# Curriculum Map- Maths Year 3

| Subject - Maths | | | | | |
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| | | **Learning Objectives** | **Knowledge Expectations** | **Vocabulary Expectations** | **Links to prior/post learning** |
| **Y3** | **Chapter 1-**<br>**Numbers to 1 1 000** | To learn to count in hundreds and understand the place value.<br><br>To compose and decompose numbers consisting of hundreds, tens and ones.<br><br>To understand the value of each digit in a 3-digit number.<br><br>To be able to compare and order numbers.<br><br>To be able to count in fifties.<br><br>To recognise, describe and continue a number pattern.<br><br>To be able to recognise, describe and complete more complicated number patterns.<br><br>To be able to count in fours and eights. | To know 2 sets of objects can be compared using <>=<br><br>To know 'whole' in the entire number<br><br>To know that numbers can be partition into different 'parts'<br><br>To know there is a set counting sequence for numbers beyond 20<br><br>To know objects can be counted by making groups of 10<br><br>To know each number on the number line has a unique position<br><br>To know each two-digit number can be partitioned into a 10s part and a ones part<br><br>To know each three-digit number can be partitioned into a 100s part, 10s part and a ones part<br><br>To understand the 100s, 10s and ones structure of 3 digit numbers can be used to support addition<br><br>To know that counting in 10's can be easier than counting in 1's<br><br>To know that counting in 100's can be easier than counting in 10's | number numeral zero one, two, three … twenty teens numbers, eleven, twelve … twenty twenty-one, twenty-two … one hundred, two hundred … one thousand none how many …? count, count (up) to, count on (from, to), count back (from, to) forwards backwards count in ones, twos, fives, tens, threes, fours, eights, fifties and so on to hundreds equal to equivalent to is the same as more, less most, least tally many odd, even multiple of, factor of sequence continue predict few pattern pair, rule relationship > greater than < less than Roman numerals, ones tens, hundreds digit one-, two- or three-digit number place, place value stands for, represents exchange the same number as, as many as more, larger, bigger, greater fewer, smaller, less fewest, smallest, least most, biggest, largest, greatest one more, ten more, one hundred more one less, ten less, one hundred less equal to compare order size first, second, third … twentieth twenty-first, twenty-second … last, last but one before, after next between halfway between above, below | Year 2:<br><br>To count numbers up to 100 using concrete objects: counting up by ones and tens.<br><br>To understand each digit in a number has its own value.<br><br>To be able to compare numbers using place-value knowledge gained from previous lessons.<br><br>To use the number bond strategy to deepen understanding of place value.<br><br>To count in ones and tens; to introduce boundary crossing using tens and ones.<br><br>To recognise and describe patterns with more complex numbers, in particular 3 and 5<br><br>Year 4:<br><br>To count in hundreds and twenty-fives.<br><br>To count in thousands.<br><br>To count in thousands, hundreds, tens and ones.<br><br>To use an understanding of place value to count.<br><br>To understand place value in a 4-digit number.<br><br>To compare and order numbers. |

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| | | | To know that number bonds to 20 follow a similar pattern to number bonds to 10<br><br>To know that 0-9 can be used when writing one digit, two digit and three digit numbers<br><br>To know that numbers can be partitioned in different ways e.g. 53- 5 tens and 3 ones, 4 tons and 13 ones<br><br>To know that numbers can be represented in different ways and using different manipulatives<br><br>To know that counting in 50's follows a similar pattern to counting in 5s- make the number 10 times bigger<br><br>To know that counting in 100's follows a similar pattern to counting in 10s- make the number 10 times bigger<br><br>To know that number patterns can be continued | Estimating guess how many ...? estimate nearly roughly close to approximate, approximately about the same as just over, just under,<br><br>exact, exactly too many, too few enough, not enough round, nearest, round to the nearest ten, hundred round up, round down | To compare and order 4-digit numbers.<br><br>To make number patterns (100, 10, 1 more and less).<br><br>To make number patterns (4-digit numbers).<br><br>To count in sixes, sevens and nines.<br><br>To round numbers to the nearest 1000.<br><br>To round numbers to the nearest 10, 100 and 1000.<br><br>To round numbers to estimate.<br><br>To round numbers to estimate |

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| | **Chapter 2-**<br><br>**Addition and Subtraction** | To understand the commutative law of addition and the corresponding addition and subtraction facts.<br><br>To add a 3-digit number to a 1-digit number with no regrouping or renaming.<br><br>To add a 3-digit number to a multiple of 10 (2-digit number) without regrouping or renaming.<br><br>To add multiples of 100 to a 3-digit number. without regrouping or renaming.<br><br>To add two 3-digit numbers without regrouping or renaming; introduction of the column method of addition.<br><br>To add a 3-digit number to a 1-digit number, with renaming.<br><br>To add with renaming in tens.<br><br>To add two 3-digit numbers with renaming the ones.<br><br>To add two 3-digit numbers with renaming the tens.<br><br>To add with renaming in ones and tens. | To know = means the same as<br><br>To know + means that you are combining two or more numbers to find a total<br><br>To know that – is the inverse of +<br><br>To know that + is the inverse of -<br><br>To know that you can find the total by counting on<br><br>To understand that the total will be the largest number.<br><br>To know that addition can be done in any order<br><br>To know - means that you are finding the difference between two amounts<br><br>To know that you can find the difference by counting back<br><br>To know that subtraction always starts with the whole number<br><br>To understand that the answer will be fewer than the whole number<br><br>To know that if there is more than 9 in a column that needs to be renamed e.g. 11 ones becomes 1 ten and 1 one | addition add, more, and make, sum, total altogether double near double half, halve one more, two more … ten more … one hundred more how many more to make …? how many more is … than …? how much more is …? subtract take away how many are left/left over? how many have gone? one less, two less, ten less … one hundred less how many fewer is … than …? how much less is …? difference between equals is the same as number bonds/pairs/facts missing number tens boundary, hundreds boundary | Year 2:<br><br>To be able to add a 1-digit number to a 2-digit number without regrouping the ones.<br><br>To add tens by recognising its relationship to adding ones.<br><br>To add 2-digit numbers where one is a multiple of 10.<br><br>To add with tens and ones where the ones are both more than zero.<br><br>To add 1-digit numbers to a 2-digit number resulting in renaming of ones.<br><br>To add two 2-digit numbers where renaming is expected.<br><br>To subtract ones from a 2-digit number.<br><br>To subtract 2-digit multiples of 10 from 2-digit multiples of 10.<br><br>To subtract tens from a 2-digit number with the ones being more than zero.<br><br>To subtract a 2-digit number by another 2-digit number.<br><br>To subtract a 2-digit number by a 1-digit number with renaming.<br><br>To subtract a 2-digit number by another 2-digit number where renaming has to occur.<br><br>To add three one-digit numbers<br><br>Year 4:<br><br>To find totals and sums. |

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| | | To do simple subtraction by taking away a 1-digit number from a 2-digit number without renaming.<br><br>To do simple subtraction by taking away a 1-digit number from a 3-digit number without renaming.<br><br>To subtract multiples of 10, up to 90, from a 3-digit number.<br><br>To subtract hundreds from a 3-digit number and to subtract multiples of 1 and 10 from a 3-digit number.<br><br>To understand simple subtraction of a 3-digit number by another 3-digit number using the column method<br><br>To subtract with renaming in tens and ones.<br><br>To subtract with renaming hundreds.<br><br>To subtract with regrouping tens and hundreds.<br><br>To subtract a 3-digit number with zeros. | To know that when adding multiples of 100, the ones digit and tens digit stays the same<br><br>To know that you will need to rename one ten into 10 ones when subtracting if the digit is smaller<br><br>To know that you will need to rename one hundred into 10 tens when subtracting if the digit is smaller<br><br>To know that you can add/subtract more than two numbers<br><br>To know when adding/subtracting more than two numbers, use number bond facts to help.<br><br>To know that the commutative law lets you swap numbers around for addition and still get the same answer<br><br>To know that when subtracting multiples of 100, the ones digit and tens digit stays the same<br><br>To know that when subtracting multiples of 10, the ones digit and the hundred digit stays the same<br><br>To know that number families can help to solve a problem e.g. 30+70=100, 100-30=70 | | To add without renaming.<br><br>To add with renaming (in the ones column).<br><br>To add with renaming (in tens and ones).<br><br>To add with renaming (in hundreds, tens and ones).<br><br>To add using mental strategies (making tens, hundreds and thousands).<br><br>To add using mental strategies.<br><br>To find the difference.<br><br>To subtract without renaming (column subtraction).<br><br>To subtract with renaming (in tens and ones).<br><br>To subtract with renaming (in hundreds, tens and ones).<br><br>To subtract with renaming (in hundreds, tens and ones).<br><br>To subtract with renaming.<br><br>To subtract using mental strategies.<br><br>To solve addition and subtraction word problems.<br><br>To solve word problems (addition and subtraction).<br><br>To solve multi-step word problems. |

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| | | To solve addition and subtraction problems using the bar model.<br><br>To use the bar model to solve problems.<br><br>To solve complicated problems involving addition and subtraction using a comparative bar model heuristic.<br><br>To solve more complicated problems involving addition and subtraction using a comparative bar model heuristic. | To know to add the ones before tens when adding a two digit number<br><br>To know to add the ones, then tens and then hundreds when adding a 3 digit number | | |
| | **Chapter 3-**<br><br>**Multiplication and Division** | To multiply by 3.<br><br>To multiply by 3 using relational properties.<br><br>To multiply by 4.<br><br>To multiply by 4.<br><br>To multiply by 4 and 8.<br><br>To multiply by 8; to use commutative law to multiply.<br><br>To multiply by 8. | To know that objects can be shared into equal groups<br><br>To know that the groups can look different, but still have the same amount<br><br>To know that doubling is the same as saying two groups of the same amount<br><br>To know that equal groups can be counted to find the total<br><br>To know that multiplication is repeated addition and you add the same number multiple times<br><br>To know multiplication can be done in any order | multiplication multiply multiplied by, multiple, factor groups of times product once, twice, three times … ten times repeated addition division dividing, divide, divided by, divided into left, left over, remainder grouping sharing, share, share equally one each, two each, three each … ten each group in pairs, threes … tens equal groups of doubling halving array row, column number patterns multiplication table multiplication fact, division fact | Year 2:<br><br>To realise that multiplication is the same as repeated addition with equal groups<br><br>To focus on understanding and learning the 2 times table.<br><br>To use concrete materials and pictorial representations to multiply by 2.<br><br>To cover the basics of the 5 times table and to highlight multiplication visually as equal groups.<br><br>To recall and use the 5 times table. |

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| | | To divide by 3.<br><br>To divide by 4.<br><br>To find relationships between multiplication and division.<br><br>To divide by 4 and 8.<br><br>To solve word problems with multiplication.<br><br>To solve word problems that involve division.<br><br>To solve more word problems involving multiplication and division using the bar model heuristic<br><br>To solve problems using a variety of strategies. | To know that objects can be shared into equal groups<br><br>To know that the groups can look different, but still have the same amount<br><br>To know that groups can be counted in 2's, 3's, 4's, 8's 5's and 10's<br><br>To know that doubling is the same as saying two groups of the same amount<br><br>To know that equal groups can be counted<br><br>To know that even numbers can be shared into equal groups<br><br>To know that objects can be shared equally to find the total in each group<br><br>To know that division will always start with whole number<br><br>To know that groups need to be equal and any amount left is called the remainder<br><br>To know that odd numbers can be shared into equal groups but there will be a remainder<br><br>To know when you multiply by 10 you make the number 10 times bigger<br><br>To know when you divide by 10, you make the number 10 times smaller | | To introduce the 10 times table by focusing on the numbers found in the 10 times table.<br><br>To look at the 10 times table in more detail by looking at patterns and relationships.<br><br>To investigate links between the 2, 5 and 10 times tables.<br><br>To understand commutative law.<br><br>To use knowledge of the 2, 5 and 10 times tables to further investigate commutative law.<br><br>To use the 2, 5 and 10 times tables to solve word problems.<br><br>Year 4:<br><br>To multiply by 6.<br><br>To multiply by 7.<br><br>To multiply by 9.<br><br>To multiply by 9 (relational understanding).<br><br>To multiply by 11.<br><br>To multiply by 11.<br><br>To multiply by 12.<br><br>To divide by 6. |

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| | | | To know that when multiplying whole by 2 it will end in 0, 2, 4, 6 or 8<br><br>To know that when multiply a whole number by 5 it will end in 0 or 5<br><br>To know when multiply a whole number by 10 it will end in a 0<br><br>To know that the commutative law lets you swap numbers around for multiplication and still get the same answer<br><br>To know that sharing is when the quotient represent the number of obects in each group<br><br>To know that grouping is when the quotient is the number of groups | | To divide by 7.<br><br>To divide by 9.<br><br>To multiply and divide by 11 and 12.<br><br>To divide with remainders.<br><br>To solve word problems involving multiplication and division.<br><br>To solve problems involving multiplication and division.<br><br>To solve multi-step problems (in the context of measures).<br><br>To solve problems involving multiplication and division (all possibilities).<br><br>To solve problems involving multiplication and division (multi-step).<br><br>To solve problems involving multiplication and division (scaling/comparison). |
| | **Chapter 4- Further Multiplication and Division** | To multiply multiples of 10 by a 1-digit number.<br><br>To multiply any 2-digit number by a 1-digit number.<br><br>To multiply more 2-digit numbers.<br><br>To multiply with regrouping. | To know that objects can be shared into equal groups<br><br>To know that the groups can look different, but still have the same amount<br><br>To know that groups can be counted in 2's, 3's, 4's, 8's 5's and 10's<br><br>To know that doubling is the same as saying two groups of the same amount | multiplication multiply multiplied by, multiple, factor groups of times product once, twice, three times … ten times repeated addition division dividing, divide, divided by, divided into left, left over, remainder grouping sharing, share, share equally one each, two each, three each … ten each group in pairs, threes … tens equal groups of doubling halving array row, column | Year 2:<br><br>To understand that grouping is a way of dividing.<br><br>To be able to divide by sharing an amount.<br><br>To be able to divide by 2. The two strategies used here are splitting into groups of x and splitting into equal groups of many. |

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| | | To multiply with regrouping.<br><br>To understand simple division of a 2-digit number by a 1-digit number.<br><br>To divide where there is a need to regroup.<br><br>To use long division to divide.<br><br>To solve word problems that involve multiplication.<br><br>To solve word problems involving division.<br><br>To solve more challenging word problems. | To know that equal groups can be counted<br><br>To know that even numbers can be shared into equal groups<br><br>To know that objects can be shared equally to find the total in each group<br><br>To know that division will always start with whole number<br><br>To know that groups need to be equal and any amount left is called the remainder<br><br>To know that odd numbers can be shared into equal groups but there will be a remainder<br><br>To know when you multiply by 10 you make the number 10 times bigger<br><br>To know when you divide by 10, you make the number 10 times smaller<br><br>To know that when multiplying whole by 2 it will end in 0, 2, 4, 6 or 8<br><br>To know that when multiply a whole number by 5 it will end in 0 or 5<br><br>To know when multiply a whole number by 10 it will end in a 0<br><br>To know that the commutative law lets you swap numbers around for multiplication and still get the same answer | number patterns multiplication table multiplication fact, division fact | To be able to divide by 5 and identify links with multiplying by 5.<br><br>To be able to divide by 10 and identify links with multiplying by 10.<br><br>To use multiplication and division skills to identify family facts in a number sentence.<br><br>To understand and solve word problems which require the use of the multiplication and division skills covered in this chapter.<br><br>To be able to link whether odd or even numbers can be divisible by 2, 5 or 10<br><br>Year 4:<br><br>To multiply by 0 and 1.<br><br>To divide by 1.<br><br>To understand commutativity.<br><br>To multiply three numbers.<br><br>To multiply with multiples of 10<br><br>To multiply 2-digit numbers.<br><br>To multiply 2-digit numbers with renaming.<br><br>To multiply multiples of 100.<br><br>To multiply 3-digit numbers. |

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| | | | To know that sharing is when the quotient represent the number of obects in each group<br><br>To know that grouping is when the quotient is the number of groups | | To multiply 3-digit numbers (renaming).<br><br>To multiply 3-digit numbers.<br><br>To divide 2-digit numbers.<br><br>To divide 3-digit numbers.<br><br>To divide 2-digit numbers with remainders<br><br>To divide 3-digit numbers.<br><br>To divide 3-digit numbers with remainders<br><br>To solve multiplication and division word problems.<br><br>To solve multiplication and division word problems (multi-step) |
| | **Chapter 5- Length** | To use metres and centimetres to measure objects.<br><br>To write length in centimetres only by converting metres to centimetres.<br><br>To convert kilometres to metres.<br><br>To convert length from metres to kilometres and metres.<br><br>To compare two lengths. | To know that length is measured from end to end<br><br>To know that length can be measured by different objects<br><br>To know that rulers can be used to measure how long/ tall an object is<br><br>To know that objects can be ordered from shortest to tallest<br><br>To know that length can be measure in cm, m and km<br><br>To know 2 or more sets of objects can be compared using <>= | further, furthest, near, close distance apart … between … to … from perimeter ruler metre stick, tape measure, | Year 2:<br><br>To measure length in metres.<br><br>To measure length in centimetres.<br><br>To be able to compare length for objects using 'greater than' and 'less than' symbols.<br><br>To be able to compare different lengths using centimetres as the unit of measure.<br><br>To be able to compare and measure various line lengths: both straight and curvy. |

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| | | Solve measurement-related word problems.<br><br>To solve other word problems.<br><br>To solve word problems further, involving multiplication<br><br>To solve word problems associated with length using division.<br><br>To solve more challenging word problems. | To know that the most effective way of measuring a line, is to make it straight<br><br>To know there are 100cm in a metre<br><br>To know there are 1,000m in a km | | To be able to solve problems involving measurement in the context of word problems.<br><br>To be able to solve addition and multiplication word problems involving measurement.<br><br>To be able to solve addition and division word problems involving measurement.<br><br>Year 4:<br><br>To measure length.<br><br>To convert units of length.<br><br>To convert units of length.<br><br>To measure perimeter in centimetres and millimetres.<br><br>To solve problems in measurement (reading scales). |
| | **Chapter 6- Mass** | To measure mass using weighing scales and compare the mass of objects using grams and kilograms.<br><br>To use weighing scales to measure mass when the mass is between multiples of 100 g.<br><br>To read values on a scale which are 1 kg or more. | To know that mass is the quantity of matter in an object<br><br>To know that some objects are heavier/lighter than others<br><br>To know that objects can be ordered based on their weight<br><br>To know that scales can be used to measure the weight of an object<br><br>To know that mass can be measure in g and kg | kilogram, half kilogram, gram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales | Year 2:<br><br>To understand that mass is measured in kilograms and by using weighing scales.<br><br>To be able to measure mass in grams and to understand that it is a smaller unit of measure than a kilogram.<br><br>To be able to measure mass accurately in grams using weighing scales. |

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| | | To weigh heavier items where the markers in the scales represent 200 g each.<br><br>To solve word problems relating to mass with addition and subtraction.<br><br>To solve word problems relating to mass using multiplication.<br><br>To solve word problems relating to mass using division. | To know 2 or more sets of objects can be compared using <>=<br><br>To know that scales have markers to show the mass of an object | | To be able to compare the mass of two different objects accurately.<br><br>To be able to compare the mass of three objects and use the appropriate vocabulary.<br><br>To solve word problems in the context of mass.<br><br>To solve word problems involving mass.<br><br>Year 4:<br><br>To measure mass.<br><br>To measure mass.<br><br>To convert units of mass. |
| | **Chapter 7- Volume** | To measure volume in millilitres.<br><br>To measure capacity in millilitres.<br><br>To measure volume using millilitres and litres.<br><br>To measure volume in millilitres and litres from a 'homemade' bottle with markings. | To know that containers can be full, half full etc.<br><br>To know that capacity is the amount something can hold<br><br>To know containers can have the same/different capacity but different volumes<br><br>To know that objects can be ordered based on their capacity<br><br>To know that volume is the space covered by an object<br><br>To know that volume is measured in ml and l | litre, half litre, millilitre capacity volume full empty more than less than half full quarter full holds, contains container, | Year 2:<br><br>To compare volume in different-sized containers using the terms 'greater than,' 'less than,' 'greatest' and 'least.'<br><br>To compare the volume of different containers using non-standard units.<br><br>To measure volume using litres and determine whether an amount is 'more than,' 'less than' or 'equal to' a litre.<br><br>To measure volume using millilitres and litres; to determine how many ml there are in 1 l. |

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| | | To measure volume using millilitres and litres in comparison to 1 l.<br><br>To measure larger capacity in litres and millilitres.<br><br>To solve basic word problems related to volume.<br><br>To solve more word problems.<br><br>To solve word problems through division.<br><br>To solve two-step word problems. | To know 2 or more sets of objects can be compared using <>=<br><br>To know that scales have markers to show the volume | | To solve word problems involving bar models with litres as the standard unit.<br><br>To solve word problems using ml and l, including problems involving difference.<br><br>To solve word problems involving volume and multiplication.<br><br>Year 4:<br><br>To measure volume.<br><br>To measure volume.<br><br>To convert units of volume. |
| | **Chapter 8- Money** | To consolidate previous learning about denominations of both notes and coins; to use simple addition to count amounts of money.<br><br>To name amounts of money including coins above 100p; to regroup and rename 100p as £1 as a key strategy.<br><br>To find multiple ways of showing an amount of money. | To know each coin/note has a different value<br><br>To know that money is used to buy items<br><br>To know that items cost different amounts<br><br>To know the value of each coin/note<br><br>To know that coins/notes look different<br><br>To know that coins and notes can be combined to make an amount<br><br>To know the £ represent a pound<br><br>To know that different coins can make the same amount | money coin penny, pence, pound price, cost buy, bought, sell, sold spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much …? how many …? total | Year 2:<br><br>To identify standard UK coins and notes and write their names.<br><br>To count notes in sequences of 5 and 10; to recognise the value of notes by appearance.<br><br>To count coins in sequences of their value; to recognise the value of coins by appearance.<br><br>To represent amounts of money using coins and notes; to count coins and notes using their denominations.<br><br>To create equal amounts of money using different coins. |

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| | | To add money by adding together the pounds and pence separately.<br><br>To add amounts of money together using different methods; to consolidate the addition of pounds and pence separately.<br><br>To consolidate 'making a pound' as a strategy for adding amounts of money where the coins equal more than 99p<br><br>To learn the 'make a pound' strategy with number bond diagrams; to consolidate the strategies associated with the addition of money.<br><br>To use multiple methods for subtracting amounts of money, including concrete materials and the column method.<br><br>To use visual comparison to subtract amounts of money; to consolidate column subtraction where there is no regrouping of pence required.<br><br>To use number bonds to subtract amounts of money; | To know 2 or more amounts can be compared using <>=<br><br>To know that change can be given when buying something<br><br>To know there are 100p in £1<br><br>To know to add pence first when add £.p | | To exchange denominations of money for different coins.<br><br>To compare different amounts of money using coins.<br><br>To add money together to determine the total amount.<br><br>To calculate change from £100 or less; to use the bar model approach to represent amounts of money.<br><br>To solve more complex word problems using bar modelling as a primary method.<br><br>Year 4:<br><br>To record amounts of money.<br><br>To record amounts of money.<br><br>To compare total amounts of money.<br><br>To round to the nearest pound (whole number).<br><br>To solve money problems (addition and subtraction).<br><br>To solve money problems (multiplication).<br><br>To solve money problems (comparison).<br><br>To estimate amounts of money |

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| | | to develop number sense through decision making.<br><br>To use number bonds as the primary strategy for subtracting amounts of money; to split pounds and pence simultaneously when subtracting amounts of money.<br><br>To learn the 'counting on' strategy for calculating change; to consolidate the number bonds strategy for calculating change.<br><br>To solve word problems involving money using bar modelling as the key strategy; to learn how to use comparative models where pupils are solving by seeing the smaller amount inside of the larger amount.<br><br>To use part-whole bar models to represent word problems; to apply addition and subtraction strategies to solve word problems. | | | |
| | **Chapter 9- Time** | To use the terms 'a.m.' and 'p.m.' correctly to identify morning or afternoon/evening. | To know that the days of the weeks/months of the year remains in the same order | time days of the week, Monday, Tuesday … months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, fortnight, | Year 2:<br><br>To tell and write time to 5-minute intervals. |

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| | | To learn to tell time to the minute; to understand the relationship between the minute hand and hour hand.<br><br>To consolidate and apply a variety of vocabulary used to express the time.<br><br>To compare analogue and digital time; to represent time using both analogue and digital methods.<br><br>To tell time before the hour using the hour and minute hands.<br><br>To learn to tell time using 24-hour notation; to use analogue time and 24-hour notation interchangeably.<br><br>To tell the time on an analogue clock using Roman numerals.<br><br>To measure time in seconds and milliseconds.<br><br>To measure time in seconds using a stopwatch; to consolidate previous learning about seconds. | To know there are 60 seconds in a minute<br><br>To know ther are 60 minutes in 1 hour<br><br>To know that events can be ordered<br><br>To know that when the minute hand is at 12 it is o'clock<br><br>To know that when the minute hand is at 12 and the hour hand is pointing at a number it is _ o'clock<br><br>To know that when the minute hand is at 6 it is half past<br><br>To know that quicker means something is faster<br><br>To know that later means that is hasn't happened yet<br><br>To know the minute hand is longer than the hour hand<br><br>To know there are 5 minutes between each number on the clock<br><br>To know events can be timed<br><br>To know you can tell the time on a digital or analogue clock<br><br>To know that a.m is midnight to midday<br><br>To know that pm is mid day to midnight<br><br>To know there are 24 hours in a day | month, year, century birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next, first, last midnight calendar, date now, soon, early, late, earliest, latest quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest, takes longer, takes less time how long ago? how long will it be to …? how long will it take to …? how often? always, never, often, sometimes usually once, twice hour, o'clock, half past, quarter past, quarter to 5, 10, 15 … minutes past a.m., p.m. clock, clock face, watch, hands digital/analogue clock/watch, timer hour hand, minute hand hours, minutes, seconds Roman numerals 12-hour clock time, 24-hour clock time | To tell time to 5-minute intervals and to the hour.<br><br>To sequence events of the day by looking at analogue clocks and pictures.<br><br>To draw hands on an analogue clock to show the correct time.<br><br>To find the duration of time using an analogue clock in 30- and 60-minute intervals.<br><br>To find the duration of time to 5-minute intervals.<br><br>To find the ending of a duration of time from different 5-minute starting points.<br><br>To find the ending time in intervals of 5 minutes from delayed starts.<br><br>To find the starting time from 30-minute and 1-hour interval durations.<br><br>To find the start of multiple durations of time using a common end time.<br><br>To compare durations of time from the least amount to the most amount of time and vice vera.<br><br>Year 4:<br><br>To tell the time on a 24-hour clock.<br><br>To convert between minutes and seconds. |

# Curriculum Map- Maths Year 3

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| | | To consolidate measuring time in seconds; to conduct a time experiment using seconds.<br><br>To measure time in hours using an analogue clock.<br><br>To consolidate the measurement of time in hours.<br><br>To measure time in hours using analogue clocks and timelines; to count backwards in time by the hour.<br><br>To measure the passage of time in minutes using an analogue clock and a timeline.<br><br>To measure time to the minute when it crosses into the next hour; to use number bonds to calculate the passage of time.<br><br>To measure time in minutes, counting backwards to determine the starting point; to use number bonds and timelines to calculate the passage of time.<br><br>To determine how many seconds are in a minute; to | To know that time can be measured in milliseconds<br><br>To know that there are 1,000 milliseconds in a second<br><br>To know the meaning of each number on an analogue clock- hour and miniutes | | To convert between hours and minutes.<br><br>To solve time problems.<br><br>To convert between units of time.<br><br>To solve word problems (duration). |

# Curriculum Map- Maths Year 3

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| | | use multiplication to calculate the number of seconds in a number of minutes.<br><br>To convert seconds into minutes using number bonds.<br><br>To calculate the number of days in a month; to learn which months have 31, 30 and 28/29 days.<br><br>To find the duration of days for different activities. | | | |
| | **Chapter 10-**<br><br>**Picture Graphs and Bar Charts** | To construct picture graphs from a set of data; to present data with pictures that represent more than one item.<br><br>To construct bar graphs from a set of data; to use proportion to reflect precise difference in quantity.<br><br>To read and interpret information from a bar graph; to use and understand vocabulary related to bar graphs.<br><br>To read bar graphs where the scale is not a multiple of all quantities measured. | To know that graphs are used to show data<br><br>To know the scales can be set in different intervals<br><br>To know that graphs can be read to find out an amount<br><br>To know that graphs/charts can give us information<br><br>To know that the scale can go up in different amounts | count, tally, sort, vote graph, block graph, pictogram represent group, set list, table, chart, bar chart, frequency table Carroll diagram, Venn diagram label, title, axis, axes diagram most popular, most common least popular, least common | Year 2:<br><br>To be able to read a picture graph with confidence.<br><br>To be able to read and interpret a picture graph with confidence.<br><br>To be able to read and interpret a picture graph where the value of the picture can represent more than 1.<br><br>Year 4:<br><br>To draw and read picture graphs and bar graphs.<br><br>To draw and read bar graphs.<br><br>To draw and read line graphs.<br><br>To draw and read a line graph.<br><br>To draw and read line graphs (drawing focus) |

# Curriculum Map- Maths Year 3

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| | | To read bar graphs where the scale is made up of larger increments. | | | |
| | **Chapter 11- Fractions** | To count in tenths; to recognise tenths and be able to determine how many tenths are shaded.<br><br>To make number pairs to create 1; to combine fractions to make 1.<br><br>To add fractions with the same denominator.<br><br>To consolidate adding fractions with the same name; to learn how fractions can add to 1.<br><br>To subtract fractions with the same name.<br><br>To find equivalent fractions through paper folding and shading.<br><br>To find equivalent fractions using paper folding and shading.<br><br>To find equivalent fractions; to place fractions on a number line. | To know that objects can be shared into equal groups<br><br>To know that 'half' means two equal parts<br><br>To know that 'whole' means one part<br><br>To know that 'quarter' means 4 equal parts<br><br>To know that 'third' means 3 equal parts<br><br>To know that all parts needs to be equal<br><br>To know that doubling is the same as saying two groups of the same amount<br><br>To know that halving is sharing in to two equal groups<br><br>To know that fractions can be ordered<br><br>To know that the numerator is the number above the line in a fraction<br><br>To know that the denominator is the number below the line in a fraction<br><br>To know that the numerator tells us how many part of the whole<br><br>To know the denominator tells us how many pieces the whole is made up of. | fraction equivalent fraction mixed number numerator, denominator equal part equal grouping equal sharing parts of a whole half, two halves one of two equal parts quarter, two quarters, three quarters one of four equal parts one third, two thirds one of three equal parts sixths, sevenths, eighths, tenths … | Year 2:<br><br>To make equal parts from a whole using simple and complex methods.<br><br>To show and recognise halves and quarters.<br><br>To show and identify more than one quarter using materials and pictures.<br><br>To show and identify thirds in shapes; to use the vocabulary 'numerator' and 'denominator' when referring to fractions.<br><br>To identify and name fractions by looking at the number of pieces and how many are shaded in.<br><br>To recognise equivalent fractions in quarters, thirds and halves.<br><br>To compare and order similar fractions by looking at the size of the pieces shaded.<br><br>To compare and order fractions with different denominators.<br><br>To count the number of wholes and parts to form mixed numbers.<br><br>To count in halves and place halves onto a number line using pictures. |

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| | | To find fractions equivalent to 1 /2; to use pictorial representations and multiplication to show equivalence.<br><br>To find equivalent fractions using concrete objects and pictorial representations.<br><br>To find equivalent fractions using pictorial representations and multiplication.<br><br>To find the simplest fraction using visualisation and concrete materials.<br><br>To find the simplest fraction using pictorial representations and division.<br><br>To find equivalent fractions using multiplication and division; to determine whether or not a fraction is equivalent. | To know that you can find fractions of a quantity or a shape<br><br>To know that there are 10 tenths in a whole<br><br>To know how many halves, thirds, quarters are needed to make 1<br><br>To know that the denominator stays the same when adding fractions (same denominator)<br><br>To know that the denominator stays the same when subtracting fractions (same denominator)<br><br>To know that fractions with different denominators can be the same e.g. 1/3= 2/6 | | To count in quarters and place quarters onto a number line using pictures.<br><br>To count in thirds and place thirds onto a number line using pictures.<br><br>To find fractions (half) of whole numbers.<br><br>To find a fraction (third) of a whole number.<br><br>find a fraction (quarter) of a number.<br><br>To find a fraction (half, third, quarter) of a quantity (length).<br><br>Year 4:<br><br>To count in hundredths.<br><br>To write mixed number fractions.<br><br>To show mixed number fractions on a number line.<br><br>To find equivalent fractions.<br><br>To find equivalent fractions (further practise).<br><br>To simplify mixed number fractions<br><br>To simplify improper fractions.<br><br>To add fractions. |

# Curriculum Map- Maths Year 3

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| | | | | | To add fractions (recording answers as a mixed number).<br><br>To add fractions (simplest form).<br><br>To subtract fractions.<br><br>To subtract fractions (equivalence).<br><br>To solve word problems. |
| | **Chapter 12- Angles** | To learn what makes an angle and identify angles in objects.<br><br>To see angles on the inside and outside of objects; to find angles in letters.<br><br>To find angles in shapes; to determine the relationship between the number of angles in a shape and the number of sides.<br><br>To find right angles in everyday objects; to understand what makes a right angle.<br><br>To compare angles using the terms 'right' angle and 'acute' angle; to identify acute angles as smaller angles than right angles. | To know that an angle is a figure formed by two lines<br><br>To know that when two lines join it creates an angle<br><br>To know angles can be on the inside or outside of a shape<br><br>To know that a right angle is exactly 90 degrees<br><br>To know the names of different angles- right, actute, obtuse<br><br>To know that the type of angle is determined by how many degrees it is<br><br>To know that the number of sides a shape has, determines the number of angles<br><br>To know that an acute angle is less than 90 degrees<br><br>To know that an obtuse angle is more than 90 degrees but less than 180 degrees<br><br>To know that a straight line is 180 degrees | angle … is a greater/smaller angle than right angle, acute angle obtuse angle straight line | Year 4:<br><br>To identify types of angles.<br><br>To compare angles. |

# Curriculum Map- Maths Year 3

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| | | To identify right angles and acute angles; to recognise and define an obtuse angle.<br><br>To make turns using angles vocabulary; to align the language of angles and fractions to describe turns | | | |
| | **Chapter 13-**<br><br>**Lines and Shapes** | To identify, define and create perpendicular lines; to find perpendicular lines in everyday objects.<br><br>To identify, define and create parallel lines; to find parallel lines in everyday objects.<br><br>To define and identify vertical and horizontal lines; to find vertical and horizontal lines in everyday life.<br><br>To describe 2-D shapes using familiar vocabulary about lines and angles.<br><br>To draw 2-D shapes in proportion to their size; to identify how big a shape is.<br><br>To create 3-D shapes out of nets; to use vocabulary related to 3-D shapes and their properties. | To know the name of 2d shapes- circle, square, rectangle, triangle<br><br>To know that more than 2 shapes/objects can make a pattern<br><br>To know that shapes can be grouped by the number of sides/corners<br><br>To know that 2d shapes are flat<br><br>To know that a vertices is where two sides meet<br><br>To know vertices is another word for corner<br><br>To know shapes are still the same shape, even after they are rotated<br><br>To know a line of symmetry is an imaginary line where you could fold the shape and both halves match<br><br>To know the name of 3d shapes- spheres, cubes, cuboids and pyramids<br><br>To know that more than 2 shapes/objects can make a pattern | Shape, pattern, over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey, route left, right up, down higher, lower forwards, backwards, sideways across next to, close, near, far along through to, from, towards, away from clockwise, anticlockwise compass point north, south, east, west, N, S, E, W horizontal, vertical, diagonal movement slide roll turn stretch, bend whole turn, half turn, quarter turn, three-quarter turn | Year 2:<br><br>To recognise 3-D shapes by identifying their properties.<br><br>To describe 3-D shapes and classify them using faces, vertices and edges.<br><br>To describe 3-D shapes based on the number of faces and the 2-D shapes of these faces; to construct nets of shapes into 3-D shapes.<br><br>To group 3-D shapes by similar properties.<br><br>To form 3-D structures using multiple 3-D objects.<br><br>To make and recognise patterns using 3-D shapes.<br><br>Year 4:<br><br>To classify triangles.<br><br>To classify quadrilaterals.<br><br>To identify symmetrical figures. |

# Curriculum Map- Maths Year 3

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| | | To construct 3-D shapes out of clay and discuss their properties.<br><br>To describe 3-D shapes using familiar terms; to identify properties of 3-D shapes. | To know that shapes can be grouped by the number of vertices/edges<br><br>To know that 3d shapes are solid and can be picked up<br><br>To know 3d shapes faces are 2d shapes<br><br>To know 3d shapes can be combined to make a structure<br><br>To know that perpendicular lines meet at a 90 degree angle<br><br>To know that parallel lines are lines that are the same distance apart and never meet<br><br>To know that parallel lines are lines travelling in the same direction<br><br>To know that a vertical line is a line that goes up and down<br><br>To know that a horozontial line is a line that goes from side to side<br><br>To know that some 2d shapes have parallel lines<br><br>To know that nets can make 3d shapes | | To draw lines of symmetry.<br><br>To draw symmetrical figures.<br><br>To make symmetrical figures.<br><br>To complete symmetrical figures.<br><br>To sort shapes. |

# Curriculum Map- Maths Year 3

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| | **Chapter 14-**<br><br>**Perimeter of Shape** | To determine the perimeter of basic shapes; to use grid paper to measure the perimeter of a shape.<br><br>To measure the perimeter of a shape using 1 cm grid paper.<br><br>To determine the perimeter of different shapes; to create shapes with a specific perimeter.<br><br>To find the perimeter of shapes using 2 cm grids; to identify mistakes in others' work.<br><br>To calculate the perimeter of a shape using a ruler to measure the side lengths.<br><br>To calculate the perimeter of a rectangle using multiplication and addition.<br><br>To calculate the perimeter of a square using addition and multiplication; to calculate the perimeter of rectangles and irregular shapes by adding up the length of each side.<br><br>To consolidate learning about perimeter using practical word problems; to calculate | To know the perimeter is the length of the outline of a shape<br><br>To know that the perimeter of a square can be calculated by finding one side<br><br>To know that the perimeter of a rectangle can be calculate by finding the length of one long side and one short side and adding/multiplying these<br><br>To know that perimeter can be calculated using a ruler<br><br>To know that shapes can have the same perimeter but look differently | Shape, pattern, over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey, route left, right up, down higher, lower forwards, backwards, sideways across next to, close, near, far along through to, from, towards, away from clockwise, anticlockwise compass point north, south, east, west, N, S, E, W horizontal, vertical, diagonal movement slide roll turn stretch, bend whole turn, half turn, quarter turn, three-quarter turn | Year 4:<br><br>To measure perimeter in centimetres and millimetres. |

# Curriculum Map- Maths Year 3

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| | | the perimeter of a rectangle using properties of shapes.<br><br>To calculate the perimeter of a square and a rectangle using information previously learned about the properties of shapes.<br><br>To calculate the perimeter of a rectangle when a square pie | | | |