Y2 Mathematics

TERM 1A		TERM 1B		TERM 2A		TERM 2B		TERM 3A		TERM 3B	
Number: Place value **Number: Addition and subtraction**		**Number: Addition and subtraction** **Number: Multiplication and division**		**Geometry: Properties of shapes** **Number: Multiplication and division** **Number: Fractions, decimals, and percentages**		**Measurement**		**Geometry: Position and direction** **Statistics**		**Number: Place value** **Number: Addition and subtraction** **Number: Multiplication and division**	
Key knowledge	**Key skills**	**Key knowledge**	**Key skills**	**Key knowledge**	**Key skills**	**Key knowledge**	**Key skills**	**Key knowledge**	**Key skills**	**Key knowledge**	**Key skills**
To know ten ones are called one ten. To know a two-digit number is made up of tens and ones. To know a number can be partitioned in many different ways – not just (for a two-digit number) into tens and ones. To know < means less than. To know > means greater than. To know = means the same as, balanced, equal to or equivalent. To know increasing means from smallest to largest. To know decreasing means from largest to smallest. To know all number bonds to 20. To know addition is bringing together two (or more) parts to make a whole (aggregation). To know addition can also be increasing an amount (augmentation). To know when I add any two odd numbers, the sum is always even. To know the language of addend + addend = sum. To know when I add any two even numbers, the sum is always even. To know when I add one odd and one even number, the total is odd. To know a tens number has a zero in the ones column (e.g. 10, 20, 30, 40, 50). To know when I add a tens number (10,20,30),	To be able to count in steps of 2,3,5 from 0, and in tens from any number, forward and backward. To be able to recognise the place value of each digit in a two-digit number (10s, 1s). To be able to identify, represent and estimate numbers using different representations, including the number line. To be able to compare and order numbers from 0 up to 100; use <, > and = signs. To be able to read and write numbers to at least 100 in numerals and in words. To be able to use place value and number facts to solve problems. To be able to solve problems with addition using concrete objects and pictorial representations, including those involving numbers, quantities and measures. To be able to apply increasing knowledge of mental and written methods. To be able to recall and use addition facts to 20 fluently, and derive and use related facts up to 100. To be able to add numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and 10s; 2 two-digit numbers; adding 3 one-digit numbers. To be able to show that addition of 2 numbers can be done in any order (commutative).	To know subtraction is partitioning a whole into two or more parts (partitioning), decreasing the whole (reduction) or finding the difference between two parts (difference). To know that when subtracting a tens number (10,20,30), the ones digit will not change. To know the language of minuend – subtrahend = difference. To know doubling is adding the same number twice. To know halving is splitting the whole into two equal parts. To know one structure of multiplication is repeated addition (e.g. 3x4 is 4 + 4 + 4 or 3 +3 + 3 + 3). To know multiplication is commutative – the position of the factors can change and the product stays the same. To know one structure of division is grouping (quotative) where a whole (the dividend) is split into equal groups (the divisor) and the number of groups are found (quotient). To know another structure of division is sharing (partitive) where the whole (the dividend) is shared equally between a given number of parts (the divisor) and the part size is found (quotient).	To be able to solve problems with subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures. To be able to apply my increasing knowledge of mental and written methods. To be able to recall and use subtraction facts to 20 fluently, and derive and use related facts up to 100. To be able to subtract numbers using concrete objects, pictorial representations and mentally, including: two-digit number and 1s; two-digit number and 10s; 2 two-digit numbers; adding 3 one-digit numbers. To be able to show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot. To be able to recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. To be able to recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. To be able to calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs.	To know a 2D shape has height and width; it is completely flat and you cannot pick it up. To know an object that has height, width and depth, like any object in the real world is a 3D shape. To know a line of symmetry is a line that cuts a shape exactly in half. To know one structure of division is grouping (quotative) where a whole (the dividend) is split into equal groups (the divisor) and the number of groups are found (quotient). To know another structure of division is sharing (partitive) where the whole (the dividend) is shared equally between a given number of parts (the divisor) and the part size is found (quotient). To know fractions are a part of something. To know fractions can be part of one thing or part of a group of things. To know fractions are also numbers in their own right in our linear number system. To know fractions can be written as one number on top of another. For example, a half is one over two ½. To know writing fractions this way is called fraction notation. To know a few fractions have special names: ½ is a half; ⅓ is a third; ¼ is a quarter; ⅕ is a fifth. To know the top part of the fraction is called the numerator.	To be able to identify and describe the properties of 2D shapes, including the number of sides, and line symmetry in a vertical line. To be able to identify and describe the properties of 3D shapes, including the number of edges, vertices and faces. To be able to identify 2D shapes on the surface of 3D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]. To be able to compare and sort common 2D and 3D shapes and everyday objects. To be able to recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers. To be able to calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs. To be able to show that multiplication of 2 numbers can be done in any order (commutative) and division of one number by another cannot. To be able to solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods, and multiplication & division facts, including problems in contexts. To be able to recognise, find and name a half as 1 of 2 equal parts of an	To know there are 60 seconds in a minute, 60 minutes in an hour, 24 hours in a day, 365 days in a (non-leap) year and 12 months in a year. To know time can be measured using a clock, watch, calendar and in other ways. To know the left-hand side of the clock shows to times (e.g. five to 6) and the right-hand side shows past times (e.g. ten past 5). To know the long hand is the minute hand. To know the shorter hand is the hour hand. To know grams (g) are a unit of measure. To know there are 1000g in a kilogram (kg). To know we use g to measure lighter objects and kg to measure heavier objects. To know different things/objects can be used to measure length. To know centimetres (cm) are a unit of measure. To know there are 100cm in a metre (m). To know we use cm to measure smaller objects and m to measure bigger objects. To know money is measured in pounds (£) and pence (p) To know there are 100p in £1. To know capacity is the measure of how much an object can hold. To know volume is the measure of how much liquid there is.	To be able to compare and sequence intervals of time. To be able to 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. To be able to 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. To be able to compare and order lengths, mass, volume/capacity and record the results using >, < and =. To be able to recognise and use symbols for pounds (£) and pence (p). To be able to combine amounts to make a particular value. To be able to find different combinations of coins that equal the same amounts of money. To be able to solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.	To know to turn to our left for anti-clockwise. To know to turn to our right for clockwise. To know there are two half turns in a full turn. To know there are four quarter turns in a full turn. To know a quarter turn is the same as a right angle. To know pictograms, bar charts and tally charts can be used to show how many of something there is.	To be able to 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). To be able to order and arrange combinations of mathematical objects in patterns and sequences. To be able to interpret and construct simple pictograms, tally charts, block diagrams and tables. To be able to ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. To be able to ask and answer questions about totalling and comparing categorical data.	To know halving is splitting the whole into two equal parts. To know my multiplication and division facts related to the 2, 5 and 10 times table.	To be able to halve by splitting the whole into two equal parts. To be able to recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems. To be able to recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.

	the ones digit will not change.			To be able to show that multiplication of 2 numbers can be done in any order (commutative) and division of one number by another cannot. To solve problems involving multiplication and division using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.	To know the bottom part of the fraction is called the denominator. To know equivalent fractions are worth the same as each other even though they look different.	object, shape or quantity. To be able to recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity. To be able to recognise, find, name and write fractions one-third, one-quarter, two-quarters and three-quarters of a length, shape, set of objects or quantity. To be able to write simple fractions, for example half of 6 = 3 and recognise the equivalence of two-quarters and one-half.	To know capacity is measured in millilitres (ml) and litres (l). To know there are 1000ml in a litre. To know millilitres are used for measuring smaller amounts of liquid. To know litres are used for measuring larger amounts of liquid. To know temperature is measured in degrees.					
	Key vocabulary (tier 2) Add altogether digit estimate expanded column addition facts greater than hundreds less than make more number ones order partition place value plus sum tens tens number total zero	**Key vocabulary (tier 3)**	**Key vocabulary (tier 2)** altogether difference difference between equal groups expanded column leave less lots of minus take away multiplication repeated addition sequence subtract subtraction groups time tables	**Key vocabulary (tier 3)** commutative arrays factor inverse operation product	**Key vocabulary (tier 2)** cone corner apex cube cuboid curved cylinder denominator edge equal equivalent face flat fraction grouping half line of symmetry numerator part pattern quarter round share sharing side solid square based pyramid straight third three-dimensional triangular based pyramid triangular prism two-dimensional vertex vertical whole	**Key vocabulary (tier 3)**	**Key vocabulary (tier 2)** capacity change (money) degrees five-past five-to gram half-past heavier hour kilogram lighter litre mass millilitre minute month pence pound quarter-past quarter-to second temperature ten-past ten-to twenty-five-to twenty-past twenty-to volume	**Key vocabulary (tier 3)** Celsius	**Key vocabulary (tier 2)** block diagram clockwise/anti-clockwise compare data east forwards/backwards interpret key left/right north pattern pictogram quarter/half/three-quarter turn sequence south symbol table tally chart total west	**Key vocabulary (tier 3)**	**Key vocabulary (tier 2)** division equation grouping groups of half halving multiplication part sharing times times table whole	**Key vocabulary (tier 3)**