Forest Town Primary School

Maths Knowledge Progression Grid

Kind
Adventurous
Persevere
Responsible
Independent
Together

At Forest Town, we are mathematicians! We want our children to become quick and efficient in their mental arithmetic and choose the most efficient methods of working. We want to provide our children with meaningful maths where the children are able to apply a range of mathematical strategies to different contexts, explore different ways of working and develop a sense of curiosity through this exploration. We want our children to make mathematical connections in and outside of the classroom, to know which methods to use and to understand that maths is an integral part of life that they will use every day. By building a maths curriculum that promotes a 'mastery' first approach, we ensure knowledge is embedded so that the children can successfully solve mathematical problems. By doing this, they will have the confidence to use these skills in the real world.

At the end of KS2, a Forest Town child will have:

- Become independent in choosing and using the most efficient methods of calculation.
- An ability to show kindness by listening to other's approaches to problem-solving.
- The ability to work together to solve problems, appreciating that there might be more than one way of working.
- Become adventurous by challenging their own and other's mathematical thinking.
- The ability to persevere when challenge presents itself and to continue to work through different mathematical concepts.
- A desire to challenge themselves and be responsible in making decisions of how best to solve a problem.

MATHS

CURRICULUM LEADER

HANNAH WHITEHEAD

REVIEWED – SEPTEMBER 2024

Forest Town Primary School
Maths Knowledge & Skills Progression Grid (Based on White Rose Maths)
Reviewed 2024

Kind
Adventurous
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This is how our children's SUBJECT knowledge builds from EYFS to Year 6.

In order for pupils to become confident mathematicians, they need to have acquired a secure knowledge of number, how to manipulate number to allow them to calculate both mentally and using written methods. They should have a secure understanding of the four operations and develop a deep understanding of how to apply these to a range of problems in different contexts. As pupils progress, they should be exposed to a range of problems, including multi-step problems, where a range of mathematical skills are required.

We want our children to become confident mathematicians who are able to apply a range of mathematical skills to a range of contexts to enable them to become mathematicians in the real world.

EYFS	Y1	Y2	Y3	Y4	Y5	Y6
Place Value						
	Counting: Know how to count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number Know how to count numbers to 100 in numerals Know how to count in multiples of twos, fives and tens	**Counting:** Know how to count in steps of 2, 3 and 5 from 0 Know how to count in tens from any number, forward and backward	**Counting:** Know how to count from 0 in multiples of 4,8,50 and 100 Know how to find 10 or 100 more or less than a given number	**Counting:** Know how to count in multiples of 6,7,9,25 and 1000 Know how to count backwards through zero to include negative numbers	**Counting:** Know how to count forwards or backwards in steps of powers of 10 for any given number up to 1000000 Know how to count forwards and backwards with positive and negative whole numbers including through zero	**Counting:** As previous years
	Representing: Know how to represent numbers using objects and pictorial representations Know how to read and write numbers to 100 in numerals Know how to read and write numbers from 10 to 20 in numerals and words	**Representing:** Know how to read and write numbers to at least 100 in numerals and in words Know how to represent and estimate numbers using different representations, including the number line	**Representing:** Know how to represent and estimate numbers using different representations Know how to read and write numbers up to 1000 in numerals and words	**Representing:** Know how to present and estimate different numbers using different representations Know how to read Roman numerals to 100 (I to C) Know that over time, the numeral system changed to include the concept of zero and place value	**Representing:** Know how to read, write, order and compare numbers to at least 1000000 and determine the value of each digit Know how to read Roman numerals to 1000 (M) Know years written in Roman numerals	**Representing:** Know how to read and write numbers up to 10 000 000 Know the value of each digit in numbers up to 10 000 000
	Using and comparing: Know one more and one less of a given number	**Using and comparing:** Know the place value of each digit in a two-digit number (tens, ones) Know how to compare and order numbers from 0 up to 100, use <> and =signs	**Using and comparing:** Know the place value of each digit in a three-digit number (hundreds, tens, ones) Know how to compare and order numbers up to 1000	**Using and comparing:** Know how to find 1000 more or less than a given number Know the place value of each digit in a four-digit number (thousands, hundreds, tens and ones) Know how to order and compare numbers beyond 1000	**Using and comparing:** Know how to read, write, order and compare numbers to at least 1 000 000 and determine the value of each digit	**Using and comparing:** Know how to order and compare numbers up to 10 000 000 and determine the value of each digit
		Problem solving and rounding: Know how to use place value and number facts to solve problems	**Problem solving and rounding:** Know how to solve number problems and practical problems involving these ideas	**Problem solving and rounding:** Know how to round any number to the nearest 10, 100 or 1000 Know how to solve number and practical problems that involve their place value knowledge with increasingly large positive numbers	**Problem solving and rounding:** Know how to interpret negative numbers in context Know how to round any number up to1 000 000 to the nearest 10, 100, 1000, 10 000 and 1000 000 Know how to solve number problems and practical problems that involve all of their place value knowledge	**Problem solving and rounding:** Know how to round any whole umber to a required degree of accuracy Know how to use negative numbers in context and calculate intervals across zero Know how to solve number and practical problems that involve all their place value knowledge
Addition and Subtraction						

Recall, represent, use:	**Recall, represent, use:** Know how to read, write and interpret mathematical statements involving addition (+), subtraction (-) and equal (=) signs Know how to represent and use number bonds and related subtraction facts within 20	**Recall, represent, use:** Know how to recall and use addition and subtraction facts to 20 fluently, and derive and use related facts to 100 Know that addition of two numbers can be done in any order (commutative) Know about and use the inverse relationship between addition and subtraction Know how to use the inverse to check calculations and solve missing number problems	**Recall, represent, use:** Know how to estimate an answer to a calculation Know how to use the inverse operations to check answers	**Recall, represent, use:** Know how to estimate the answer to a calculation Know how to use the inverse operations to check answers	**Recall, represent, use:** Know how to use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy	**Recall, represent, use:** As previous years
Calculation:	**Calculation:** Know how to add and subtract one-digit and two-digit numbers to 20, including 0	**Calculation:** Know how to add and subtract mentally • two-digit and ones • two-digit and tens • two two-digit numbers three one-digit numbers	**Calculation:** Know how to add and subtract numbers mentally • three-digit and ones • three-digit and tens three-digit and hundreds	**Calculation:** Know how to add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction	**Calculation:** Know how to add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Know how to add and subtract numbers mentally with increasingly large numbers	**Calculation:** Know how to perform mental calculations, including with mixed operations and large numbers Know how to use their knowledge of the order of operations to carry out calculations involving the four operations
Problem Solving:	**Problem Solving:** Know how to solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7=?-9	**Problem Solving:** Know how to solve problems with addition and subtraction Know how to use concrete and pictorial representations, including those involving numbers, quantities and measures Know how to apply their knowledge when using written and mental methods Know how to use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	**Problem Solving:** Know how to solve problems, including missing numbers problems, involving multiplication and division, including positive integers scaling problems and correspondence problems	**Problem Solving:** Know how to solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why	**Problem Solving:** Know how to solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why Know how to solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	**Problem Solving:** Know how to solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why
Multiplication and Division						
Recall, represent, use:	**Recall, represent, use:**	**Recall, represent, use:** Know and use multiplication facts for 2, 5 and 10 multiplication tables Know the odd and even numbers in the 2, 5 and 10 multiplication tables Know that multiplication of two numbers can be done in any order (commutative) Know that division of one number by another cannot be done in any order	**Recall, represent, use:** Know and use multiplication and division facts for the 3,4 and 8 multiplication tables	**Recall, represent, use:** Know multiplication and division facts for multiplication tables up to 12 x 12 Know how to 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 Know how to use factor pairs and commutativity in mental communications	**Recall, represent, use:** Know multiples, factors and factors pairs Know prime numbers and prime factors Know how to establish composite numbers Know common multiples and factors Know square and cube numbers Know how to multiply by 10, 100 and 1000	**Recall, represent, use:** Know common factors, common multiples and prime numbers Know how to use factors to identify what a given number is divisible by Know how to use estimation to check answers and calculations and determine, in the context of the problem, an appropriate degree of accuracy
Calculation:	**Calculation:**	**Calculation:** Know how to calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs	**Calculation:** Know how to write and calculate mathematical statements for multiplication and division using the multiplication tales that they know	**Calculation:** Know how to multiply two-digit and three-digit numbers by a one-digit	**Calculation:** Know how to multiply up to 4 digits by a one- and two-digit number using a formal	**Calculation:** Know how to multiply multi-digit numbers up to 4 digits by a two-digit

			(two-digit numbers times one-digit numbers) Know how to use formal written methods to calculate mathematical statements for multiplication and division	number using the formal written layout	written method, including long multiplication for two-digit numbers Know how to multiply and divide numbers mentally drawing upon known facts Know how to 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 Know how to multiply and divide numbers and those involving decimals by 10, 100 and 1000	whole number using the formal written method of long multiplication Know how to divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division and interpret remainders, fractions or by rounding, as appropriate for the context Know how to 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 Know how to perform mental calculations, including mixed operations and large numbers
Problem Solving:	**Problem Solving:** Know how to solve one-step problems involving multiplication and division, by calculating the answers using concrete objects, pictorial representations and arrays	**Problem Solving:** Know how to solve problems which involve multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts	**Problem Solving:** Know how to solve problems, including missing numbers problems, involving multiplication and division, including positive integers scaling problems and correspondence problems	**Problem Solving:** Know how to solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by one-digit, integer scaling problems Know how to solve problems with harder correspondence problems such as n objects are connected to m objects	**Problem Solving:** Know how to solve problems involving multiplication and division including using their knowledge of factors, multiples, squares and cubes Know how to solve problems involving multiplication and division, including simple scaling fractions and problems involving simple rates	**Problem Solving:** Know how to solve problems involving addition, subtraction, multiplication and division
Combined operations:	**Combined operations:**	**Combined operations:**	**Combined operations:**	**Combined operations:**	**Combined operations:** Know how to solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign	**Combined operations:** Know how to use their knowledge of the order of operations to carry out calculations involving the four operations
Fractions						
Recognise and write:	**Recognise and write:** Know how to find and name a half as one of two equal parts of an object, shape or quantity Know how to find and name a quarter as one of four equal parts of an object, shape or quantity	**Recognise and write:** Know how to recognise, find and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity	**Recognise and write:** Know how to count up and down in tenths Know that tenths arise from dividing an object into 10 equal parts Know that tenths arise from dividing one-digit numbers or quantities by 10 Know how to find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators Know how to use fractions as numbers: unit fractions and non-unit fractions with small denominators	**Recognise and write:** Know how to count up and down in hundredths Know that hundredths arise when dividing one object by one hundred Know that hundredths arise by dividing tenths by ten	**Recognise and write:** Know how to identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Know how to recognise mixed numbers and improper fractions and convert from one form Know how to write mathematical statements >1 as a mixed number (for example, 2/5 +4/5 = 6/5 = 1 1/5)	**Recognise and write:** As previous
Compare:	**Compare:**	**Compare:** Know the equivalence of 2/4 and 1/3	**Compare:** Know how to use diagrams to show equivalents fractions with small denominators Know how to compare and order unit fractions, and fractions with the same denominators	**Compare:** Know how to use diagrams to show families of common equivalent fractions	**Compare:** Know how to compare and order fractions whose denominators are all multiples of the same number	**Compare:** Know how to use common factors to simplify fractions Know how to use common multiples to express fractions in the same denomination

						Know how to compare and order fractions, including fractions >1
Calculation:	**Calculation:**	**Calculation:** Know how to write simple fractions (½ of 6 = 3)	**Calculation:** Know how to add and subtract fractions with the same denominator within one whole (5/7 + 1/7 =6/7)	**Calculation:** Know how to add and subtract fractions with the same denominator	**Calculation:** Know how to add and subtract fractions with the same denominator and denominators that are multiples of the same number Know how to multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams	**Calculation:** Know how to add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Know how to multiply simple pairs of proper fractions, writing the answer in its simplest form Know how to divide proper fractions by whole numbers
Problem Solving:	**Problem Solving:**	**Problem Solving:**	**Problem Solving:** Know how to use their knowledge about fractions to solve problems	**Problem Solving:** Know how to solve problems involving increasingly harder fractions Know how to calculate quantities and fractions where the answer is a whole number	**Problem Solving:**	**Problem Solving:**
Decimals						
Recognise and write:	**Recognise and write:**	**Recognise and write:**	**Recognise and write:**	**Recognise and write:** Know and write decimal equivalents of any number of tenths and hundredths Know and write decimal equivalents to ¼, ½, 3/4	**Recognise and write:** Know how to read and write decimal numbers as fractions (0.71 = 71/100) Know how to recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents	**Recognise and write:** Know the value of each digit on numbers given to three decimal places
Compare:	**Compare:**	**Compare:**	**Compare:**	**Compare:** Know how to round decimals with one decimal place to the nearest whole number Know how to compare numbers with the same number of decimals places up to two decimal places	**Compare:** Know how to round two decimals with two decimal places to the nearest whole number and to one decimal place Know how to read, write, order and compare numbers with up to three decimal places	**Compare:** Know how to multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places Know how to multiply one-digit numbers up to two decimal places by whole numbers Know how to use written division methods in cases where the answer has up to two decimal places Know how to solve problems which require answers to be rounded to specified degrees of accuracy
Calculation and problem solving:	**Calculation and problem solving:**	**Calculation and problem solving:**	**Calculation and problem solving:**	**Calculation and problem solving:** Know the effect of dividing a one or two-digit number by 10 and 100 Know how to identify the value of digits in the answer as ones, tenths and hundredths	**Calculation and problem solving:** Know how to solve problems involving number up to three decimal places	**Calculation and problem solving:** Know how to calculate decimal fraction equivalents by associating fractions with division (3/8 = 0.375) Know and use equivalences between simple fractions, decimals and percentages, including in different contexts
Fractions, decimals and percentages:	**Fractions, decimals and percentages:**	**Fractions, decimals and percentages:**	**Fractions, decimals and percentages:**	**Fractions, decimals and percentages:** Know how to solve simple measure and money problems involving	**Fractions, decimals and percentages:** Know and recognise the percent symbol (%) and understand that percent relates to 'number of parts per hundred'	**Fractions, decimals and percentages:** Know how to solve problems involving the relative sizes of two quantities where

				fractions and decimals to two decimal places	Know how to write percentages as a fraction with a denominator 100 and as a decimal Know how to solve problems which require knowing percentage and decimal equivalents of ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25	missing values can be found by using integer multiplication and division facts Know how to solve problems involving calculations of percentages (15% of 360) and the use of percentages for comparison Know how to solve problems involving similar shapes where the scale factor is known or can be found Know how to solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Ratio and Proportion						
						Know how to solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts Know how to solve problems involving the calculation/use of percentages for comparison Know how to solve problems involving similar shapes where the scale factor is known or can be found Know how to solve problems involving unequal sharing and grouping using knowledge of fractions and multiples
Algebra						
						Know how to use simple formulae Know how to describe linear number sequences Know how to express missing number problems algebraically Know how to find pairs of numbers that satisfy an equation with two unknowns Know how to enumerate possibilities of combinations of two variables
Measurement						
Using measures:	**Using measures:** Know how to compare, describe and solve practical problems for • Lengths and heights (long/short, longer/shorter, tall/short, double/half) • Mass/weight (heavy/light, heavier than, lighter than) ➢ Capacity and volume (full/empty, more than, less than, lighter than) • Capacity and volume (than, less than, half, half full, quarter) • Time (quicker, slower, earlier, later) • Know how to measure and begin to record the following	**Using measures:** Know which appropriate standard units to estimate and measure 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 Know how to compare and order lengths, mass, volume/capacity and record the results <, > and =	**Using measures:** Know how to measure, compare, add and subtract lengths (m/cm/mm), mass (kg/g) volume/capacity (l/ml)	**Using measures:** Know how to convert between different units of measure (km to m; hour to minute) Know how to estimate, compare and calculate different measures	**Using measures:** Know how to convert between different units of metric measure Know how to use approximate equivalence between metric units and common imperials units such as inches, pounds and pints Know how to use all four operations to solve problems involving measuring decimal notation, including scaling	**Using measures:** Know how to solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate Know how to use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a similar unit of measure to a larger units, and vice versa using decimal notation to up to three decimal places Know how to convert between miles and kilometres

	○ Lengths and heights ○ Mass/weight ○ Capacity and volume Time (hours, minutes, seconds)					
Money:	**Money:** Know the value of different denominations of coins and notes	**Money:** Know how to use the symbols for pounds (£) and pence (p) Know how to combine amounts to make a particular value Know that different combinations of coins can equal the same amounts of money Know how to solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change	**Money:** Know how to add and subtract amounts of money to give change, using both £ and p in practical contexts	**Money:** Know how to estimate, compare and calculate different measures including money in pounds and pence	**Money:** Know how to use all four operations to solve problems involving measure	**Money:**
Time:	**Time:** Know how to sequence events in chronological order using language (before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening Know how to use language relating to dates, including days of the week, weeks, months and years Know how to tell the time to the hour and half past the hour Know how to show the time to the hour and half past the hour by drawing hands on a clock face	**Time:** Know how to sequence intervals of time Know how to tell and write the time to five minutes, including quarter past/to the hour Know how to show these times on a clock face by drawing hands on the clock Know the number of minutes in an hour and the number of hours in a day	**Time:** Know how to tell and write the time from an analogue clock, including using roman numeral from I to XII, and 12-hour and 24-hour clocks Know how to 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 0'clock, am/pm, morning, afternoon, noon and midnight Know the number of seconds in a minute and the number of days in each month, year and leap year Know how to compare durations of events	**Time:** Know how to read, write and convert time between analogue and digital 12- and 24-thour clocks Know how to solve problems involving converting from h ours to minutes; minutes to seconds; years to months; weeks to days	**Time:** Know how to solve problems converting between units of time	**Time:** Know how to 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
Perimeter, Area and Volume:	**Perimeter, Area and Volume:**	**Perimeter, Area and Volume:**	**Perimeter, Area and Volume:** Know how to measure the perimeter of simple 2-D shapes	**Perimeter, Area and Volume:** Know how to measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres Know how to calculate and compare the area of rectilinear shapes by counting squares	**Perimeter, Area and Volume:** Know how to measure and calculate perimeter of a composite rectilinear shapes in centimetres and metres Know how to 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 Know how to estimate volume using 1 cm^3blocks to build cuboids (including cubes) and capacity	**Perimeter, Area and Volume:** Know that shapes with the same areas can have different perimeters and vice versa Know that it is possible to use formulae for area and volume of shapes Know how to calculate the area of parallelograms and triangles Know how to 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)
Geometry						
2d shapes:	**2d shapes:** Know the name of common 2-D shapes (rectangles, including squares, circles and triangles)	**2d shapes:** Know the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Know which 2-D shapes can be found on the surface of 3-D shapes	**2d shapes:** Know how to draw 2-D shapes	**2d shapes:** Know how to compare and classify geometric shapes including quadrilaterals and triangles based on their properties and sizes	**2d shapes:** Know how to distinguish between regular and irregular polygons based on reasoning about equal sides and angles	**2d shapes:** Know how to draw 2-D shapes using given dimensions and angles

		(a circle on a cylinder and a triangle on a pyramid) Know how to compare and sort common 2-D shapes and everyday objects		Know which lines are symmetrical in 2-D shapes even when they presented in different orientations	Know use the properties of rectangles to deduce related facts and find missing lengths and angles	Know how to compare and classify geometric shapes based on their properties and sizes Know the different parts of a circle radius, diameter, circumference Know that the diameter is twice the radius
3d shapes:	**3d shapes:** Know the name of common 3-D shapes (cuboids, including cubes, pyramids and spheres)	**3d shapes:** Know and name common 3-D shapes (cuboids, including cubes, pyramids and spheres) Know how to sort common 3-D shapes and everyday objects	**3d shapes:** Know how to make 3-D shapes using modelling materials Know how to recognise 3-D shapes in different orientations and describe them	**3d shapes:**	**3d shapes:** Know 3-D shapes, including cubes and other cuboids, from 2-D representations	**3d shapes:** Know how to build simple 3-D shapes, including making nets
Angles and Lines:	**Angles and Lines:**	**Angles and Lines:**	**Angles and Lines:** Know that angles ae a property of a shape or a description of a turn Know that two right angles make a half-turn, three make three quarters of a turn and four a complete turn Know whether angles are greater than or less than a right angle Know which lines are horizontal and vertical Know which pairs of lines are perpendicular and parallel	**Angles and Lines:** Know which angels are acute and obtuse Know how to order angles up to two right angles by size Know which lines are symmetrical in 2-D shapes even when they are presented in different orientations Know how to complete a simple symmetric figure with respect to a specific line of symmetry	**Angles and Lines:** Know angles are measured in degrees Know acute, obtuse and reflex angles and compare these Know how to draw given angles and measure them in degrees Know angles at a point and one whole turn total 360° Know angles at a point on a straight line and ½ turn total 180° Know other multiples of 90°	**Angles and Lines:** Know how to find unknown angles in any triangles, quadrilaterals and regular polygons Know and name the angles where they meet at a point, are on a straight line, or are vertically opposite Know how to find missing angles
Position and Direction:	**Position and Direction:** Know how to describe the position, direction and movement, including whole, half, quarter and three-quarter turns	**Position and Direction:** Know how to order and arrange combinations of mathematical objects in patterns and sequences Know which 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)	**Position and Direction:**	**Position and Direction:** Know how to describe positions on a 2-D grid as coordinates in the first quadrant Know how to describe movements between positions as translations of a given unit to the left/right and up/down Know how to plot specified points and draw sides to complete a given polygon	**Position and Direction:** Know the position of a shape following a reflection or translation, using appropriate language and that the shape has not changed	**Position and Direction:** Know the position of shapes on the full coordinate grid (all four quadrants) Know how to draw and translate simple shapes on the coordinate plane, and reflect them in the axes
Statistics						
Present and Interpret:	**Present and Interpret:**	**Present and Interpret:** Know how to interpret and construct simple pictograms, tally charts, block diagrams and simple tables	**Present and Interpret:** Know how to present data using bar charts, pictograms and tables	**Present and Interpret:** Know how to interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs	**Present and Interpret:** Know how to interpret information in tables, including timetables	**Present and Interpret:** Know how to interpret and construct pie charts and line graphs Know how to use pie charts and line graphs to solve problems
Problem Solve:	**Problem Solve:**	**Problem Solve:** Know how to count the number of objects in each category to ask and answer simple questions Know how to sort categories by quantity to ask and answer simple questions	**Problem Solve:** Know how to solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables (How much more? How many fewer?	**Problem Solve:** Know how to solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs	**Problem Solve:** Know how to solve comparison, sum and difference problems using information presented in a line graph	**Problem Solve:** Know how to calculate and interpret the mean as an average