems involving measure (for example, length, mass, volume, money) using decimal notation, including scaling	Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places Convert between miles and kilometres

Perimeter, Area, Volume				Measure the perimeter of simple 2-D shapes	Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres Find the area of rectilinear shapes by counting squares	Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres Calculate and compare the area of rectangles (including squares), and including using standard units, square centimetres (cm^2) and square metres (m^2) and estimate the area of irregular shapes Estimate volume (for example, using 1cm^3 blocks to build cuboids (including cubes) and cap	Recognise that shapes with the same areas can have different perimeters and vice versa Recognise when it is possible to use formulae for area and volume of shapes Calculate the area of parallelograms and triangles Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm^3) and cubic metres (m^3), and extending to other units (mm^3 and km^3)
Vocabulary explicitly taught and introduced	**Measure** **Wid(er)** **Narrow(er)** **Compare** **Long(er)(est)** **Short(er)(est)** **length**	**Compare**	**Standard units** **Estimate** **Order** **Record results** **Centimetre cm** **Metre m**	**Millimetre mm** **perimeter**	**Kilometres km** **Rectilinear figure** **Area**	**Decimal notation** **Scaling** **Metric Units** **Imperial Units** **Inches** **Compound shape** **Irregular shapes** **Square centimetres** **Square metres**	**Conversion** **Miles** **Formulae** **Parallelograms** **Triangles** **Feet**
	Height **Long(er)/short(er)** **Tall(er)/short(er)** **Weight** **Capacity** **Heavy/light** **Heavier than** **Lighter than** **Big/bigger/biggest** **Full/empty** **More than** **Less than** **Half/half full**	**Mass** **Volume**	**Kilogram kg** **Gram g** **Quarter full** **Three quarters full** **Litres l** **Millilitres ml** **Temperature** **Celsius**			**Cubic centimetre** **Pounds** **Pints**	**Cubic metre** **Cubic millimetre** **Cubic kilometre** **Gallons** **Stones** **Ounces**

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 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	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	Use all four operations to solve problems involving measure (for example, money)	
Vocabulary explicitly taught and introduced		**Money** **Coins, Notes** **Pounds £, Pence p**	**Value** **Change**				
Time		Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening) Recognise and use language relating to dates, including days of the week, weeks, months and years Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	Compare and sequence intervals of time Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times Know the number of minutes in an hour and the number of hours in a day	Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12- hour 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; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight Known the number of seconds in a minute and the number of days in each month, year and leap year Compare durations of events (for example to calculate the time taken by particular events or tasks)	Read write and convert between analogue and digital 12- and 24-hour clocks 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	Use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa
Vocabulary explicitly taught and introduced	**Time** **Quicker, Slower** **Earlier, Later** **Before, After** **First, Next** **Today, Yesterday, Tomorrow** **Morning, Afternoon, Evening** **Day, Week** **Hour, Minutes**	**Chronological order** **Days of the week** **Months of the year** **Month** **Year** **O'clock** **Half past** **Second**	**Intervals of time** **Quarter past/to** **duration**	**Analogue clock** **Roman numerals** **12-hour clock** **24-hour clock** **a.m./p.m.** **Noon** **Midnight** **Leap year** **Digital**	**Convert**		

GEOMETRY							
2-D shapes		**Recognise and name common 2-D shapes (rectangles – including squares, circles and triangles)**	**Idenify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line** Identify 2-D shapes on the suface 3-D shapes (a circle n a cylinder and a triangle on a pyramid) Compare and sort common 2-D shapes and everyday objects	**Draw 2-D shapes**	**Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes** **Identify lines of symmetry in 2-D shapes presented in different orientations**	Distinguish between regular and irregular polygons based on reasoning about equal sides and angles Use the properties of rectangles to deduce related facts and find missing lengths and angles	**Draw 2-D shapes using given dimensions and angles** Compare and classify geometric shapes based on their properties and sizes Illustrate and name parts of circles including radius, diameter and circumference and know that the diameter is twice the radius
3-D shapes		**Recognise and name common 3-D shapes (cuboids - including cubes, pyramids and spheres)**	Recognise and name common 3-D shapes (cuboids - including cubes, pyramids and spheres) **Compare and sort common 3-D shapes and everyday objects**	Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe the,		Identify 3-D shapes, including cubes and other cuboids, from 2-D representations	Recognise, describe and build simple 3-D shapes including making nets
Vocabulary explicitly taught and introduced	**2-D shapes** **Rectangle** **Square** **Circle** **Triangle** **Characteristics** **3-d shapes** **Cuboids** **Cubes** **Cone** **Spheres** **Curved** **Straight** **Flat**	**Sides** **Corners** **Properties** **Pyramids** **faces**	**Pentagon** **Hexagon** **Line of symetry** **Properties** **Cylinder** **Edges** **Vertices** **Vertex**	**Right-angle triangle** **Heptagon** **Octagon** **Polygon** **Properties** **Prism**	**Isosceles,** **Equilateral** **Scalene** **Trapezium** **Rhombus** **Parallelogram** **Kite** **Geometric shapes** **Quadrilaterals**	**Regular polygon** **Irregular polygon**	**Radius** **Diameter** **Circumference** **Dimensions**

Angles and Lines				**Recognise angles as a property of shape or a description of a turn** Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle Identify horizontal and vertical lines and pairs of perpendicular and parallel lines	Identify acute and obtuse angles and compare and order angles up to two right angles by size **Identify lines of symmetry in 2-D shapes presented in different orientations** **Complete a simple symmetric figure with respect to a specific line of symmetry**	**Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles** Draw given angles and measure them in degrees Identify: ➢ Angles at a point and one whole turn (total 360°) ➢ Angles at a point on a straight line and ½ a turn (total 180°) ➢ Other multiples of 90°	Find unknown angles in any triangles, quadrilaterals and regular polygons Recognise angles where they meet at a point, are on a straight line, or are vertically opposite and find missing angles
Vocabulary explicitly taught and introduced				**Orientations** **Angles** **Acute angle** **Obtuse angle** **Turn** **Right angles** **Half turn** **Three quarters of a turn** **Greater than right angle** **Less than right angle** **Horizontal lines** **Vertical lines** **Perpendicular lines** **Parallel lines**		**Reflex angles** **Degrees** **One whole turn** **Angles on straight line** **Angles around a point** **Vertically opposite** **Missing angles**	
Position and Direction		Describe position, direction and movement including whole, half, quarter and three-quarter turns	Order and arrange combinations of mathematical objects in patterns and sequences 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 fr quarter, half and three-quarter turns (clockwise and anticlockwise)		**Describe the positions on a 2-D grid as coordinates in the first quadrant** **Describe movements between positions as translations of a given unit to the left/right and up/down**	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) Draw and translate simple shapes on the coordinate plane, and reflex them in the axis

Vocabulary explicitly taught and introduced	**Over, Under Between Around Through On Into Next to Behind Beneath, On top of Order Repeat Patterns**	**Position Direction Movement Whole turn Quarter turn Half turn Three-quarter turn**	**Clockwise/anti-clockwise Straight line Rotation Arrange Sequemces**		**Co-ordinates First quadrant Grid Translation Plot Polygon Axis**	**Reflection**	**Four quadrants Co-ordinate plane**
STATISTICS							
Present and Interpret			Interpret and construct simple pictograms, tally charts, block diagrams and simple tables	Interpret and present data using bar charts, pictograms and tables	Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	Complete, read and interpret information in tables, including timetables	Interpret and construct pie charts and line graphs and use these to solve problems
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 comparing categorical data	Solve one-step and two-step questions (*How many more? /How many fewer?*) using information presented in scaled bar charts and 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
Vocabulary explicitly taught and introduced			**Pictograms Tally chart Block diagram Category Sorting Totalling Comparing Horizontal Vertical**	**Table Bar chart One-step problem Two-step problem**	**Time graph Discrete data Continuous data Line graph Comparison problem Sum problem Different problem Calculate Interpret**	**Timetable Two0way tables**	**Pie chart Mean**