	TERM 1A		**TERM 1B**		**TERM 2A**		**TERM 2B**		**TERM 3A**		**TERM 3B**	
	Number: Place value **Number: Addition and subtraction**		**Number: Multiplication and division**		**Statistics**		**Number: Fractions, decimals and percentages**		**Measurement**		**Geometry: Properties of shape**	
Y3 Mathematics	**Key knowledge** To know ten ones are called one ten. To know ten tens are called one hundred. To know ten hundreds are called one thousand. To know the value of digits becomes ten times bigger as digits move to the left. To know the value of digits becomes ten times smaller as digits move to the right. To know the value of a digit relies on its place in the number. To know 100 can be divided into two, four, five and ten equal parts and these units are used in graphing and measure contexts. To know addition is commutative; subtraction is not. To know the language of addition: addend plus addend is equivalent to sum/total. To know the whole can be found by adding the parts. To know when the whole and one of the parts is known, the other part can be worked out. To know the language of subtraction: minuend subtract subtrahend is equivalent to difference. To know if 3 ones and 4 ones is 7 ones, then 3 tens plus 4 tens is 7 tens; 3 hundreds and 4 hundreds is 7 hundreds etc. To know we exchange when subtracting using a vertical algorithm;	**Key skills** To be able to count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number. To be able to recognise the place value of each digit in a 3-digit number (100s, 10s, 1s). To be able to compare and order numbers up to 1,000. To be able to identify, represent and estimate numbers using different representations. To be able to read and write numbers up to 1,000 in numerals and in words. To be able to solve number problems and practical problems involving these ideas. To be able to add and subtract numbers mentally, including: a three-digit number and 1s; a three-digit number and 10s; a three-digit number and 100s. To be able to add and subtract numbers with up to 3 digits, using formal written methods of columnar addition and subtraction. To be able to estimate the answer to a calculation and use inverse operations to check answers. To be able to solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.	**Key knowledge** To know multiplication is the inverse of division. To know multiplication is both commutative and associative. Division is not. To know the commutative law states that the order of the numbers does not affect the result. a x b = b x a. To know multiplication can be seen as repeated addition. 3 x 4 = 4 + 4 + 4 = 3 + 3 + 3. To know division can be thought of as repeated subtraction. The number of times 5 can be taken away from 40 is 8. To know the language of division: dividend ÷ divisor = quotient. To know the language of multiplication: • Factor x factor = product. • Multiplicand (group size) x multiplier (number of groups) = product.	**Key skills** To be able to recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. To be able to write and calculate mathematical statements for multiplication and division using the multiplication tables that I know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. To be able to 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.	**Key knowledge** To know information can be recorded in a tally chart or table and presented it in a graph. To know presenting data in a graph makes the data easier to interpret. To know a bar chart uses vertical or horizontal bars of equal width to show frequency of a distribution. To know a pictogram is a chart on which pictures show the frequency of a distribution. A pictogram includes a title and a key, explaining what the pictures mean.	**Key skills** To be able to interpret and present data using bar charts, pictograms and tables. To be able to solve one-step and two-step questions [for example 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.	**Key knowledge** To know when a whole is divided into equal parts each part is a fraction of the whole. To know ten tenths is equivalent to one whole. To know a fraction can be expressed as one number written above another e.g. ½. To know the bottom part of the fraction is the denominator. This represents the total number of equal parts. To know the numerator is the top part of the fraction; this represents the number of parts being considered. To know a unit fraction has a numerator of one. To know to add fractions with the same denominator, add the numerators together. To know that to subtract fractions with the same denominator, subtract the numerators. To know comparing fractions with the same denominator can be achieved by ordering the numerators. To know ordering unit fractions can be achieved by arranging them from the largest denominator to the smallest denominator.	**Key skills** To be able to count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10. To be able to recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. To be able to recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. To be able to recognise and show, using diagrams, equivalent fractions with small denominators. To be able to add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7. To be able to compare and order unit fractions, and fractions with the same denominators. To be able to solve problems that involve all of the above.	**Key knowledge** To know 1 cm = 10 mm 1 m = 100 cm 1 litre = 1000 millilitres 1 kilogram = 1000 grames. To know the distance around the edge of a shape is its perimeter. To know a day is the amount of time it takes the Earth to spin once on its axis. To know this period is divided into 24 hours which can be broken down into smaller units: minutes and seconds. These are the units used in telling the time. To know there are 60 minutes in one hour. To know there are 60 seconds in one minute. To know the 12-hour clock is a time system in which the hours in a day are broken down into two groups of 12 hours. To know the 24-hour clock is a time system in which the 24 hours of the day are not expressed as am and pm but are numbered straight through from 0 – 23. To know Roman numerals can be used on a 12 hour clock I= 1; V=5, X = 10.	**Key skills** To be able to measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml). To be able to measure the perimeter of simple 2D shapes. To be able to add and subtract amounts of money to give change, using both £ and p in practical contexts. To be able to tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks. To be able 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 o'clock, am/pm, morning, afternoon, noon and midnight. To be able to compare durations of events (for example, to calculate the time taken by particular events or tasks).	**Key knowledge** To know an angle is formed whenever two lines meet at a point. The angle is measured by the amount of turn that one line must travel about this point to arrive at the position of the other line. To know angles are measured in degrees: To know there are several types of angles, classified by their size: To know a whole turn (full turn or complete turn) is equal to 360°. To know a right angle is a quarter of a full turn and equal to 90°. To know a straight angle is half a full turn and equal to 180°. To know parallel lines are always the same distance apart and they will never meet.	**Key skills** To be able to draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them. To be able to recognise angles as a property of shape or a description of a turn. To be able to identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle. To be able to identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Year 3 Curriculum Map - MATHS

one ten can be exchanged for ten ones; one hundred can be exchanged for ten tens; one thousand can be exchanged for ten hundreds. To know we regroup when adding using a vertical algorithm; fourteen ones can be regrouped as one ten and four ones. To know when using a vertical algorithm for addition and subtraction we start with the lowest value digit on the right.										

Key vocabulary (tier 2)	Key vocabulary (tier 3)	Key vocabulary (tier 2)	Key vocabulary (tier 3)	Key vocabulary (tier 2)	Key vocabulary (tier 3)	Key vocabulary (tier 2)	Key vocabulary (tier 3)	Key vocabulary (tier 2)	Key vocabulary (tier 3)	Key vocabulary (tier 2)	Key vocabulary (tier 3)
add addend addition altogether column column subtraction commutative difference digit estimate exchange greater hundreds inverse operation less less than minuend minus more than multiples negative numbers number facts ones order partition place plus represent subtract subtrahend sum take away tens thousands total value zero		array commutative divide by fact family factor multiple multiply by prime number product regrouping times tables		axes bar chart data frequency horizontal axis interpret intervals pictogram scale symbol table tally vertical axis		denominator eights equal equivalent fifths fraction halves non-unit fraction numerator quarters sixths tenths thirds unit fraction		24-hour clock amount analogue capacity change coin combinations convert gram heavier kilogram lighter litre mass millilitre pence penny perimeter pounds roman numerals value volume		acute angle apex curved degrees edge flat face half turn horizontal obtuse parallel perpendicular point polygon properties quarter turn right angle surface three dimensional three-quarter turn two-dimensional vertex vertical vertices	