Progression of Knowledge, Skills and Vocabulary Year 2								
	Number and place value	**Addition and subtraction**	**Multiplication and Division**	**Fractions**	**Measurement**	**Geometry: Shape**	**Geometry: Position and Direction**	**Statistics**
I know…	Each digit in a number represents a different value and can identify them all to a hundred. How to count forward/backwards in multiples of 2, 3, 5 and 10 we must increase/decrease by the same difference each time. There are ten hundreds in a thousand. < Means smaller than, > means bigger than and = represents the same value.	My number bonds to 100. Formal/ informal methods of calculation and how column addition/subtraction is applied for larger numbers. How to mentally calculate additions and subtractions. Addition can be done in any order, but to perform subtraction the smaller number has to be taken from the larger number. Subtraction is the inverse of addition.	Symbols represent mathematical commands multiplication (×), division (÷) and equals (=) signs Number sentences can be shown through materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts. 2, 5 and 10 times tables and their division facts. The multiplication of two numbers can be done in any order.	A length, shape, set of objects or quantity can be split up into equal parts and that these are called fractions. When we split a shape into: 2 parts = ½, 4 parts= ¼ 3 parts = 1/3. When writing a fraction, the numerator expressing the amount of parts and the denominator express the total amount of parts. A fraction can hold an equal value with another fraction. I.e. 2/4 = ½	g, kg represent weight. cm,m,km represent distance/height, ml,l represent capacity Different instruments need to be selected to measure. Each coin or note holds a specific value and that we can substitute these for different coins with an equivalent value. Time can be written in 12/hour and 24 hour and the times although expressed with different number may represent the same time. I know that: there are 24 hours in a day and 60 minutes in an hour.	Symmetry is a reflection of an object across a mirror line. 2d shape properties include the number of sides, vertices (corners) and lines of symmetry. Lines of symmetry can be found in the centre of a 2d shape vertically and horizontally. 3-D shapes have defining features including the number of edges, vertices and faces. The faces of 3d shapes are mainly made up of 2d shapes.	Patterns and sequences occur when combinations of objects and sequences occur more than once. Rotation is described initially as a turn and progresses to right angles for quarter, half and three-quarter turns (The direction of clockwise and anti-clockwise.	Pictograms, tally charts, block diagrams and simple tables show data and information. Categories are used to separate information. Data is placed in charts and diagrams to provide a comparison.

So I can…	Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward Recognise the place value of each digit in a two-digit number (tens, ones) Identify, represent and estimate numbers using different representations, including the number line Compare and order numbers from 0 up to 100. Read and write numbers to at least 100 in numerals and in words Use place value and number facts to solve problems.	Solve problems with addition and subtraction: using concrete objects and pictorial representations Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones 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	Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including odd and even numbers Calculate mathematical statements for multiplication and division within the multiplication tables and write them Show that multiplication of two numbers can be done in any order and division of one number by another cannot Solve problems involving multiplication and division,	Recognise, find, name and write fractions ⅓, ¼, 2⁄4 and ¾ of a length, shape, set of objects or quantity Write simple fractions e.g. ½ of 6 = 3 and recognise the equivalence of two quarters and one half.	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). Compare and order lengths, mass, volume/capacity and record the results using >, < and = 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	Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] Compare and sort common 2-D and 3-D shapes and everyday objects.	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 Distinguish between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).	Interpret and construct simple pictograms, tally charts, block diagrams and simple tables 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.

		relationship between addition and subtraction and use this to check calculations and solve missing number problems.			solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change 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.			

Vocabulary I will use…	one-, two-, three-digit number place, place value thousand sequences continue partition sequence consecutive value, rule stands for, represents twenty-first, twenty-second…. exact, exactly round, nearest > and < numeral	addition, sum one hundred more one hundred less subtraction tens boundary calculate, calculation symbol difference inverse	lots of, groups of, x times, multiply, multiplied by multiplication multiple of product once, twice, three times…ten times as big… long… wide… as… repeated addition array row, column share equally one each, two each, three each… group in pairs, threes…tens equal groups of ÷ divide, divided by, divided into divisioninverse	part equal parts fraction one whole one half, two halves one quarter, two... three… four… quarters one third	£ and p note (and the names of notes) bought, sold, change measuring scale about further, furthest m to represent metre, centimetre (cm) tape measure mass, weight kilogram (kg), half-kilogram, gram (g) capacity, volume contains litre (l), half-litre, millilitre (ml) January, February…December fortnight minute second quarter to, quarter past digital clock, analogue clock temperature, thermometer, °C	Higher, lower straight line plan compass point north, south, east, west (NSEW) clockwise, anti-clockwise, right angle, straight line	property surface circular, triangular, rectangular oblong, pentagon, hexagon, octagon quadrilateral, kite, polygon, prism vertical/ horizontal edge, vertex, vertices 2D, 3D line of symmetry, mirror line, reflection	table, column, row, diagram tally, tally chart block diagram pictogram represent label, title scale most popular, least popular most common, least common category